FPL

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DEC 06 2007

BUREAU OF AIR REGULATION

December 4, 2007

Trina Vielhauer
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia St.
Tallahassee, FL 32399

Attention: Al Linero

Re: FPL West County Energy Center Unit 3
Air Permit Application and Prevention of Significant Deterioration Analysis

Dear Mr. Linero:

Please find enclosed the Air Permit Application and Prevention of Significant Deterioration Analysis prepared by Golder Associates for Unit 3 at FPL's West County Energy Center. FPL check No. 1174442, made payable to the Department of Environmental Protection in the amount of $7,500.00 for the application fee is also enclosed with this submittal.

If you have any comments or questions regarding the attached, please feel free to contact me at (561) 691-7518. You may also contact Mr. Ken Kosky of Golder Associates at (352) 336-5600 for technical questions.

Sincerely,

Barbara P. Linkiewicz

Barbara P. Linkiewicz
Director of Environmental Licensing

Attachment

cc: Ken Kosky, Golder Associates
Peter Cunningham, HGS
Michael Halpin, FDEP Siting Office

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

Golder Associates

TRANSMITTAL LETTER

RECEIVED
DEC 07 2007
BUREAU OF AIR REGULATION

To: Al Linero
FDEP

Date: December 6, 2007
Project No.: 0738-7652

Sent by: **TZ**

☐ Mail
☐ Air Freight
☐ Hand Carried
☐ UPS
☒ Federal Express

Per: **N. Vaseen**

Quantity	Item	Description
6	**Front covers and spines**	**Replacement covers and spines for WCEC Unit 3 Volume 3 (PSD)**

Remarks:

V:\Projects\2007\07387652 FPL WCEC Unit #3\Correspondence\T120607-652.doc

SITE CERTIFICATION APPLICATION
WEST COUNTY ENERGY CENTER
UNIT 3

VOLUME 3 OF 3

Submitted by:

Florida Power & Light Company
700 Universe Boulevard
Juno Beach, Florida 33408

December 2007

0738-7652

Kennard F. Kosky 11/29/07

Kennard F. Kosky, P.E.
Professional Registered Engineer No. 14996

Golder Associates Inc.*
6241 NW 23rd Street, Suite 500
Gainesville, Florida 32653-1500
*Board of Professional Engineers
Certificate of Authorization No. 00001670

SEAL

APPLICANT INFORMATION

Please supply the following information:

Applicant's Official Name *Florida Power and Light Company (FPL)*

Address *700 Universe Boulevard, Juno Beach, FL 33408*

Address of Official Headquarters *700 Universe Boulevard, Juno Beach, FL 33408*

Business Entity (corporation, partnership, co-operative) *Corporation*

Names, owners, etc. *Florida Power and Light Company (an investor-owned electric utility)*

Name and Title of Chief Executive Officer *Armando J. Olivera, President*

Name, Address, and Phone Number of Official Representative responsible for obtaining certification *Barbara Linkiewicz, Environmental Licensing Manager, New Generation Projects, Environmental Services, 700 Universe Boulevard, Juno Beach, FL 33408 Phone: (561) 691-7518 Fax: (561) 691-7049*

Site Location (county) *20505 State Road 80, Loxahatchee, Palm Beach County, FL 33470*

Nearest Incorporated City *Wellington, FL (about 0.1 mile south of nearest boundary)*

Latitude and Longitude *26°41' 42.4" 80°22' 29.1" (HRSG Stack Unit 3; 2nd stack toward north; approx. center of power blocks).*

UTMs: Northerly *2,952.654 km N*

Easterly *562.202 km E (Zone 17)*

Section, Township, Range *Portions of Sections 29 and 32 of Township 43S, Range 40E*

Location of any directly associated transmission facilities (counties) *Not Applicable*

Name Plate Generating Capacity *Site Certification: Unit 3 Nominal 1,250 MW (2011).*

Capacity of Proposed Additions and Ultimate Site Capacity (where applicable):

Remarks (additional information that will help identify the applicant):
Project Name: West County Energy Center (WCEC) Unit 3

EXHIBIT A

LEGAL DESCRIPTION

Part of Parcel I in Sections 29 and 32, Township 43 South, Range 40 East, Palm Beach County, Florida described as follows: Commencing at the Northwest corner of Section 29, Township 43 South, Range 40 East, Palm Beach County, Florida, thence South 88°52’46” East 745.00 feet along the North line of Section 29 to the East right-of-way line of the Florida Power & Light Company corridor as recorded in O.R.B. 2222, Page 1696, thence South 0°49’13” West 589.00 feet along a line parallel with the West line of said Section 29, along the East right-of-way line of the aforementioned Florida Power & Light Company corridor to the Southwest corner of the East 900 feet of the West 1,645 feet of the North 589 feet of said Section 29 and the point of beginning of Parcel II, thence South 88°52’46” East 1,200.00 feet along the South line of the East 900 feet of the West 1,645 feet of the North 589 feet of said Section 29 and its Easterly extension, thence South 0°49’13” West 4,658.85 feet along a line parallel with East right-of-way line of the Florida Power & Light company corridor, to the North line of Section 32, Township 43 South, Range 40 East, thence South 0°56’55” West 3,378.92 feet along a line parallel with the East right-of-way line of the aforesaid Florida Power & Light Company corridor to the North right-of-way line of State Road 80 thence North 88°28’14” West 1,100.09 feet along said right-of-way line of State Road 80, to the East right-of-way line of the Florida Power & Light Company corridor, thence North 0°56’55” East 880.76 feet along a line parallel with said West line of Section 32, Township 43 South, Range 40 East, thence North 89°03’05” West 100.00 feet at right angles to the preceding course, then North 0°56’55” East 2,501.94 feet along the East right-of-way line of Florida Power & Light Company corridor to the South line of Section 29, Township 43 South, Range 40 East, thence North 0°49’13” East 4,647.51 feet along said right-of-way line to the Point of Beginning.

Parcel = Approximately 220 acres.

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LIST OF FIGURES

LIST OF ACRONYMS AND ABBREVIATIONS

AADT	Average Annual Daily Traffic
AAQS	Ambient Air Quality Standards
ANSI	American National Standard Institute
AP	Agricultural Production
API	American Petroleum Institute
BACT	Best Available Control Technology
BOCC	Board of County Commissioners
Btu/lb	British thermal units per pound
°C	degrees Celsius
CAA	Clean Air Act
CALPUFF	California Puff Model
CEM	continuous emission monitoring
CFR	Code of Federal Regulations
cfs	cubic feet per second
Cl	chloride
cm	centimeter
CO	carbon monoxide
CO_2	carbon dioxide
CT	combustion turbine
dB	decibel
dBA	A-weighted decibel
DEM	Digital Elevation Model
DLN	dry-low NO_x
EPA	U.S. Environmental Protection Agency
ERP	Environmental Resource Permit
°F	degrees Fahrenheit
F.A.C.	Florida Administrative Code
FADS	Florida Acid Deposition Study
FAS	Floridan Aquifer System
FDACS	Florida Department of Agriculture and Consumer Services
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FEMA	Federal Emergency Management Agency
FFWCC	Florida Fish and Wildlife Conservation Commission
FLM	Federal Land Manager
FLUCFCS	Florida Land Use, Cover and Forms Classification System
FNAI	Florida Natural Area Inventory
FPL	Florida Power & Light Company
FPSC	Florida Public Service Commission
F.S.	Florida Statutes

LIST OF ACRONYMS AND ABBREVIATIONS
(continued)

FSA	Florida Statistical Abstract
ft	foot
ft^2	square foot
ft^2/day	square feet per day
ft-bgs	feet below ground surface
ft-bsl	feet below sea level
ft-msl	feet above mean sea level
GE	General Electric
GEP	good engineering practice
gpd	gallons per day
gpm	gallons per minute
H_2O	water vapor
HRSG	heat recovery steam generator
HSH	highest, second-highest
Hz	hertz
I	Interstate Highway
ICU	intermediate confining unit
IRP	integrated resource planning
ISCST	Industrial Source Complex Short Term
IWAQM	Interagency Workgroup on Air Quality Models
kg	kilogram
kg/km^2-mo	kilograms per square kilometer per month
km	kilometer
kV	kilovolt
kWh	kilowatt hour
lb/hr	pounds per hour
lb/yr	pounds per year
LECRWSP	Lower East Coast Regional Water Supply Plan
LFA	Lower Floridan Aquifer
LOS	Level of Service
LOSA	Lake Okeechobee Service Area
m	meter
mgd	million gallons per day
mg/L	milligrams per liter
MHI	Mitsubishi Heavy Industries
mi^2	square mile
MM4	Mesoscale Model – Generation 4
MM5	Mesoscale Model – Generation 5
MMBtu/hr	million British thermal units per hour
MMcf/hr	million cubic feet per hour

LIST OF ACRONYMS AND ABBREVIATIONS
(continued)

mph	miles per hour
msl	mean sea level
MW	megawatt
Na^+	sodium
NEPA	National Environmental Policy Act
NGVD	National geodetic vertical datum
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NP	National Park
NPS	National Park Service
NSPS	New Source Performance Standards
NWR	National Wildlife Refuge
NWS	National Weather Service
O_2	oxygen
O_3	ozone
OFW	Outstanding Florida Waters
Pa	pascal
Pb	lead
PBA	Palm Beach Aggregates, Inc.
PDD	Planned Development District
PM	particulate matter
$PM_{2.5}$	particulate matter with an aerodynamic diameter of 2.5 micrometers or less
PM_{10}	particulate matter with an aerodynamic diameter of 10 micrometers or less
ppm	parts per million
ppmvd	parts per million-dry conditions
ppt	parts per thousand
PSD	Prevention of Significant Deterioration
psf	pounds per square foot
ROW	right-of-way
RR	rural residential
RSA	rural service area
S	sulfur
SA	Special Agriculture
SAS	Surficial Aquifer System
SCA	Site Certification Application
SCR	selective catalytic reduction
SCRAM	Support Center for Regulatory Air Models
SFWMD	South Florida Water Management District

LIST OF ACRONYMS AND ABBREVIATIONS (continued)

SHPO	State Historic Preservation Officer
SIP	site implementation plan
SO_2	sulfur dioxide
SPCC	Spill Prevention Control and Countermeasure
SPL	sound pressure level
SWA	Solid Waste Authority
TDS	total dissolved solids
TDD	Traditional Development District
TIP	Transportation Improvement Program
TPY	tons per year
TRB	Transportation Research Board
TTN	Technical Transfer Network
UIC	underground injection control
UFA	Upper Floridan Aquifer
$\mu g/m^3$	micrograms per cubic meter
µg/gdw	micrograms per gram dry weight
µm	micrometer
µPa	micropascal
USA	urban service area
USACE	U.S. Army Corps of Engineers
USDW	underground source of drinking water
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VOC	volatile organic compound

VOLUME III

APPENDIX 10.1.5

FDEP LONG-FORM AIR PERMIT AND PSD APPLICATION

AIR PERMIT APPLICATION AND PREVENTION OF SIGNIFICANT DETERIORATION ANALYSIS FOR FPL WEST COUNTY ENERGY CENTER UNIT 3 PALM BEACH COUNTY, FLORIDA

Prepared For:
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, Florida 33408

Prepared By:
Golder Associates Inc.
6241 NW 23rd Street, Suite 500
Gainesville, Florida 32653-1500

November 2007
07387652

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APPLICATION FOR PERMIT

PSD REPORT

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NSPS	New Source Performance Standards
NWR	National Wildlife Refuge
NWS	National Weather Service
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VOC	volatile organic compound

APPLICATION FOR PERMIT

Department of
Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air permit. Also use this form to apply for an air construction permit:

- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- Where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- Where the applicant proposes to establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial/revised/renewal Title V air operation permit.

Air Construction Permit & Title V Air Operation Permit (Concurrent Processing Option) – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: **Florida Power and Light Company**
2. Site Name: **West County Energy Center**
3. Facility Identification Number: **0990646**
4. Facility Location...:
   Street Address or Other Locator: **4000 205th Street, North**
   City: **Loxahatchee** County: **Palm Beach** Zip Code: **33470**
5. Relocatable Facility? ☐ Yes ☒ No
6. Existing Title V Permitted Facility? ☐ Yes ☒ No

Application Contact

1. Application Contact Name: **Barbara Linkiewicz, Environmental Licensing Manager, New Capacity Projects**
2. Application Contact Mailing Address...
   Organization/Firm: **Florida Power & Light Company**
   Street Address: **700 Universe Blvd.**
   City: **Juno Beach** State: **Florida** Zip Code: **33408**
3. Application Contact Telephone Numbers...
   Telephone: **(561) 691-7518** ext. Fax: **(561) 691-7070**
4. Application Contact Email Address: **Barbara_P_Linkiewicz@fpl.com**

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 12/6/07	3. PSD Number (if applicable): PSD-FL-396
2. Project Number(s): 0990646-002-AC	4. Siting Number (if applicable):

Department of
Environmental Protection
Division of Air Resource Management
APPLICATION FOR AIR PERMIT - LONG FORM
I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air permit. Also use this form to apply for an air construction permit:
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- Where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
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Air Operation Permit – Use this form to apply for:
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- An initial/revised/renewal Title V air operation permit.

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5. Relocatable Facility? ☐ Yes ☒ No	6. Existing Title V Permitted Facility? ☐ Yes ☒ No

Application Contact

1. Application Contact Name: **Barbara Linkiewicz, Environmental Licensing Manager, New Capacity Projects**
2. Application Contact Mailing Address... Organization/Firm: **Florida Power & Light Company** Street Address: **700 Universe Blvd.** City: **Juno Beach** State: **Florida** Zip Code: **33408**
3. Application Contact Telephone Numbers... Telephone: **(561) 691-7518** ext. Fax: **(561) 691-7070**
4. Application Contact Email Address: **Barbara_P_Linkiewicz@fpl.com**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	3. PSD Number (if applicable):
2. Project Number(s):	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

This application for air permit is submitted to obtain: (Check one)

Air Construction Permit

☒ Air construction permit.

☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).

☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

Air Operation Permit

☐ Initial Title V air operation permit.

☐ Title V air operation permit revision.

☐ Title V air operation permit renewal.

☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.

☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

☐ Air construction permit and Title V permit revision, incorporating the proposed project.

☐ Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

☐ I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

Application is for the construction of a nominal 1,250 MW combined cycle unit consisting of three combustion turbines (CTs) and associated heat recovery steam generators (HRSGs) including HRSG duct burners, two emergency generators, two natural gas heaters, and one mechanical draft cooling tower.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
3A - 3C	Unit 3 : Three MPS Frame 501 G CT/HRSGs	AC1A	
	Two Emergency Generators	AC1A	
	Two Natural Gas Heaters	AC1A	
	Cooling Tower	AC1A	

Application Processing Fee

Check one: ☒ Attached - Amount: $ 7,500 ☐ Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1.	Owner/Authorized Representative Name : **Randall R. LaBauve, Vice President**
2.	Owner/Authorized Representative Mailing Address... Organization/Firm: **Florida Power & Light Company** Street Address: **700 Universe Blvd.** City: **Juno Beach** State: **Florida** Zip Code: **33408**
3.	Owner/Authorized Representative Telephone Numbers... Telephone: **(561) 691-7001** ext. Fax: **(561) 691-7070**
4.	Owner/Authorized Representative Email Address: **Randall_R_LaBauve@fpl.com**
5.	Owner/Authorized Representative Statement: *I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.* Signature Nov 20, 2007 Date

Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1.	Application Responsible Official Name:
2.	Application Responsible Official Qualification (Check one or more of the following options, as applicable): ☐ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. ☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively. ☐ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. ☐ The designated representative at an Acid Rain source.
3.	Application Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
4.	Application Responsible Official Telephone Numbers... Telephone: ( ) - ext. Fax: ( ) -
5.	Application Responsible Official Email Address:
6.	Application Responsible Official Certification: *I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.* __________________ ____________ Signature Date

APPLICATION INFORMATION

Professional Engineer Certification

1.	Professional Engineer Name: **Kennard F. Kosky** Registration Number: **14996**
2.	Professional Engineer Mailing Address... Organization/Firm: **Golder Associates Inc.**** Street Address: **6241 NW 23rd Street, Suite 500** City: **Gainesville** State: **FL** Zip Code: **32653**
3.	Professional Engineer Telephone Numbers... Telephone: **(352) 336-5600** ext.**516** Fax: **(352) 336-6603**
4.	Professional Engineer Email Address: **kkosky@golder.com**
5.	Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☒, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Kennard F. Kosky — 11/29/07

Signature — Date

(seal)

* Attach any exception to certification statement.

**** Board of Professional Engineers Certificate of Authorization #00001670**

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates... Zone **17** East (km) **562.19** North (km) **2953.04**		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) **26/41/54.98** Longitude (DD/MM/SS) **80/22/29.54**	
3. Governmental Facility Code: **0**	4. Facility Status Code: **A**	5. Facility Major Group SIC Code: **49**	6. Facility SIC(s): **4911**
7. Facility Comment : **The project consists of one nominal 1,250-MW power block with three CT/HRSG trains, two emergency generators, two gas heaters, and one mechanical draft cooling tower. See Scope of Application and the PSD Report.**			

Facility Contact

1. Facility Contact Name: **Barbara Linkiewicz, Environmental Licensing Manager, New Capacity Projects**
2. Facility Contact Mailing Address... Organization/Firm: **Florida Power & Light Company** Street Address: **700 Universe Blvd.** City: **Juno Beach** State: **Florida** Zip Code: **33408**
3. Facility Contact Telephone Numbers: Telephone: **(561) 691-7518** ext. Fax: **(561) 691-7070**
4. Facility Contact Email Address:

Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I. that is not the facility "primary responsible official."

1. Facility Primary Responsible Official Name:
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Facility Primary Responsible Official Telephone Numbers... Telephone: ( ) - ext. Fax: ( ) -
4. Facility Primary Responsible Official Email Address:

FACILITY INFORMATION

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a "major source" and a "synthetic minor source."

1. ☐ Small Business Stationary Source	☐ Unknown
2. ☐ Synthetic Non-Title V Source	
3. ☒ Title V Source	
4. ☒ Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. ☐ Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. ☒ Major Source of Hazardous Air Pollutants (HAPs)	
7. ☐ Synthetic Minor Source of HAPs	
8. ☒ One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. ☐ One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. ☒ One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. ☐ Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12. Facility Regulatory Classifications Comment: **1. CT and HRSG Duct Burners – NSPS Subpart KKKK** **2. Emergency Generator – NSPS Subpart IIII; NESHAP Subpart ZZZZ**	

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
PM	A	N
PM_{10}	A	N
SO_2	A	N
NO_x	A	N
CO	A	N
VOC	A	N

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

1. Pollutant Subject to Emissions Cap	2. Facility Wide Cap [Y or N]? (all units)	3. Emissions Unit ID No.s Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap

7. Facility-Wide or Multi-Unit Emissions Cap Comment:

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☒ Attached, Document ID: **PSD Report** ☐ Previously Submitted, Date:____
2.	Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☒ Attached, Document ID: **PSD Report** ☐ Previously Submitted, Date:____
3.	Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☒ Attached, Document ID: **PSD Report** ☐ Previously Submitted, Date:____

Additional Requirements for Air Construction Permit Applications

1.	Area Map Showing Facility Location: ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable (existing permitted facility)
2.	Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL): ☒ Attached, Document ID: **PSD Report**
3.	Rule Applicability Analysis: ☒ Attached, Document ID: **PSD Report**
4.	List of Exempt Emissions Units (Rule 62-210.300(3), F.A.C.): ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable (no exempt units at facility)
5.	Fugitive Emissions Identification: ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable
6.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.): ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable
7.	Source Impact Analysis (Rule 62-212.400(5), F.A.C.): ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable
8.	Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable
9.	Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.): ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable
10.	Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): ☐ Attached, Document ID:____ ☒ Not Applicable

FACILITY INFORMATION

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.): ☐ Attached, Document ID:____ ☐ Not Applicable (no exempt units at facility)	

Additional Requirements for Title V Air Operation Permit Applications

1.	List of Insignificant Activities (Required for initial/renewal applications only): ☐ Attached, Document ID:____ ☐ Not Applicable (revision application)
2.	Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought): ☐ Attached, Document ID:____ ☐ Not Applicable (revision application with no change in applicable requirements)
3.	Compliance Report and Plan (Required for all initial/revision/renewal applications): ☐ Attached, Document ID:____ Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.
4.	List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only): ☐ Attached, Document ID:____ ☐ Equipment/Activities On site but Not Required to be Individually Listed ☐ Not Applicable
5.	Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only) : ☐ Attached, Document ID:____ ☐ Not Applicable
6.	Requested Changes to Current Title V Air Operation Permit: ☐ Attached, Document ID:____ ☐ Not Applicable

Additional Requirements Comment

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

   ☐ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

   ☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

   ☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
Three identical Mitsubishi Power Systems (MPS) Frame 501 G CTs with HRSG duct burners. Units designated as 3A, 3B, and 3C.

3. Emissions Unit Identification Number: **3A, 3B, and 3C**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C	**2009**	**2011**	**49**	☒ Yes ☐ No

9. Package Unit:
Manufacturer: **MPS** Model Number: **Frame 501 G**

10. Generator Nameplate Rating: **(See PSD Report)** MW

11. Emissions Unit Comment:
The power block will have a nominal capacity of 1,250 MW consisting of three CT/HRSG trains. Emission unit information is presented for one CT/HRSG. Any differences in the information contained in the form and the emission calculations contained in the PSD Report are due to round-off. The values in the PSD Report govern. See PSD Report.

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description: **Natural Gas** **- Selective Catalytic Reduction (SCR)** **Ultra Low-Sulfur Light Fuel Oil** **- Water Injection** **- Selective Catalytic Reduction (SCR)**
2. Control Device or Method Code(s): **25, 28, 65**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:			
2. Maximum Production Rate:			
3. Maximum Heat Input Rate: **2,471** million Btu/hr			
4. Maximum Incineration Rate:	pounds/hr tons/day		
5. Requested Maximum Operating Schedule:	**24** hours/day **52** weeks/year		**7** days/week **8,760** hours/year
6. Operating Capacity/Schedule Comment: **Maximum heat input rates are as follows:** **2,471 MMBtu/hr - Natural Gas-firing (LHV), baseload, 35°F.** **2,248 MMBtu/hr - Ultra Low-Sulfur Light Fuel Oil-firing (LHV), baseload, 35°F.**			

C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **See PSD Report**		2. Emission Point Type Code: **1**
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **Exhausts through the HRSG stack.**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **149** feet	7. Exit Diameter: **22** feet
8. Exit Temperature: **195** °F	9. Actual Volumetric Flow Rate: **1,360,000** acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet
13. Emission Point UTM Coordinates... Zone: **17** East (km): **562.202** North (km): **2,952.654**		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) **26/41/42.4** Longitude (DD/MM/SS) **80/22/29.1**
15. Emission Point Comment: **Emission point characteristics for baseload and natural gas-firing at 59 degrees F. Tables 2-1 and 2-2 of the PSD Report show emission point characteristics for different operating conditions.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type): **Internal Combustion Engines; Electric Generation; Distillate Oil (Diesel); Turbine**		
2. Source Classification Code (SCC): **2-01-001-01**	3. SCC Units: **1,000 Gallons burned**	
4. Maximum Hourly Rate: **16.2**	5. Maximum Annual Rate: **8,108.2**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.0015**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **130.5**
10. Segment Comment: **Fuel usage based on baseload at 59 degrees F, 7.1 pounds per gallon (lb/gal), and fuel LHV of 18,387 Btu/lb. Annual fuel usage based on 500 hours per year (hr/yr) operation. See Section 2.0 in PSD Report for fuel usage during different operating conditions.**		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): **Internal Combustion Engines; Electric Generation; Natural Gas; Turbine**		
2. Source Classification Code (SCC): **2-01-002-01**	3. SCC Units: **Million cubic feet natural gas burned**	
4. Maximum Hourly Rate: **2.5**	5. Maximum Annual Rate: **21,895.1**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **933.4**
10. Segment Comment: **Fuel usage based on baseload at 59 degrees F, fuel LHV of 20,940 Btu/lb, and natural gas density of 0.0446 lb/cubic foot. Annual natural gas usage based on 8,760 hours per year (hr/yr) operation. See Section 2.0 in PSD Report for natural gas usage during different operating conditions.**		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			EL
PM_{10}			EL
SO_2			EL
NO_x	25, 28, 65	25, 28, 65	EL
CO			EL
VOC			EL

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **38.0** lb/hour **44.0** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **38.0 lb/hour** Reference: **FPL, 2007; Golder, 2007.**	7. Emissions Method Code: **5**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:
Hourly emissions = 38.0 lb/hr (Oil firing, 35°F, Base mode).
Annual Emissions = (35.9 lb/hr x 500 hr/yr + 10.8 lb/hr x 2,880 hr/yr + 7.24 lb/hr x 5,380 hr/yr) x ton/2,000 lb = 44.0 TPY (see Table 2-4 of PSD Report).
Emissions are for one CT/HRSG.

11. Potential Fugitive and Actual Emissions Comment:
Hourly emissions based on base-load, oil firing at 35°F.
Annual emissions based on base-load at 59°F for 500 hr/yr of oil-firing, 2,880 hr/yr of duct firing with NG, and 5,380 hr/yr of NG-firing.
See Tables 2-1 through 2-4 of the PSD Report for maximum hourly and annual emissions for different operating conditions.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **10% Opacity**	4. Equivalent Allowable Emissions: **38.0** lb/hour **9.0** tons/year
5. Method of Compliance: **Annual VE test using EPA Method 9; if oil-firing more than 500 hrs. Equivalent Annual Emissions = 35.9 lb/hr x 500 hrs/yr x ton/2,000 lb = 9.0 TPY.**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on oil-firing (baseload, 59°F). See Table 2-4 of PSD Report.**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **10% Opacity**	4. Equivalent Allowable Emissions: **11.55** lb/hour **15.6** tons/year
5. Method of Compliance: **Annual VE test using EPA Method 9.**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on gas and duct burner firing (baseload, 59°F). See Table 2-4 of PSD Report. Equivalent Annual Emissions = 10.8 lb/hr x 2,880 hrs/yr x ton/2,000 lb = 15.6 TPY.**	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **10% Opacity**	4. Equivalent Allowable Emissions: **8.0** lb/hour **31.5** tons/year
5. Method of Compliance: **Annual VE test using EPA Method 9.**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on gas-firing (baseload, 59°F). See Table 2-4 of PSD Report. Equivalent Annual Emissions = 7.2 lb/hr x 8,760 hrs/yr x ton/2,000 lb = 31.5 TPY.**	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM10**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **38.0** lb/hour **44.0** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **38.0 lb/hr** Reference: **FPL, 2007; Golder, 2007.**	7. Emissions Method Code: **5**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:
Hourly emissions = 38.0 lb/hr (Oil firing, 35°F, Base mode).
Annual Emissions = (35.9 lb/hr x 500 hr/yr + 10.8 lb/hr x 2,880 hr/yr + 7.24 lb/hr x 5,380 hr/yr) x ton/2,000 lb = 44.0 TPY (see Table 2-4 of PSD Report).
Emissions are for one CT/HRSG.

11. Potential Fugitive and Actual Emissions Comment:
Hourly emissions based on base-load, oil firing at 35°F.
Annual emissions based on base-load at 59°F for 500 hr/yr of oil-firing, 2,880 hr/yr of duct firing with NG, and 5,380 hr/yr of NG-firing.
See Tables 2-1 through 2-4 of the PSD Report for maximum hourly and annual emissions for different operating conditions.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **10% Opacity**	4. Equivalent Allowable Emissions: **38.0** lb/hour **9.0** tons/year
5. Method of Compliance: **Annual VE test using EPA Method 9; if oil-firing more than 400 hrs.**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on oil-firing (baseload, 59°F). See Table 2-4 of PSD Report. Equivalent Annual Emissions = 35.9 lb/hr x 500 hrs/yr x ton/2,000 lb = 9.0 TPY.**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **10% Opacity**	4. Equivalent Allowable Emissions: **11.55** lb/hour **15.6** tons/year
5. Method of Compliance: **Annual VE test using EPA Method 9.**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on gas and duct burner firing (baseload, 59°F). See Table 2-4 of PSD Report. Equivalent Annual Emissions = 10.8 lb/hr x 2,880 hrs/yr x ton/2,000 lb = 15.6 TPY.**	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **10% Opacity**	4. Equivalent Allowable Emissions: **8.0** lb/hour **31.5** tons/year
5. Method of Compliance: **Annual VE test using EPA Method 9.**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on gas-firing (baseload, 59°F). See Table 2-4 of PSD Report. Equivalent Annual Emissions = 7.2 lb/hr x 8,760 hrs/yr x ton/2,000 lb = 31.5 TPY.**	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **SO2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **17.7** lb/hour **66.3** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **2 grains / 100 SCF** Reference: **FPL, 2007; Golder, 2007.**	7. Emissions Method Code: **5**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:
Hourly emissions = 17.7 lb/hr (gas and duct firing, 35°F, Base mode).
Annual Emissions = (16.9 lb/hr x 2,880 hr/yr + 14.28 lb/hr x 5,880 hr/yr) x ton/2,000 lb = 66.3 TPY (see Table 2-4 of PSD Report).
Emissions are for one CT/HRSG.

11. Potential Fugitive and Actual Emissions Comment:
Hourly emissions based on base-load, natural gas with duct burner firing at 35°F.
Annual emissions based on base-load at 59°F for 2,880 hr/yr of duct firing with NG, and 5,880 hr/yr of NG-firing.
See Tables 2-1 through 2-4 of the PSD Report for maximum hourly and annual emissions for different operating conditions.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.0015% S oil**	4. Equivalent Allowable Emissions: **3.7** lb/hour **0.9** tons/year
5. Method of Compliance: **Fuel sampling**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on oil-firing (baseload, 59°F). See Table 2-4 of PSD Report. Equivalent Annual Emissions = 3.6 lb/hr x 500 hrs/yr x ton/2,000 lb = 0.9 TPY.**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **2 grains/100 scf**	4. Equivalent Allowable Emissions: **17.7** lb/hour **24.3**tons/year
5. Method of Compliance: **Fuel sampling**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on gas and duct burner firing (baseload, 59°F). See Table 2-4 of PSD Report. Equivalent Annual Emissions = 16.9 lb/hr x 2,880 hrs/yr x ton/2,000 lb = 24.3 TPY.**	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **2 grains / 100 SCF**	4. Equivalent Allowable Emissions: **15.1** lb/hour **62.6** tons/year
5. Method of Compliance: **Fuel Sampling**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on gas firing (baseload, 59°F). See Table 2-4 of PSD Report. Equivalent Annual Emissions = 14.3 lb/hr x 8,760 hrs/yr x ton/2,000 lb = 62.6 TPY.**	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **NOX**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **78.5** lb/hour **108.9** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **2 ppmvd (corrected) gas** **8 ppmvd (corrected) oil** Reference: **FPL, 2007; Golder, 2007.**	7. Emissions Method Code: **5**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:
Hourly emissions = 78.5 lb/hr (Oil firing, 35°F, Base mode).
Annual Emissions = (75.2 lb/hr x 500 hr/yr + 24.3 lb/hr x 2,880 hr/yr + 20.5 lb/hr x 5,380 hr/yr) x ton/2,000 lb = 108.9 TPY (see Table 2-4 of PSD Report).
Emissions are for one CT/HRSG.

11. Potential Fugitive and Actual Emissions Comment:
Hourly emissions based on base-load, oil firing at 35°F.
Annual emissions based on base-load at 59°F for 500 hr/yr of oil-firing, 2,880 hr/yr of duct firing with NG, and 5,380 hr/yr of NG-firing.
See Tables 2-1 through 2-4 of the PSD Report for maximum hourly and annual emissions for different operating conditions.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **8 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **75.2** lb/hour **18.8** tons/year
5. Method of Compliance: **EPA Method 20 and 7E; CEM - 24-hour block average**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on oil-firing (baseload, 59°F). See Table 2-4 of PSD Report.** **Equivalent Annual Emissions = 75.2 lb/hr x 500 hrs/yr x ton/2,000 lb = 18.8 TPY.**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **2 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **24.3** lb/hour **35.0** tons/year
5. Method of Compliance: **EPA Method 20 and 7E; CEM - 24-hour block average**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on gas and duct burner firing (baseload, 59°F). See Table 2-4 of PSD Report.** **Equivalent Annual Emissions = 24.3 lb/hr x 2,880 hrs/yr x ton/2,000 lb = 35.0 TPY.**	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **2 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **20.5** lb/hour **89.8** tons/year
5. Method of Compliance: **EPA Method 20 and 7E; CEM - 24-hour block average**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on gas firing (baseload, 59°F). See Table 2-4 of PSD Report.** **Equivalent Annual Emissions = 20.5 lb/hr x 8,760 hrs/yr x ton/2,000 lb = 89.8 TPY.**	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **59.1** lb/hour **161.4** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **4.1 ppmvd (corrected) gas; 7.6 ppmvd (corrected) CT/DB; 8 ppmvd (corrected) oil** Reference: **FPL, 2007; Golder, 2007; PSD-FL-354.**	7. Emissions Method Code: **5**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:
Hourly emissions = 59.1 lb/hr (Oil firing, 35°F, Base mode).
Annual Emissions = (45.8 lb/hr x 500 hr/yr + 56.3 lb/hr x 2,880 hr/yr + 25.6 lb/hr x 5,380 hr/yr) x ton/2,000 lb = 161.4 TPY (see Table 2-4 of PSD Report).
Emissions are for one CT/HRSG.

11. Potential Fugitive and Actual Emissions Comment:
Hourly emissions based on base-load, oil firing at 35°F.
Annual emissions based on base-load at 59°F for 500 hr/yr of oil-firing, 2,880 hr/yr of duct firing with NG, and 5,380 hr/yr of NG-firing.
See Tables 2-1 through 2-4 of the PSD Report for maximum hourly and annual emissions for different operating conditions.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **8 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **47.8** lb/hour **11.5** tons/year
5. Method of Compliance: **Annual test using EPA Method 10; if oil-firing more than 400 hrs. CEM data 24-hour block average of 8 ppmvd and 12-month rolling average of 6 ppmvd for CT/HRSG.**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on oil-firing (baseload, 59°F). See Table 2-4 of PSD Report. Equivalent Annual Emissions = 45.8 lb/hr x 500 hrs/yr x ton/2,000 lb = 11.5 TPY.**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **7.6 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **59.1** lb/hour **81.1** tons/year
5. Method of Compliance: **Annual test using EPA Method 10. CEM data 24-hour block average of 8 ppmvd and 12-month rolling average of 6 ppmvd for CT/HRSG.**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on gas and duct burner firing (baseload, 59°F). See Table 2-4 of PSD Report. Equivalent Annual Emissions = 56.3 lb/hr x 2,880 hrs/yr x ton/2,000 lb = 81.1 TPY.**	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **4.1 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **26.9** lb/hour **112.1** tons/year
5. Method of Compliance: **Annual test using EPA Method 10. CEM 12-month rolling average of 6 ppmvd for CT/HRSG.**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on gas firing (baseload, 59°F). See Table 2-4 of PSD Report. Equivalent Annual Emissions = 25.6 lb/hr x 8,760 hrs/yr x ton/2,000 lb = 112.1 TPY.**	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **20.5** lb/hour **26.1** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **6 ppmvd (corrected) oil; 1.6 ppmvd (corrected) CT/DB; 1.2 ppmvd (corrected) gas** Reference: **FPL, 2007; Golder, 2007.**	7. Emissions Method Code: **5**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: **Hourly emissions = 20.5 lb/hr (Oil firing, 35°F, Base mode).** **Annual Emissions = (19.6 lb/hr x 500 hr/yr + 6.8 lb/hr x 2,880 hr/yr + 4.3 lb/hr x 5,380 hr/yr) x ton/2,000 lb = 26.1 TPY (see Table 2-4 of PSD Report).** **Emissions are for one CT/HRSG.**	
11. Potential Fugitive and Actual Emissions Comment: **Hourly emissions based on base-load, oil firing at 35°F.** **Annual emissions based on base-load at 59°F for 500 hr/yr of oil-firing, 2,880 hr/yr of duct firing with NG, and 5,380 hr/yr of NG-firing.** **See Tables 2-1 through 2-4 of the PSD Report for maximum hourly and annual emissions for different operating conditions.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **6 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **20.5** lb/hour **4.9** tons/year
5. Method of Compliance: **EPA Methods 18, 25, or 25A at base load.**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on oil-firing (baseload, 59°F). See Table 2-4 of PSD Report. Equivalent Annual Emissions = 19.6 lb/hr x 500 hrs/yr x ton/2,000 lb = 4.9 TPY.**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **1.6 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **7.1** lb/hour **9.8** tons/year
5. Method of Compliance: **EPA Methods 18, 25, or 25A at base load.**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on gas and duct burner firing (baseload, 59°F). See Table 2-4 of PSD Report. Equivalent Annual Emissions = 6.8 lb/hr x 2,880 hrs/yr x ton/2,000 lb = 9.8 TPY.**	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **1.2 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **4.5** lb/hour **18.8** tons/year
5. Method of Compliance: **EPA Methods 18, 25, or 25A at base load.**	
6. Allowable Emissions Comment (Description of Operating Method): **Annual based on gas firing (baseload, 59°F). See Table 2-4 of PSD Report. Equivalent Annual Emissions = 4.3 lb/hr x 8,760 hrs/yr x ton/2,000 lb = 18.8 TPY.**	

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **20%** Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **60** min/hour	
4. Method of Compliance: **EPA Method 9**	
5. Visible Emissions Comment: **FDEP Rule 62-296.320(4)(b)1, F.A.C. requires 20% opacity. Excess emissions provided by Rule 62-210.700.**	

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: ☐ Rule ☒ Other
3. Allowable Opacity: Normal Conditions: **10** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 9**	
5. Visible Emissions Comment: **Proposed as BACT**	

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 2

1. Parameter Code: **EM**	2. Pollutant(s): **NO_x**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: **not yet identified** Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **CEM required pursuant to 40 CFR, Part 75. NO_x monitoring includes diluent monitor (O_2 or CO_2).**	

Continuous Monitoring System: Continuous Monitor 2 of 2

1. Parameter Code: **EM**	2. Pollutant(s): **CO**
3. CMS Requirement:	☐ Rule ☒ Other
4. Monitor Information... Manufacturer: **not yet identified** Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **CEM monitor anticipated pursuant to previous BACT determinations.**	

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☒ Attached, Document ID: **PSD Report** ☐ Previously Submitted, Date _____
2.	Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☒ Attached, Document ID: **PSD Report** ☐ Previously Submitted, Date _____
3.	Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☒ Attached, Document ID: **PSD Report** ☐ Previously Submitted, Date _____
4.	Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☒ Attached, Document ID: **PSD Report** ☐ Previously Submitted, Date _____ ☐ Not Applicable (construction application)
5.	Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____ ☒ Not Applicable
6.	Compliance Demonstration Reports/Records ☐ Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ ☐ Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ ☐ To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ ☒ Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable

Additional Requirements for Air Construction Permit Applications

1.	Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable
2.	Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable
3.	Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1.	Identification of Applicable Requirements ☐ Attached, Document ID: _____ ☐ Not Applicable
2.	Compliance Assurance Monitoring ☐ Attached, Document ID: _____ ☐ Not Applicable
3.	Alternative Methods of Operation ☐ Attached, Document ID: _____ ☐ Not Applicable
4.	Alternative Modes of Operation (Emissions Trading) ☐ Attached, Document ID: _____ ☐ Not Applicable
5.	Acid Rain Part Application ☐ Certificate of Representation (EPA Form No. 7610-1) ☐ Copy Attached, Document ID: _____ ☐ Acid Rain Part (Form No. 62-210.900(1)(a)) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☐ Not Applicable

Additional Requirements Comment

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

   ☒ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

   ☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

   ☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
Two emergency generators to supply power in the event power is not available.

3. Emissions Unit Identification Number:

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C	**2009**	**2011**	**49**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: **Caterpillar** Model Number: **3516BTA**

10. Generator Nameplate Rating: **2.25** MW

11. Emissions Unit Comment: **Two 2,250-kW emergency generators. Information based on Caterpillar, 2,250 kW Diesel Generator Set. Information in the form based on one generator. Any differences in the information contained in the form and the emission calculations contained in the PSD Report are due to round-off. The values in the PSD Report govern.**

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description: **Good combustion practices - Diesel fuel fired.**	
2. Control Device or Method Code(s): **NA**	

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:	
2. Maximum Production Rate:	
3. Maximum Heat Input Rate: **21.0** million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule: hours/day **52** weeks/year	days/week **500** hours/year
6. Operating Capacity/Schedule Comment: **The emergency generators will normally be operated 1 to 2 hours per month for testing and maintenance. The emergency generators will meet the requirements of 40 CFR Part 60 Subpart IIII.**	

C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **See PSD Report**	2. Emission Point Type Code: **1**
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	

5. Discharge Type Code: **V**	6. Stack Height: **30** feet	7. Exit Diameter: **1.0** feet
8. Exit Temperature: **916**°F	9. Actual Volumetric Flow Rate: **17,463** acfm	10. Water Vapor: %

11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet
13. Emission Point UTM Coordinates... Zone: **17** East (km): **562.2** North (km): **2,952.7**	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)
15. Emission Point Comment:	

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): **Diesel fuel combustion**		
2. Source Classification Code (SCC):	3. SCC Units: **1,000 gallons**	
4. Maximum Hourly Rate: **0.156**	5. Maximum Annual Rate: **77.75**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.0015**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **135.1**
10. Segment Comment: **Maximum annual rate based on 500 hr/yr operation for each generator.**		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			EL
PM/PM10			EL
NOx			EL
SO2	Fuel Quality		EL
VOC			EL

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **60.0** lb/hour **15.0** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **8.5 grams per horsepower hour (g/hp-hr)** Reference: **PSD-FL-354**	7. Emissions Method Code: **2**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: **See Table 2-6 in PSD Report.**	
11. Potential Fugitive and Actual Emissions Comment: **Emissions for each generator.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **8.5 g/hp-hr**	4. Equivalent Allowable Emissions: **60.0** lb/hour **15.0** tons/year
5. Method of Compliance: **Manufacturer certification of Subpart IIII standards.**	
6. Allowable Emissions Comment (Description of Operating Method): **PSD-FL-354**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **NOx**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **48.7** lb/hour **12.2** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **6.9 g/hp-hr** Reference: **PSD-FL-354**	7. Emissions Method Code: **2**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: **See Table 2-6 in PSD Report**	
11. Potential Fugitive and Actual Emissions Comment: **Emissions for each generator.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **Rule**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **6.9 g/hp-hr**	4. Equivalent Allowable Emissions: **48.7** lb/hour **12.2** tons/year
5. Method of Compliance: **Manufacturer certification of Subpart IIII standards.**	
6. Allowable Emissions Comment (Description of Operating Method): **PSD-FL-354**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

<u>Potential/Estimated Fugitive Emissions</u>

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **SO2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.03** lb/hour **0.01** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: ***0.0015% S fuel oil*** Reference: **FPL, 2007**	7. Emissions Method Code: **2**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: **See Table 2-6 in PSD Report.**	
11. Potential Fugitive and Actual Emissions Comment: **Emissions for each generator.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.0015% S fuel oil**	4. Equivalent Allowable Emissions: **0.03** lb/hour **0.01** tons/year
5. Method of Compliance: **Fuel vendor information**	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM/PM10**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **2.8** lb/hour **0.71** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.4 g/hp-hr** Reference: **PSD-FL-354**	7. Emissions Method Code: **2**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: **See Table 2-6 in PSD Report.**	
11. Potential Fugitive and Actual Emissions Comment: **Emissions for each generator.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.4 g/hp-hr**	4. Equivalent Allowable Emissions: **2.8** lb/hour **0.7** tons/year
5. Method of Compliance: **Manufacturer certification of Subpart IIII Standards.**	
6. Allowable Emissions Comment (Description of Operating Method): **PSD-FL-354**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: VOC	2. Total Percent Efficiency of Control:
3. Potential Emissions: 7.1 lb/hour 1.8 tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 1.0 g/hp-hr Reference: PSD-FL-354	7. Emissions Method Code: 2
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: See Table 2-6 in PSD Report.	
11. Potential Fugitive and Actual Emissions Comment: Emissions for each generator.	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **1.0 g/hp-hr**	4. Equivalent Allowable Emissions: **7.1** lb/hour **1.8** tons/year
5. Method of Compliance: **Manufacturer certification of Subpart IIII Standards.**	
6. Allowable Emissions Comment (Description of Operating Method): **PSD-FL-354**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **20** % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **60** min/hour	
4. Method of Compliance: **EPA Method 9**	
5. Visible Emissions Comment: **FDEP Rule 62-296.320(4)(b)1, F.A.C. requires 20 percent opacity. Excess emissions provided by Rule 62-210.700.**	

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☐ Attached, Document ID: N/A ☐ Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☒ Attached, Document ID: PSD Report ☐ Previously Submitted, Date _____
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☒ Attached, Document ID: PSD Report ☐ Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____ ☒ Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____ ☒ Not Applicable
6. Compliance Demonstration Reports/Records ☐ Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ ☐ Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ ☐ To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ ☒ Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute ☒ Attached, Document ID: PSD Report ☐ Not Applicable

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable	
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) ☐ Attached, Document ID: _____ ☒ Not Applicable	
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: _____ ☒ Not Applicable	

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements ☐ Attached, Document ID: _____ ☐ Not Applicable	
2. Compliance Assurance Monitoring ☐ Attached, Document ID: _____ ☐ Not Applicable	
3. Alternative Methods of Operation ☐ Attached, Document ID: _____ ☐ Not Applicable	
4. Alternative Modes of Operation (Emissions Trading) ☐ Attached, Document ID: _____ ☐ Not Applicable	
5. Acid Rain Part Application ☐ Certificate of Representation (EPA Form No. 7610-1) ☐ Copy Attached, Document ID: _____ ☐ Acid Rain Part (Form No. 62-210.900(1)(a)) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☒ Not Applicable	

EMISSIONS UNIT INFORMATION
Section [2]
Emergency Generators

Additional Requirements Comment

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

   ☒ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

   ☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

   ☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
   Two natural gas heaters.

3. Emissions Unit Identification Number:

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C	**2009**	**2011**	**49**	☐ Yes ☒ No

9. Package Unit:
   Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:
    Two natural gas heaters are being permitted although only one is required for Unit 3 operation. One is being permitted as a spare for WCEC. Information in form is for one natural gas heater. Any differences in the information contained in the form and the emission calculations contained in the PSD Report are due to round-off. The values in the PSD Report govern.

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
2. Control Device or Method Code(s):

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:	
2. Maximum Production Rate:	
3. Maximum Heat Input Rate: **10** million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule: hours/day **52** weeks/year	 days/week **8,760** hours/year
6. Operating Capacity/Schedule Comment:	

C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **See PSD Report**		2. Emission Point Type Code: **1**
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **30** feet	7. Exit Diameter: **1** feet
8. Exit Temperature: **500**°F	9. Actual Volumetric Flow Rate: **4,950** acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet
13. Emission Point UTM Coordinates... Zone: **17** East (km): **562.2** North (km): **2952.7**		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)
15. Emission Point Comment: **Table 2-7 presents emission point information.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): **Natural gas**		
2. Source Classification Code (SCC):	3. SCC Units: **1,000,000 SCF**	
4. Maximum Hourly Rate: **0.01**	5. Maximum Annual Rate: **83.0**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **1,055**
10. Segment Comment: **Maximum annual rate based on 8,760 hr/yr operation.**		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			EL
PM/PM10	Fuel Quality		EL
NOx			EL
SO2	Fuel Quality		EL
VOC			EL

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.8** lb/hour **3.49** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.08 lb/MMBtu** Reference: **AP-42 / PSD-FL-354**	7. Emissions Method Code: **3**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: **0.08 lb/MMBtu x 10 MMBtu/hr = 0.8 lb/hr** **0.8 lb/hr x 8,760 hr/yr / (2,000 lb/ton) = 3.49 tons per year**	
11. Potential Fugitive and Actual Emissions Comment: **PSD Report, Section 2.0, Table 2-7.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.08 lb/MMBtu**	4. Equivalent Allowable Emissions: **0.8** lb/hour **3.49** tons/year
5. Method of Compliance: **Manufacturer Certification**	
6. Allowable Emissions Comment (Description of Operating Method): **PSD-FL-354**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **NOx**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.95** lb/hour **4.2** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.095 lb/MMBtu** Reference: **AP-42 / PSD-FL-354**	7. Emissions Method Code: **3**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: **0.095 lb/MMBtu x 10 MMBtu/hr = 0.95 lb/hr** **0.95 lb/hr x 8,760 hr/yr / (2,000 lb/ton) = 4.2 tons per year**	
11. Potential Fugitive and Actual Emissions Comment: **PSD Report, Section 2.0, Table 2-7.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.095 lb/MMBtu**	4. Equivalent Allowable Emissions: **0.95** lb/hour **4.2** tons/year
5. Method of Compliance: **Manufacturer Certification**	
6. Allowable Emissions Comment (Description of Operating Method): **PSD-FL-354**	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **SO2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.054** lb/hour **0.237** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **2 gr / 100 SCF** Reference: **PSD-FL-354**	7. Emissions Method Code: **2**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: **See PSD Report, Section 2.0, Table 2-7.**	
11. Potential Fugitive and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **2 gr / 100 SCF**	4. Equivalent Allowable Emissions: **0.054** lb/hour **0.237** tons/year
5. Method of Compliance: **Fuel Vendor Information**	
6. Allowable Emissions Comment (Description of Operating Method): **PSD-FL-354**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM/PM10**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.02** lb/hour **0.079** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.002 lb/MMBtu** Reference: **AP-42 / PSD-FL-354**	7. Emissions Method Code: **3**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: **0.002 lb/MMBtu x 10 MMBtu/hr = 0.02 lb/hr** **0.02 lb/hr x 8,760 hr/yr / (2,000 lb/ton) = 0.079 tons per year**	
11. Potential Fugitive and Actual Emissions Comment: **PSD Report, Section 2.0, Table 2-7.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **10% opacity**	4. Equivalent Allowable Emissions: **0.02** lb/hour **0.079** tons/year
5. Method of Compliance: **EPA Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **PSD-FL-354**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.05** lb/hour **0.228** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.005 lb/MMBtu** Reference: **AP-42 / PSD-FL-354**	7. Emissions Method Code: **3**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: **0.005 lb/MMBtu x 10 MMBtu/hr = 0.05 lb/hr** **0.05 lb/hr x 8,760 hr/yr / (2,000 lb/ton) = 0.228 tons per year**	
11. Potential Fugitive and Actual Emissions Comment: **PSD Report, Section 2.0, Table 2-7.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: **0.05** lb/hour **0.228** tons/year
5. Method of Compliance: **Natural gas**	
6. Allowable Emissions Comment (Description of Operating Method): **PSD-FL-354**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: ☐ Rule ☒ Other
3. Allowable Opacity: Normal Conditions: **10** % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **60** min/hour	
4. Method of Compliance: **EPA Method 9**	
5. Visible Emissions Comment: **PSD-FL-354. Excess emissions provided by Rule 62-210.700.**	

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: ☐ Rule ☐ Other	
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: ☐ Rule ☐ Other	
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☒ Attached, Document ID: **PSD Report** ☐ Previously Submitted, Date _____
2.	Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☒ Attached, Document ID: **PSD Report** ☐ Previously Submitted, Date _____
3.	Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☒ Attached, Document ID: **PSD Report** ☐ Previously Submitted, Date _____
4.	Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____ ☒ Not Applicable (construction application)
5.	Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____ ☒ Not Applicable
6.	Compliance Demonstration Reports/Records ☐ Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ ☐ Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ ☐ To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ ☒ Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements ☐ Attached, Document ID: _____ ☐ Not Applicable
2. Compliance Assurance Monitoring ☐ Attached, Document ID: _____ ☐ Not Applicable
3. Alternative Methods of Operation ☐ Attached, Document ID: _____ ☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading) ☐ Attached, Document ID: _____ ☐ Not Applicable
5. Acid Rain Part Application ☐ Certificate of Representation (EPA Form No. 7610-1) ☐ Copy Attached, Document ID: _____ ☐ Acid Rain Part (Form No. 62-210.900(1)(a)) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date: _____ ☒ Not Applicable

Additional Requirements Comment

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

   ☒ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

   ☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

   ☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
   Mechanical Draft Cooling Tower associated with WCEC Unit 3

3. Emissions Unit Identification Number:

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C	**2009**	**2011**	**49**	☐ Yes ☒ No

9. Package Unit:
   Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment: **26 cell wet mechanical draft cooling tower. Any differences in the information contained in the form and the emission calculations contained in the PSD Report are due to round-off. The values in the PSD Report govern.**

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description: **Mist Eliminators.**
2. Control Device or Method Code(s): **014**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:		
2. Maximum Production Rate:		
3. Maximum Heat Input Rate:	million Btu/hr	
4. Maximum Incineration Rate:	pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	24 hours/day 52 weeks/year	7 days/week 8,760 hours/year
6. Operating Capacity/Schedule Comment:		

C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **See PSD Report**		2. Emission Point Type Code:
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **26 Cooling Tower Cells**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **63** feet	7. Exit Diameter: **35** feet
8. Exit Temperature: **97**°F	9. Actual Volumetric Flow Rate: **1,358,000** acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet
13. Emission Point UTM Coordinates... Zone: East (km): **562.2** North (km): **5952.7**		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)
15. Emission Point Comment: **Stack dimensions per cell.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

EMISSIONS UNIT INFORMATION
Section [4]
Cooling Tower

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	014		WP
PM10	014		WP

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **26.6** lb/hour **116.5** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.0005% Drift Rate** Reference: **FPL, 2007; Golder, 2007**	7. Emissions Method Code: **2**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: **See Table 2-5 in PSD Report.**	
11. Potential Fugitive and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.0005 percent of CW**	4. Equivalent Allowable Emissions: **26.6** lb/hour **116.5** tons/year
5. Method of Compliance: **Design certification from manufacturer.**	
6. Allowable Emissions Comment (Description of Operating Method): **CW = circulating water.**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM10**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **1.17** lb/hour **5.1** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.0005 percent Drift Rate** Reference: **FPL, 2007; Golder, 2007**	7. Emissions Method Code: **2**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: **See Table 2-5 in PSD Report.**	
11. Potential Fugitive and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.0005 percent of CW**	4. Equivalent Allowable Emissions: **1.17** lb/hour **5.1** tons/year
5. Method of Compliance: **Design certification from manufacturer.**	
6. Allowable Emissions Comment (Description of Operating Method): **CW = circulating water.**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☐ Attached, Document ID: **N/A** ☐ Previously Submitted, Date _____
2.	Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____
3.	Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☒ Attached, Document ID: **PSD Report** ☐ Previously Submitted, Date _____
4.	Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____ ☒ Not Applicable (construction application)
5.	Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____ ☒ Not Applicable
6.	Compliance Demonstration Reports/Records ☐ Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ ☐ Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ ☐ To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ ☒ Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute ☒ Attached, Document ID: **PSD Report** ☐ Not Applicable

Additional Requirements for Air Construction Permit Applications

1.	Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) ☒ Attached, Document ID: PSD Report ☐ Not Applicable
2.	Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) ☒ Attached, Document ID: PSD Report ☐ Not Applicable
3.	Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: ____ ☐ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1.	Identification of Applicable Requirements ☐ Attached, Document ID: ____ ☐ Not Applicable
2.	Compliance Assurance Monitoring ☐ Attached, Document ID: ____ ☐ Not Applicable
3.	Alternative Methods of Operation ☐ Attached, Document ID: ____ ☐ Not Applicable
4.	Alternative Modes of Operation (Emissions Trading) ☐ Attached, Document ID: ____ ☐ Not Applicable
5.	Acid Rain Part Application ☐ Certificate of Representation (EPA Form No. 7610-1) ☐ Copy Attached, Document ID: ____ ☐ Acid Rain Part (Form No. 62-210.900(1)(a)) ☐ Attached, Document ID: ____ ☐ Previously Submitted, Date: ____ ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) ☐ Attached, Document ID: ____ ☐ Previously Submitted, Date: ____ ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.) ☐ Attached, Document ID: ____ ☐ Previously Submitted, Date: ____ ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) ☐ Attached, Document ID: ____ ☐ Previously Submitted, Date: ____ ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) ☐ Attached, Document ID: ____ ☐ Previously Submitted, Date: ____ ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) ☐ Attached, Document ID: ____ ☐ Previously Submitted, Date: ____ ☒ Not Applicable

Additional Requirements Comment

PSD REPORT

1.0 INTRODUCTION

Florida Power & Light Company (FPL) has obtained the necessary approvals and is constructing two nominal 1,250-megawatt (MW) combined cycle units on a 220-acre Site located in unincorporated Palm Beach County, Florida, referred to as the West County Energy Center (WCEC; see Figure 1-1). WCEC Unit 1 is expected to be in commercial operation by mid-2009, with WCEC Unit 2 expected to be in commercial operation by mid-2010. WCEC Units 1 and 2 received authorization to construct with the issuance of an Air Construction/Prevention of Significant Deterioration (PSD) Permit by the Florida Department of Environmental Protection (FDEP; Project No. 0990646-001-AC; PSD-FL-354). FPL proposes to install the third unit (WCEC Unit 3) that will be in commercial operation in 2011.

WCEC Unit 3 will consist of one nominal 1,250-MW combined cycle unit of a design similar to WCEC Units 1 and 2. This configuration is referred to as a "3-on-1" combined cycle unit that will consist of three nominal 250-MW Mitsubishi Power Systems (MPS) 501G advanced combustion turbines (CTs) and three heat recovery steam generators (HRSGs), which will utilize the waste heat from the CT to produce steam to be utilized in a single steam turbine generator. WCEC Unit 3 will have a total nominal generating capacity of 1,250 MW (net), firing gas at an annual average ambient condition of 75 degrees Fahrenheit (°F) and 60-percent relative humidity. Duct burners are also proposed for each HRSG and are fired during peak demand periods to achieve the total nominal generating capacity. Duct firing will be limited to an equivalent of 2,880 hours per CT per year at the maximum firing rate.

The CTs will use dry low-NO_x (DLN) combustion technology and water injection for minimizing emissions of nitrogen oxides (NO_x) when operating on natural gas and ultra low-sulfur distillate oil ("light oil"), respectively. Each CT/HRSG will be installed with selective catalytic reduction (SCR) to further reduce emissions of NO_x. Each HRSG will be equipped with duct burners that will fire only natural gas. The primary fuel for the CTs will be natural gas, with light oil used as backup fuel. Light oil will contain a maximum sulfur content of 0.0015 percent.

The construction of WCEC Unit 3 requires an Air Construction Permit and PSD approval. PSD approval requires submission of air quality assessments for determining the facility's compliance with state and federal new source review (NSR) regulations, including addressing applicable PSD requirements. The critical aspects of these assessments include the air quality impact analyses performed using appropriate air dispersion models and the Best Available Control Technology (BACT) analyses performed to evaluate the selected emission control technology.

The U.S. Environmental Protection Agency (EPA) has implemented regulations requiring a PSD review for new and modified sources with air emissions above certain threshold amounts. EPA's PSD regulations are promulgated under 40 Code of Federal Regulations (CFR), Part 51.166. Florida's PSD regulations are codified in Rules 62-212.400 of the Florida Administrative Code (F.A.C.). The Florida PSD regulations incorporate the requirements of EPA's PSD regulations. WCEC Unit 3 will be a "major modification" of a major source under PSD rules.

Based on the emissions from WCEC Unit 3, PSD review is required for each of the following regulated pollutants:

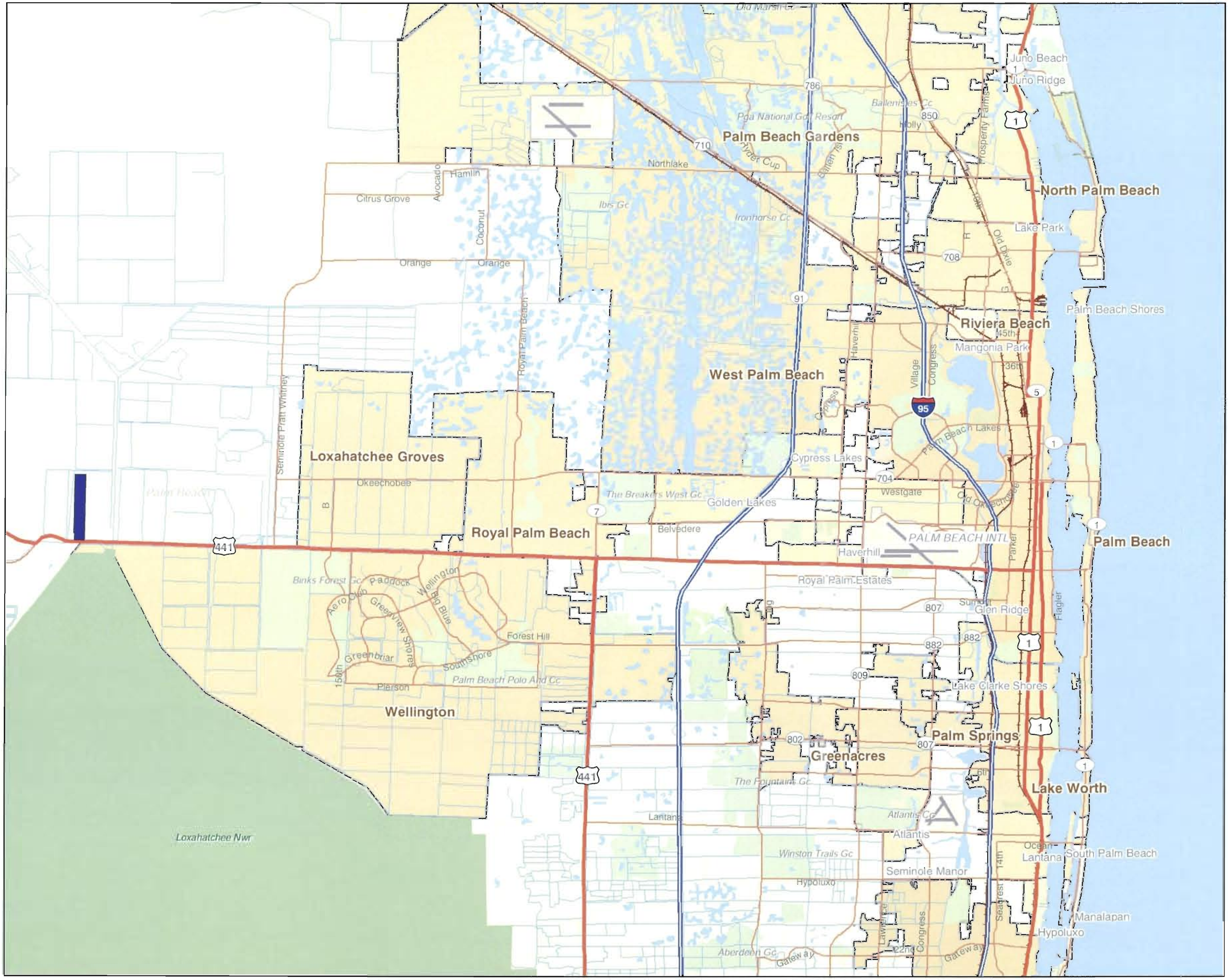
- Particulate matter (PM) as total suspended particulate matter (TSP);
- Particulate matter with aerodynamic diameter of 10 microns or less (PM_{10});
- Nitrogen dioxide (NO_2);
- Sulfur dioxide (SO_2);
- Carbon monoxide (CO);
- Volatile organic compounds (VOCs); and
- Sulfuric acid mist (SAM).

Palm Beach County has been designated as an attainment area for all criteria pollutants [i.e., attainment: ozone (O_3), PM_{10}, SO_2, CO, and NO_2; unclassifiable: lead] and is a PSD Class II area for PM_{10}, SO_2, and NO_2. Therefore, the PSD review will follow regulations pertaining to these designations.

This PSD Report is divided into seven major sections:

- Section 2.0 presents a description of WCEC Unit 3, including air emissions and stack parameters.
- Section 3.0 provides a review of the PSD and nonattainment requirements applicable to WCEC Unit 3.

- Section 4.0 includes the control technology review with discussions on BACT.
- Section 5.0 discusses the ambient air monitoring analysis (pre-construction monitoring) required by PSD regulations.
- Section 6.0 presents a summary of the air modeling approach and results used in assessing compliance of the proposed facility with ambient air quality standards (AAQS), and PSD increments.
- Section 7.0 provides the additional impact analyses for soils, vegetation, and visibility.



LEGEND

FPL West County Energy Center

REFERENCE

1. ESRI Media Kit Data and Maps. 2. WCEC Location FPL
3. Loxahatchee NWR US Fish and Wildlife Service 7/10/2002.
4. Wellington Boundary, Village of Wellington 11/14/07

0 1 2 4 Miles

N

PROJECT

WEST COUNTY ENERGY CENTER

TITLE

SITE LOCATION

FPL

PROJECT No. 073-87652			SCALE AS SHOWN	REV. 0
DESIGN	KK	11/13/07	FIGURE 1-1	
GIS	RL	11/14/07		
CHECK	NV	11/14/07		
REVIEW	KK	11/19/07		

2.0 PROJECT DESCRIPTION

2.1 Site Description

The WCEC Site encompasses 220 acres. Figure 2-1 presents the plot plan, showing the locations of WCEC Units 1 and 2 and the proposed location for WCEC Unit 3. Approximately 30 acres of the Site will be used for the WCEC Unit 3 power block. Adjacent to the Site are mining activities associated with Palm Beach Aggregates Inc. located north and east, as well as a transmission line corridor and agricultural lands located to the west. The Site elevation will be nominally 25 feet (ft) with respect to the national geodetic vertical datum (NGVD) of 1929, and about 15 ft above the surrounding terrain. The terrain surrounding the Site is flat.

No onsite storage will be provided for natural gas. Light oil will be stored in two 6.3-million-gallon tanks being installed for WCEC Units 1 and 2.

2.2 Power Plant

WCEC Unit 3 will be a 3-on-1 combined cycle unit for baseload service of similar design as WCEC Units 1 and 2. The CTs will use DLN combustion technology when firing natural gas and water injection when firing light oil to minimize NO_x formation. SCR will be installed in each HRSG to further reduce emissions of NO_x. Natural gas will be used as the primary fuel, and ultra low-sulfur light oil will be used a backup fuel. Light oil usage will be limited to the equivalent of 500 hours per year (hr/yr) per CT at full load.

The maximum heat input for each CT associated with Unit 3 is 2,471 million British thermal units per hour (MMBtu/hr) [low heating value (LHV)] for each CT when firing natural gas (100-percent capacity, 35°F). The corresponding maximum fuel usage is about 2.65 million cubic feet per hour (MMcf/hr) of natural gas for each CT. Maximum potential fuel usage at 59°F turbine inlet temperature would be about 6.56×10^{10} standard cubic feet per year (scf/yr) of natural gas for three CTs.

The HRSG duct burners associated with each CT/HRSG train will have a maximum firing rate of 475 MMBtu/hr [high heating value (HHV)] or 428 MMBtu/hr (LHV). The maximum annual fuel usage for the duct burners is based on 2,880 hr/yr at this heat input. The maximum potential annual fuel usage for the duct burners is calculated to be about 4 billion scf/yr.

Ultra low-sulfur light oil will be limited to 500 hr/yr per CT at full load. The maximum fuel use is about 16,300 gallons per hour per CT at 59°F turbine inlet and would require an annual usage of 24.4 million gallons for three CTs each operating for 500 hours and a turbine inlet temperature of 59°F. Ultra low-sulfur light oil will be delivered to the Site by truck and stored in an existing tank.

Plant performance for natural gas and oil-firing at 100 percent and lower operating loads and turbine inlet temperatures of 35°F, 59°F, 75°F, and 95°F were developed from information provided by MPS. Duct firing information was provided by HRSG vendor Nooter-Eriksen. Nominal partial load information is presented in Appendix A.

Natural gas will be transported to the Site via pipeline, and light oil will be trucked to the Site. The light oil, which will have a maximum sulfur content of 0.0015 percent, will be stored onsite in aboveground storage tanks being constructed for WCEC Units 1 and 2 that are sized to hold approximately 6.3 million gallons.

For the MPS 501G CT, the NO_x emissions will be controlled using DLN combustors to 15 parts per million by volume dry (ppmvd) (corrected to 15-percent O_2) or less. When firing ultra low-sulfur light oil, all turbines will utilize water injection to reduce NO_x emissions to 42 ppmvd (corrected to 15-percent O_2).

SCR reactors will be located in each HRSG to provide the proper operating temperature range for the required reaction between ammonia and NO_x to achieve the proposed BACT emission rate and to ensure the economical operation of the system. NO_x is reduced by a chemical reaction with the ammonia in the presence of the catalyst. The catalyst will be provided in modules, which will be installed into a structural steel reactor housing that is incorporated into the HRSG. Ammonia is carried by a diluent and injected into the exhaust gas upstream of the catalyst modules. The reactor housing will include an internal support structure for the catalyst modules, man-access, and catalyst loading openings and instrument connections for monitoring catalyst performance. The ammonia handling system will include primary and standby diluent air blowers (each sized for 100-percent capacity), ammonia flow control and measurement devices, an ammonia/air mixing chamber, distribution header(s), and an ammonia injection grid (AIG). Overall control of the system will be by the distributed control system (DCS).

Each CT will have evaporative cooling at the turbine air inlet that reduces the inlet air temperature and increases both the efficiency and power output at elevated ambient temperatures. This cooling system will only operate when the ambient temperature is 60°F or greater and the CTs are operating. This cooling system adds water vapor to the compressor inlet of the CTs, which increases the mass flow of air by evaporative cooling, but does not affect emission rate (i.e., ppmvd) of regulated pollutants. The CTs can operate with or without the evaporative coolers in service.

2.3 Proposed Source Emissions and Stack Parameters

Performance, estimated maximum hourly emissions, and exhaust information representative of each CT/HRSG option operating at base-load conditions (100-percent load) in combined cycle mode are presented in Tables 2-1 and 2-2 for natural gas and light oil firing, respectively. Table 2-1 also includes emissions and exhaust information for duct firing. The data are presented for turbine inlet temperatures of 35°F, 59°F, 75°F, and 95°F. The performance and emissions data for the operating conditions are given in Appendix A for turbine inlet temperatures of 35°F, 59°F, 75°F, and 95°F and various operating conditions (100-percent load and low-load operation applicable for each CT).

The maximum short-term emission rates [pounds per hour (lb/hr)] generally occur at baseload, 35°F turbine inlet, where the CT has the greatest output and greatest fuel consumption. Maximum potential annual emissions for the CTs/HRSGs for regulated air pollutants are based on an ambient temperature of 59°F. To produce the maximum annual emissions, it is assumed that each CT/HRSG would operate for 8,760 hours. Of the 8,760 operating hours, 8,260 hr/yr are assumed to be natural gas firing with 2,880 hours fired at 100-percent load with maximum duct firing. For the remaining 500 hr/yr, it is assumed that the CTs operate on ultra low-sulfur light oil. Since the sulfur content of ultra low-sulfur light oil (0.0015 percent) has a lower fuel sulfur content than that assumed for natural gas [2 grains per 100 standard cubic feet (gr/100 scf)], the maximum annual SO_2 and SAM emissions, at 8,760 hours of operation, are based on firing natural gas. Table 2-3 presents the potential emissions for WCEC Unit 3.

Process flow diagrams of a CT/HRSG train, operating at baseload conditions with a compressor inlet temperature of 59°F, are presented in Figure 2-2.

WCEC Unit 3 will have a mechanical draft cooling tower. PM will be emitted from the mechanical draft cooling tower in the form of drift. Cooling tower drift will be controlled through the use of mist eliminators that will be designed to limit drift to 0.0005 percent of the circulating water rate of the cooling tower. Table 2-4 presents information on the cooling tower and potential PM and PM_{10} from drift. The information presented in Table 2-4 is for a 26-cell design.

WCEC Unit 3 will be equipped with two 2,250-kilowatt (kW) emergency generators. These emergency generators will be used when electric power cannot be transmitted into the FPL transmission system and is unavailable to the site. This primarily would occur during catastrophic events such as hurricanes. Table 2-5 presents information on performance and emissions from the emergency generators. Appendix A contains manufacturer's information. Normally, these emergency generators would be operated 1 to 2 hours per month for maintenance and reliability testing.

The Project will include one natural gas-fired fuel heater for WCEC Unit 3 and a spare fuel heater for the Site. This heater will utilize a heat transfer fluid for heating the natural gas and be fired with only natural gas. The manufacturer will be Hanover Compression Company, or equivalent, with a heat input of 10 MMBtu/hr or less. These heaters will be used as necessary to heat natural gas above the dew point. Table 2-6 presents the estimated performance and emissions for one gas heater. The annual emissions shown in Table 2-6 are based on 8,760 hr/yr, although the actual usage is expected to be much lower.

The combustor for the MPS 501G CT requires steam for combustor cooling, which normally comes from the HRSG. Two auxiliary boilers have been authorized for WCEC Units 1 and 2 and will be used for WCEC Unit 3 if necessary. Once sufficient quality and quantity of steam is available from the HRSG or other WCEC units, steam from the auxiliary boiler is not required. No additional auxiliary boiler is required for WCEC Unit 3.

A summary of the maximum total potential annual emissions estimated for WCEC Unit 3 Project is given in Table 2-7. The information in this table represents a conservative estimate of potential emissions for WCEC Unit 3 Project. The potential emissions in Table 2-7 represent a turbine inlet temperature 59°F, which is lower than the actual average temperature, thereby increasing emission estimates. The potential emissions for the Project also are based on maximum operation for fuel and duct firing. Together, the potential emissions would envelope the Project's emissions including provisions for excess emissions discussed in Section 2.5.

Emission factors for hazardous air pollutants (HAPs) were evaluated based on the revised AP-42 emission factors, the EPA Combustion Turbine Emissions Database and the combustion turbine Maximum Achievable Control Technology (MACT) standards. The HAP emissions are based on emission factors from the April 2000 revision of EPA's AP-42 emission factors for large stationary CTs. Summaries of the emission factors and emissions for light oil firing and gas firing are presented in Appendix A.

The MACT standard in 40 CFR Subpart YYYY is potentially applicable to WCEC Unit 3. WCEC will be a major source of HAP emissions since emissions are projected to exceed 10 tons per year (TPY) of a single HAP and exceed 25 TPY for all HAPs. Since ultra low-sulfur light oil is proposed to be fired in each CT for up to 500 hr/yr, the proposed CTs are defined as "stationary diffusion flame oil-fired combustion turbines" under the Subpart YYYY requirements and would have the potential for an aggregate total potential of 1,000 hours of oil firing during any calendar year. Actual applicability of Subpart YYYY is based on actual oil fuel used in a calendar year. The proposed WCEC Unit 3 will be required to demonstrate compliance with the CT MACT of 91-part-per-billion-volume, dry (ppbvd) formaldehyde corrected to 15-percent oxygen if the aggregate 1,000 hr/yr is exceeded. Based on the applicability of Subpart YYYY, compliance will be determined upon initial operation and annually (40 CFR Part 63, Section 63.6120, Table 3).

An emission factor for toluene of 33 lb/10^{12} Btu, for natural gas firing, was developed from the data in the EPA Combustion Turbine Emissions Database. This factor is based on the median value for loads greater than 80 percent. Similar to formaldehyde emission factors, there are no confirmed test data of toluene emissions from G Class turbines. The recent EPA emission factor, which is based on much smaller turbines than those proposed for WCEC Unit 3, suggests toluene emissions from gas turbines of 130 lb/10^{12} Btu when firing natural gas at loads greater than 80 percent. For all loads, the average and median EPA factors are 94 and 19 lb/10^{12} Btu, respectively. Since the median emission factor is about 4 to 5 times lower than the average factor, this clearly points to the large range in toluene emissions and how the individual turbine combustion characteristics can influence the results.

The emission factors for many of the other HAPs were developed by EPA in a manner similar to toluene. For these HAPs, fewer data are available and are also considered not representative of state-of-the-art DLN combustion systems. The use of AP-42 emission factors for HAPs is considered to provide conservative estimates of emissions.

The emergency generators will be subject to 40 CFR 63 Subpart ZZZZ, the Reciprocating Internal Combustion Engine (RICE) MACT Rule, since they will be located at a major source of HAP emissions and will have a site rating of greater that 500 horsepower (hp). The emergency generators will only be subject to the notification requirements of the RICE MACT (i.e., no emissions limitations will apply) since it would qualify for one of the following rule exemptions:

> **Emergency Generator** – Any stationary RICE that operates in an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility is interrupted, or stationary RICE used to pump water in case of fire or flood, etc. Emergency stationary RICE may be operated for the purpose of maintenance checks and readiness testing provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of the emergency stationary RICE in emergency situations and for routine testing and maintenance. Emergency stationary RICE may also operate an additional 50 hours per year in non-emergency situations.
>
> **Limited Use** – Any stationary RICE that operates less than 100 hours per year.

The emergency generators are Stationary Compression Ignition Internal Combustion Engines (Stationary ICE) and will be subject to 40 CFR 60, Subpart IIII. These generators will comply with 40 CFR 60, Subpart IIII to the extent that the regulations apply to the emission unit and its operations (e.g., non-road, emergency, displacement, capacity, model year selected).

Note that the estimated emissions provide a worst-case estimate for determining PSD applicability and are not representative of normal operation. For maintenance and reliability testing, the emergency generators will normally be operated about 1 to 2 hours per month or approximately 12 to 24 hr/yr.

The National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD, is applicable to industrial, commercial, or institutional boilers or process heaters. Subpart DDDDD defines process heaters as follows in 40 CFR 63.7575:

> *"Process heater means an enclosed device using controlled flame, that is not a boiler, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to heat transfer material for use in a process material for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not directly come into contact with process materials. Process heaters do not include units for comfort heat or space heat, food preparation for on-site consumption, or autoclaves."*

The Project will include two 10-MMBtu/hr indirect process heaters for the purpose of heating the natural gas supply to the CTs. The natural gas heaters are defined as small gaseous fuel units and are not subject to the initial notification or any requirements of the Subpart DDDDD pursuant to 40 CFR 63.7506(c).

2.4 Site Layout, Structures, and Stack Sampling Facilities

A typical profile of a CT/HRSG train is presented in Figure 2-3. The dimensions of the buildings and structures are presented in Section 6.0. Stack sampling facilities will be constructed in accordance with Rule 62-297.310(6), F.A.C.

2.5 Excess Emissions

The startup and shutdown and fuel changes in combined cycle operation will require an excess emission allowance greater than 2 hours provided under the FDEP rules. During cold start-up, the operating load of the CTs is limited by the amount of steam that can be accepted by the steam turbine. This will result in excess emissions. The startup curves for the MPS 501G CT are presented in Appendix A. The same excess emission allowance is requested for WCEC Unit 3 that was authorized for Units 1 and 2 with the exception that fuel switching be authorized for 2 hours per fuel switch. The proposed condition follows:

> Excess Emissions Allowed: As specified in this condition, excess emissions resulting from startup, shutdown, oil-to-gas fuel switches and documented

malfunctions are allowed provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. For each gas turbine/HRSG system, excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in any 24-hour period except for the specific cases listed below. A "documented malfunction" means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile transmittal, or electronic mail.

a. *Steam Turbine/HRSG System Cold Startup*: For cold startup of the steam turbine system, excess emissions from any gas turbine/HRSG system shall not exceed eight hours in any 24-hour period. A cold "startup of the steam turbine system" is defined as startup of the 3-on-1 combined cycle system following a shutdown of the steam turbine lasting at least 48 hours.

{Permitting Note: During a cold startup of the steam turbine system, each gas turbine/HRSG system is sequentially brought on line at low load to gradually increase the temperature of the steam-electrical turbine and prevent thermal metal fatigue. Note that shutdowns and documented malfunctions are separately regulated in accordance with the requirements of this condition.}

b. *Shutdown Combined Cycle Operation*: For shutdown of the combined cycle operation, excess emissions from any gas turbine/HRSG system shall not exceed three hours in any 24-hour period.

c. *Gas Turbine/HRSG System Cold Startup*: For cold startup of a gas turbine/HRSG system, excess emissions shall not exceed four hours in any 24-hour period. "Cold startup of a gas turbine/HRSG system" is defined as a startup after the pressure in the high-pressure (HP) steam drum falls below 450 psig for at least a one-hour period.

d. *Fuel Switching*: For fuel switching, excess emissions shall not exceed 2 hours for each fuel switch.

Ammonia injection shall begin as soon as operation of the gas turbine/HRSG system achieves the operating parameters specified by the manufacturer. As authorized by Rule 62-210.700(5), F.A.C., the above conditions allow excess emissions only for specifically defined periods of startup, shutdown, fuel switching and documented malfunction of the gas turbines.

TABLE 2-1

STACK, OPERATING, AND EMISSION DATA FOR THE COMBUSTION TURBINES/HRSGS AND DUCT BURNERS FOR COMBINED CYCLE OPERATION-NATURAL GAS COMBUSTION

		Operating and Emission Data [a] for Ambient Temperarure							
		Combustion Turbine/ HRSG				Combustion Turbine/ HRSG/ Duct Burner			
Parameter		35 °F	59 °F	75 °F	95 °F	35 °F	59 °F	75 °F	95 °F
CT/HRSG Stack Data (ft)									
Height		149	149	149	149	149	149	149	149
Diameter		22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
100 Percent Load									
Temperature (°F)		196	195	195	195	186	185	185	184
Velocity (ft/sec)		62.5	59.6	57.6	55.2	62.0	59.1	57.2	54.7
Maximum Hourly Emissions per CT									
SO_2	lb/hr	15.1	14.3	13.7	13.0	17.7	16.9	16.3	15.6
PM/PM_{10}	lb/hr	8.0	7.2	7.0	6.6	11.5	10.8	10.6	10.2
NO_x	lb/hr	21.5	20.5	19.8	19.0	25.5	24.3	23.6	22.6
CO	lb/hr	26.9	25.6	24.7	23.7	59.1	56.3	54.5	52.2
VOC (as methane)	lb/hr	4.5	4.3	4.1	4.0	7.1	6.8	6.6	6.3
Sulfuric Acid Mist	lb/hr	2.9	2.8	2.7	2.5	3.8	3.7	3.6	3.4
75 Percent Load									
Temperature (°F)		184	185	186	187	NA	NA	NA	NA
Velocity (ft/sec)		50.1	48.4	47.3	45.8	NA	NA	NA	NA
Maximum Hourly Emissions per CT									
SO_2	lb/hr	11.5	11.0	10.6	10.2	NA	NA	NA	NA
PM/PM_{10}	lb/hr	6.0	5.9	5.8	5.7	NA	NA	NA	NA
NO_x	lb/hr	16.2	15.6	15.2	14.6	NA	NA	NA	NA
CO	lb/hr	49.4	47.4	46.2	44.5	NA	NA	NA	NA
VOC (as methane)	lb/hr	3.4	3.2	3.2	3.1	NA	NA	NA	NA
Sulfuric Acid Mist	lb/hr	2.24	2.14	2.06	1.97	NA	NA	NA	NA

[a] Refer to Appendix A for detailed information on basis of pollutant emission rates and operating data. Duct firing is assumed for 100% operating load. No duct firing is assumed for loads less than 100%.

Sources: MPS, 2007; Nooter-Ericsen, 2007; Golder, 2007 .

TABLE 2-2

STACK, OPERATING, AND EMISSION DATA FOR THE COMBUSTION TURBINES/HRSGS FOR COMBINED CYCLE OPERATION- ULTRA LOW-SULFUR LIGHT OIL COMBUSTION

		Operating and Emission Data [a] for Ambient Temperarure			
		Combustion Turbine/ HRSG			
Parameter		**35 °F**	**59 °F**	**75 °F**	**95 °F**
CT/HRSG Stack Data (ft)					
Height		149	149	149	149
Diameter		22	22	22	22
100 Percent Load					
Temperature (°F)		359	357	355	354
Velocity (ft/sec)		77.6	73.9	71.3	68.1
Maximum Hourly Emissions per CT					
SO_2	lb/hr	3.7	3.5	3.3	3.1
PM/PM_{10}	lb/hr	38.0	35.9	34.9	32.8
NO_x	lb/hr	78.5	75.2	73.0	69.4
CO	lb/hr	47.8	45.8	44.4	42.3
VOC (as methane)	lb/hr	20.5	19.6	19.0	18.1
Lead	lb/hr	0.031	0.030	0.028	0.027
Sulfuric Acid Mist	lb/hr	0.71	0.67	0.64	0.61
75 Percent Load					
Temperature (°F)		350	348	346	345
Velocity (ft/sec)		74.3	71.4	69.5	66.8
Maximum Hourly Emissions per CT					
SO_2	lb/hr	2.9	2.7	2.6	2.5
PM/PM_{10}	lb/hr	36.8	35.7	34.7	32.7
NO_x	lb/hr	57.9	56.0	53.9	51.4
CO	lb/hr	37.2	35.9	34.3	33.3
VOC (as methane)	lb/hr	15.9	15.4	14.7	14.3
Lead	lb/hr	0.025	0.023	0.023	0.022
Sulfuric Acid Mist	lb/hr	0.56	0.53	0.51	0.49

[a] Refer to Appendix A for detailed information on basis of pollutant emission rates and operating data.

Sources: MPS, 2007; Nooter-Ericsen, 2007; Golder, 2007 .

TABLE 2-3
SUMMARY OF MAXIMUM POTENTIAL ANNUAL EMISSIONS FOR THE CTS/HRSG IN COMBINED CYCLE OPERATIONS

	Maximum Hourly Emissions (lb/hr) [a] Combined Cycle (CC)			Maximum Emissions (tons/year) Operating Scenario	Operating Hours				
				CC/ NG 100 % Load	8,760	5,880	5,880	5,380	5,780
Fuel:	NG	NG	Oil	CC/ DB /NG100 % Load	0	2,880	2,880	2,880	2,480
Temp & Load:	59 °F, 100%	59 °F, 100% w/DB	59 °F, 100%	CC/ OIL 100 % Load	0	0	0	500	500
Pollutant				TOTAL	8,760	8,760	8,760	8,760	8,760
One Combustion Turbine									
SO_2	14.3	16.9	3.5		62.6	66.3	66.3	63.6	63.1
PM/PM_{10}	7.2	10.8	35.9		31.7	36.9	36.9	44.0	43.3
NO_x	20.5	24.3	75.2		89.7	95.2	95.2	108.9	108.1
CO	25.6	56.3	45.8		111.9	156.1	156.1	161.2	155.1
VOC (as methane)	4.3	6.8	19.6		18.7	22.3	22.3	26.1	25.6
Sulfuric Acid Mist	2.8	3.7	0.7		12.2	13.5	13.5	12.9	12.8
HAPs	1.18	1.40	2.82		5.2	5.5	5.5	5.9	5.8
Lead	0.00	0.00	0.030		0.0	0.0	0.0	0.007	0.007
Three Combustion Turbines									
SO_2	42.8	50.7	10		188	199	199	191	189
PM/PM_{10}	21.7	32.5	108		95.1	110.6	110.6	132	130
NO_x	61.4	73.0	226		269	286	286	327	324
CO	76.7	169	137		336	468	468	484	465
VOC (as methane)	12.8	20.3	58.8		56.2	66.9	66.9	78.4	76.9
Sulfuric Acid Mist	8.3	11.0	2.0		36.5	40.4	40.4	38.8	38.3
HAPs	3.53	4.21	8.46		15.48	16.45	16.45	17.7	17.5
Lead	0.00	0.00	0.089		0.000	0.000	0.000	0.022	0.022

[a] Based on 59 °F ambient inlet air temperature .

Sources: MPS, 2007; Nooter-Ericsen, 2007; Golder, 2007 .

TABLE 2-4
PHYSICAL, PERFORMANCE, AND EMISSIONS DATA FOR THE MECHANICAL DRAFT COOLING TOWER

Parameter	WCEC 3 x 1
Physical Data	
Number of Cells	26
Deck Dimensions, ft	
Length	702
Width	96
Height	49
Stack Dimensions	
Height, ft	63
Stack Top Effective Inner Diameter, per cell, ft	35
Effective Diameter, all cells, ft	178.5
Performance Data	
Discharge Velocity, ft/min	1,411
Circulating Water Flow Rate (CWFR), gal/min	303,810
Design hot water temperature, °F	91.9
Design cold water temperature, °F	75.8
Heat Rejected, million Btu/hr	2,400
Design Air Flow Rate per cell, acfm	1,358,000
Liquid/ Gas (Air Flow) (L/G) Ratio	1.13
Hours of operation	8,760
Temperature of Exit Air, °F	96.9
Emission Data	
Drift Rate[a] (DR), percent	0.0005
Total Dissolved Solids (TDS) Concentration [b], maximum ppm	35,000
Solution Drift [c] (SD), lb/hr	760.1
PM Drift [d], lb/hr	26.6
tons/year	116.5
PM_{10} Drift[e]	
PM_{10} Emissions, lb/hr	1.17
tons/year	5.10

[a] Drift rate is the percent of circulating water.

[b] A TDS of 35,000 results in maximum PM emissions.

[c] Includes water and based on circulating water flow rate and drift rate (CWFR x DR x 8.34 lb/gal x 60 min/hr).

[d] PM calculated based on total dissolved solids and solution drift (TDS x SD).

[e] PM_{10} based on Calculating Realistic PM_{10} Emissions from Cooling Towers, Joel Reisman and Gordon Frisbie. See Appendix A.

Sources: FPL, Golder; 2007.

TABLE 2-5
PERFORMANCE AND EMISSION DATA FOR ONE EMERGENCY GENERATOR ASSOCIATED WITH THE WEST COUNTY ENERGY CENTER UNIT 3 PROJECT

Parameter		Emergency Generator
Performance		
Number of Units		1
Rating (kW)		2,250
Rating (hp)		3,200
Fuel		Diesel
Fuel Heat content (Btu/lb) (HHV)		19,300
Fuel density (lb/gal)		7.0
Heat input (MMBtu/hr) (HHV)		21.01
Fuel usage (gallons/hr)		155.5
Maximum operation (hours)		500
Maximum fuel usage (gallons/yr)		77,750
Emissions		
SO_2 -	Basis (%S)	0.0015%
	Conversion of S to SO_2	100
	Molecular weight SO_2/ S (64/32)	2
	Emission rate (lb/hr)	0.03
	(tpy)	0.01
NO_x -	Basis (g/hp-hr)	6.9
	Emission rate (lb/hr)	48.7
	(tpy)	12.17
CO -	Basis (g/hp-hr)	8.5
	Emission rate (lb/hr)	60.0
	(tpy)	14.99
VOC -	Basis (g/hp-hr)	1.0
	Emission rate (lb/hr)	7.1
	(tpy)	1.76
PM/PM_{10} -	Basis (g/hp-hr)	0.4
	Emission rate (lb/hr)	2.8
	(tpy)	0.71

Sources: FPL, Golder; 2007.

TABLE 2-6
PERFORMANCE, STACK PARAMETERS, AND EMISSIONS FOR ONE NATURAL GAS FUEL HEATER

	Natural Gas Heater
Performance[a]	
Fuel Usage (scf/hr-gas)	9,479
Heat Input (MMBtu/hr-HHV)	10.00
Hours per Year	8,760
Maximum Fuel Usage (MMscf/yr)	83.03
Number of Units	1
Stack Parameters (typical)	
Diameter (ft)	1
Height (ft)	30
Temperature (°F)	500
Velocity (ft/sec)	53
Flow (acfm)	4,950
Emissions	
SO_2 -Basis (grains S/100 scf-gas)[b]	2
(lb/hr)	0.054
(lb/MMBtu)	0.005
(tpy) - one unit	0.237
NO_x - (lb/MMscf)[c]	100
(lb/hr)	0.95
(lb/MMBtu)	0.095
(tpy)	4.2
CO - (lb/MMscf)[c]	84
(lb/hr)	0.80
(lb/MMBtu)	0.080
(tpy)	3.49
VOC - (lb/MMscf)[c]	5.5
(lb/hr)	0.05
(lb/MMBtu)	0.005
(tpy)	0.228
PM/PM10 - (lb/MMscf)[d]	1.9
(lb/hr)	0.02
(lb/MMBtu)	0.002
(tpy)	0.079

[a] Based on 10 MMBtu/hr (HHV) indirect gas heaters from Hanover Compression Company or equivalent.

[b] Typical maximum for natural gas.

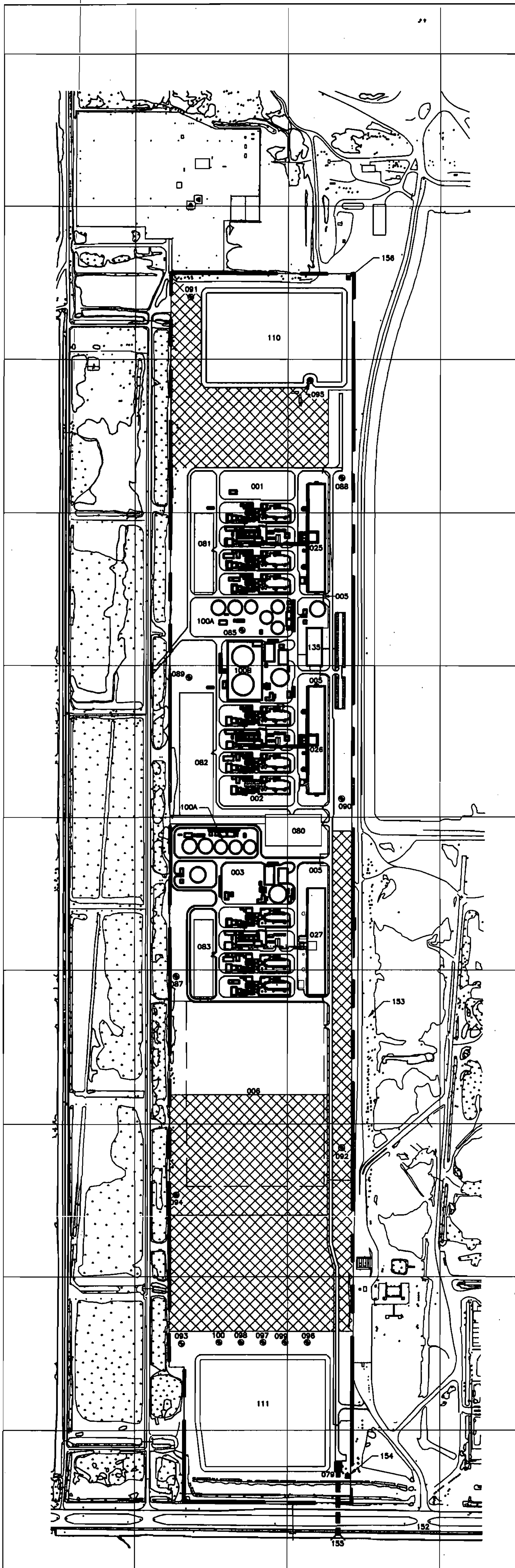
[c] EPA, AP-42 Table 1.4-1 using small boilers < 100 MMBtu.hr and Table 1.4-2.

[d] EPA, AP-42 Table 1.4-2 Filterable PM.

TABLE 2-7
SUMMARY OF MAXIMUM POTENTIAL ANNUAL EMISSIONS FOR THE WEST COUNTY ENERGY CENTER UNIT 3 PROJECT

Pollutant	Annual Emissions (tons/year): 3 CTs/HRSGs with Duct Burners	Cooling Tower	Emergency Generator (2 for Unit 3)	Natural Gas Heater (2 for WCEC)	TOTAL	PSD Significant Emission Rate (tons/year)	PSD Review Required?
SO_2	199	NA	0.0163	0.47	199	40	Yes
PM	132	116.5	1.41	0.16	250	25	Yes
PM_{10}	132	5.1	1.41	0.16	139	15	Yes
NO_x	327	NA	24.34	8.30	359	40	Yes
CO	484	NA	29.98	6.97	521	100	Yes
VOC (as methane)	78.4	NA	3.53	0.46	82	40	Yes
Sulfuric Acid Mist	40.4	NA	NA	NA	40.4	7	Yes
Lead	0.022	NA	NA	NA	0.02	0.6	No

Source: Golder, 2007.



ID	FACILITY
001	Unit 1 Power Block Area
002	Unit 2 Power Block Area
003	Unit 3 Power Block Area
005	Motorized Slide Gate
006	Switchyard
025	Unit 1 Cooling Tower
026	Unit 2 Cooling Tower
027	Unit 3 Cooling Tower
079	Raw Water Pump Structure
080	FPL Gas Yard
081	230-kv Collector Yard (Unit 1)
082	230-kv Collector Yard (Unit 2)
083	230-kv Collector Yard (Unit 3)
085	Potable Water Well PW-1
086	Potable Water Well PW-2
087	Floridan Aquifer Well FAW-1
088	Floridan Aquifer Well FAW-2
089	Floridan Aquifer Well FAW-3
090	Floridan Aquifer Well FAW-4
091	Floridan Aquifer Well FAW-5
092	Floridan Aquifer Well FAW-6
093	Floridan Aquifer Well FAW-7
094	Floridan Aquifer Well FAW-8
095	Floridan Aquifer Monitoring Well FAMW-1
096	Deep Injection Well MW-1
097	Deep Injection Well MW-2
098	Deep Injection Well MW-3
099	Dual Zone Monitoring Well DZMW-1
100	Dual Zone Monitoring Well DZMW-2
100A	Water Treatment Area
100B	Fuel Oil Area
110	North Stormwater Pond
111	South Stormwater Pond
135	Admin/Control/Warehouse Building
152	Southern Blvd.
153	Palm Beach Aggregate
154	Palm Beach County Utility Connection
155	Raw water Intake Structure

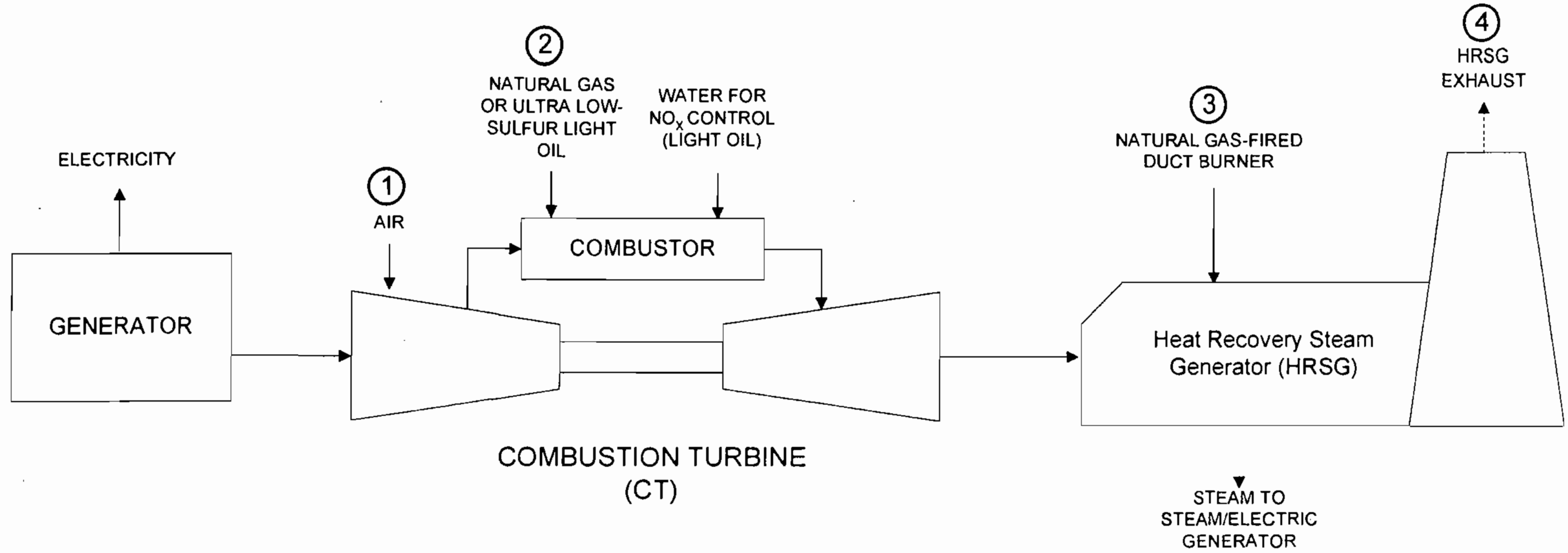
INDICATES WELLS

INDICATES CONSTRUCTION AREA

FIGURE 2-1 SITE LAYOUT
WEST COUNTY ENERGY CENTER

Sources: West County Power Partners, LLC; Golder; 2007.

FPL



	Parameters	Units	Fuel	Data G
1	Inlet Air	lb/hr	Gas	4,842,000
		lb/hr	Oil	4,850,000
2	CT Heat Input	MMBtu/hr (HHV)	Gas	2,590
		MMBtu/hr (HHV)	Oil	2,244
3	DB Heat Input	MMBtu/hr (HHV)	Gas (Only)	475
4	HRSG Velocity	ft/sec w/o DB	Gas	59.6
		ft/sec w/o DB	Oil	73.9
4	HRSG Temperature	°F	Gas	195
		°F	Oil	357
4	HRSG Stack Height	feet	Gas/Oil	149
4	HRSH Stack Diameter	feet	Gas/Oil	22

Figure 2-2. Process Flow Diagram for Each CT/HRSG Train
Baseload Operation, Turbine Inlet Temperature of 59°F
FPL West County Energy Center Unit 3, Palm Beach County, Florida

Source: MPS, 2006; Golder, 2007.

Process Flow Legend
Solid/Liquid
Gas
Steam

FPL

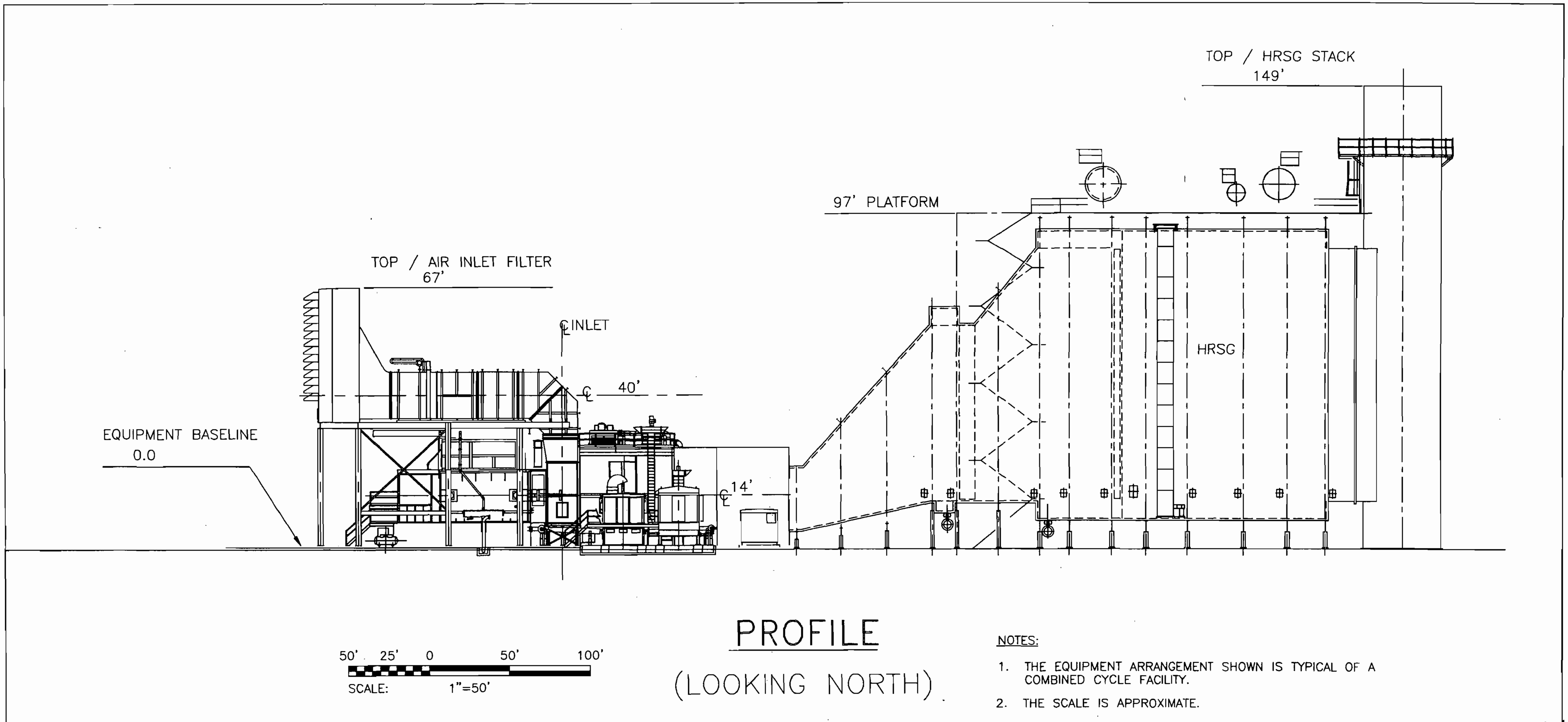


Figure 2-3. Profile of Combustion Turbine and Heat Recovery Steam Generator

Source: Black & Veatch, 2001; FPL, 2005; and Golder, 2005.

3.0 AIR QUALITY REVIEW REQUIREMENTS AND APPLICABILITY

The following discussion pertains to the federal, State, and local air regulatory requirements and their applicability to WCEC Unit 3.

3.1 National, State, and Local AAQS

The national and State of Florida AAQS are presented in Table 3-1. Primary national AAQS were promulgated to protect the public health with an adequate margin of safety, and secondary national AAQS were promulgated to protect the public welfare from any known or anticipated adverse effects associated with the presence of pollutants in the ambient air. Areas of the country in compliance with AAQS are designated as attainment areas. New sources to be located in or near these areas may be subject to more stringent air permitting requirements.

3.2 PSD Requirements

3.2.1 General Requirements

Under federal and State of Florida PSD review requirements, all major new or modified sources of air pollutants regulated under the Clean Air Act (CAA) must be reviewed, and a pre-construction permit issued.

PSD review is applicable to a "major facility" and certain "modifications" that occur at a major facility. A "major facility" is defined as any 1 of 28 named source categories that have the potential to emit 100 TPY or more, or any other stationary facility that has the potential to emit 250 TPY or more, of any pollutant regulated under CAA. "Potential to emit" means the capability, at maximum design capacity, to emit a pollutant after the application of control equipment. Net emission increases from a modification at a major facility that exceed the PSD significant emission rates are also subject to PSD review.

EPA has promulgated regulations providing that certain increases above an air quality baseline concentration level of SO_2, PM_{10}, and NO_2 concentrations would constitute significant deterioration. The EPA class designations and allowable PSD increments are presented in Table 3-1. The State of Florida has adopted the EPA class designations and allowable PSD increments for SO_2, PM_{10}, and NO_2.

PSD review is used to determine whether significant air quality deterioration will result from the new or modified facility. Federal PSD requirements are contained in 40 CFR 51.166, *Prevention of Significant Deterioration of Air Quality*. The State of Florida's PSD regulations are found in Rule 62-212.400, F.A.C. Major new facilities are required to undergo the following analysis related to PSD for each pollutant emitted in significant amounts (see Table 3-2):

1. Control technology review,
2. Source impact analysis,
3. Air quality analysis (monitoring),
4. Source information, and
5. Additional impact analyses.

In addition to these analyses, a review with respect to Good Engineering Practice (GEP) stack height regulations must be conducted. Discussions concerning each of these requirements are presented in the following sections.

3.2.2 Control Technology Review

The control technology review requirements of the federal and state PSD regulations require that all applicable federal and state emission-limiting standards be met, and that BACT be applied to control emissions from the source (Rule 62-212.400, F.A.C.). The BACT requirements are applicable to all regulated pollutants for which the increase in emissions from the facility or modification exceeds the significant emission rate (see Table 3-2).

BACT is defined in Rule 62-210.200(39), F.A.C., as:

> *(a) An emission limitation, including a visible emissions standard, based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account:*
>
> *1. Energy, environmental and economic impacts, and other costs;*
> *2. All scientific, engineering, and technical material and other information available to the Department; and*
> *3. The emission limiting standards or BACT determinations of Florida and any other state;*
>
> *determines is achievable through application of production processes and available methods, systems and techniques (including fuel cleaning or treatment or innovative fuel combustion techniques) for control of each such pollutant.*
>
> *(b) If the Department determines that technological or economic limitations on the application of measurement methodology to a particular part of an emissions unit or facility would make the imposition of an emission standard infeasible, a design, equipment, work*

practice, operational standard or combination thereof, may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reductions achievable by implementation of such design, equipment, work practice or operation.
(c) Each BACT determination shall include applicable test methods or shall provide for determining compliance with the standard(s) by means which achieve equivalent results.
(d) In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60, 61, and 63.

BACT requirements were promulgated within the framework of the PSD provisions in the 1977 amendments of the CAA [Public Law 95-95; Part C, Section 165(a)(4)]. The primary purpose of BACT is to optimize consumption of PSD air quality increments and thereby enlarge the potential for future economic growth without significantly degrading air quality (EPA, 1978; 1980). Guidelines for the evaluation of BACT can be found in *Guidelines for Determining Best Available Control Technology (BACT)* (EPA, 1978) and in the *PSD Workshop Manual* (EPA, 1980). These guidelines were issued by EPA to provide a consistent approach to BACT and to ensure that the impacts of alternative emission control systems are measured by the same set of parameters. However, BACT in one area may not be identical to BACT in another area. According to EPA (1980), "BACT analyses for the same types of emissions unit and the same pollutants in different locations or situations may determine that different control strategies should be applied to the different sites, depending on site-specific factors. Therefore, BACT analyses must be conducted on a case-by-case basis."

The BACT requirements are intended to ensure that the control systems incorporated in the design of a proposed facility reflect the latest in control technologies used in a particular industry and take into consideration existing and future air quality in the vicinity of the proposed facility. BACT must, as a minimum, demonstrate compliance with new source performance standards (NSPS) for a source (if applicable). An evaluation of the air pollution control techniques and systems, including a cost-benefit analysis of alternative control technologies capable of achieving a higher degree of emission reduction than the proposed control technology, is required. The cost-benefit analysis requires the documentation of the materials, energy, and economic penalties associated with the proposed and alternative control systems, as well as the environmental benefits derived from these systems. A decision on BACT is to be based on sound judgment, balancing environmental benefits with energy, economic, and other impacts (EPA, 1978).

Historically, a "bottom-up" approach, consistent with the BACT Guidelines and the PSD Workshop Manual, was used. With this approach, an initial control level, which is usually NSPS, is evaluated against successively more stringent controls until a BACT level is selected. However, EPA developed a concern that the bottom-up approach was not providing the level of BACT decisions originally intended. As a result, in December 1987, the EPA Assistant Administrator for Air and Radiation mandated changes in the implementation of the PSD program, including the adoption of a new "top-down" approach to BACT decision making.

The top-down BACT approach essentially starts with the most stringent (or top) technology and emission limits that have been applied elsewhere to the same or a similar source category. The applicant must next provide a basis for rejecting this technology in favor of the next most stringent technology or propose for using it. Rejection of control alternatives may be based on technical or economic infeasibility. Such decisions are made on the basis of physical differences (e.g., fuel type), locational differences (e.g., availability of water), or significant differences that may exist in the environmental, economic, or energy impacts. The differences between the proposed facility and the facility for which the control technique was applied previously, must be justified. EPA has issued a draft guidance document on the top-down approach entitled *Top-Down Best Available Control Technology Guidance Document* (EPA, 1990). FDEP utilizes the "top-down" BACT approach.

FDEP performs BACT reviews based on EPA's regulations and guidance in which the most stringent control alternatives are evaluated to identify the "best available control technology" and a related appropriate emissions limitation for each pollutant requiring a BACT determination. This procedure is referred to as the "top down" approach. EPA's BACT guidelines establish a specific five-step analytical process for conducting a BACT determination. The five steps consist of: 1) identifying the potentially applicable control technologies for the proposed process or source, 2) evaluating the technical options for feasibility taking into consideration source specific factors, 3) comparing the remaining control technologies based on effectiveness, 4) evaluating the remaining options taking into consideration energy, environmental and economic impacts, and 5) selecting BACT based on the above analyses.

3.2.3 Source Impact Analysis

A source impact analysis required pursuant to Rule 62-212.400(5), F.A.C., must be performed for a proposed major source or major modification subject to PSD review for each pollutant for which emissions exceed the significant emission rate (Table 3-2). The PSD regulations specifically provide for the use of atmospheric dispersion models in performing impact analyses, estimating baseline and future air quality levels, and determining compliance with AAQS and allowable PSD increments. Designated EPA models normally must be used in performing the impact analysis as required by Rule 62-212.400(6), F.A.C. Specific applications for other than EPA-approved models require EPA's consultation and prior approval. Guidance for the use and application of dispersion models is presented in the EPA publication *Guideline on Air Quality Models (Revised)*. The source impact analysis for criteria pollutants to address compliance with AAQS and PSD Class II increments may be limited to the modification if the impacts, as a result of the modification, are below significant impact levels, as presented in Table 3-1.

The EPA has proposed significant impact levels for Class I areas, as follows:

Pollutant	**Averaging Time**	**Proposed EPA PSD Class I Significant Impact Levels ($\mu g/m^3$)[a]**
SO_2	3-hour	1
	24-hour	0.2
	Annual	0.1
PM_{10}	24-hour	0.3
	Annual	0.2
NO_2	Annual	0.1

[a] $\mu g/m^3$ = micrograms per cubic meter.

Although these levels have not been officially promulgated as part of the federal PSD regulations and may not be binding for states in performing PSD reviews, the levels serve as a guideline in assessing a source's impact in a Class I area. FDEP has accepted the use of these significant impact levels.

Various lengths of meteorological data records can be used for impact analysis. A 5-year period can be used with corresponding evaluation of highest, second-highest short-term concentrations for comparison to AAQS or PSD increments. The term "highest, second-highest" (HSH) refers to the highest of the second-highest concentrations at all receptors (i.e., the highest concentration at each receptor is discarded). The second-highest concentration is significant because short-term AAQS specify that the standard should not be exceeded at any location more than once a year. If fewer than 5 years of meteorological data are used in the modeling analysis, the highest concentration at each receptor normally must be used for comparison to air quality standards.

The term "baseline concentration" refers to a concentration level corresponding to a specified baseline date and certain additional baseline sources. By definition, in the PSD regulations as amended August 7, 1980, baseline concentration means the ambient concentration level that existed in the baseline area at the time of the applicable baseline date. A baseline concentration is determined for each pollutant for which a baseline date is established and includes:

1. The actual emissions representative of facilities in existence on the applicable baseline date; and
2. The allowable emissions of major stationary facilities that commenced construction before January 6, 1975, for SO_2 and PM (TSP) concentrations or February 8, 1988, for NO_2 concentrations, but that were not in operation by the applicable baseline date.

The following emissions are not included in the baseline concentration and, therefore, will affect PSD increment consumption.

1. Actual emissions from any major stationary facility on which construction commenced after January 6, 1975, for SO_2 and PM (TSP) concentrations and after February 8, 1988, for NO_2 concentrations; and
2. Actual emission increases and decreases at any stationary facility occurring after the baseline date.

In reference to the baseline concentration, the term "baseline date" actually includes three different dates:

1. The major facility baseline date, which is January 6, 1975, in the cases of SO_2 and PM (TSP) and February 8, 1988, in the case of NO_2.
2. The minor facility baseline date, which is the earliest date after the trigger date on which a major stationary facility or major modification subject to PSD regulations submits a complete PSD application.

3. The trigger date, which is August 7, 1977, for SO_2 and PM (TSP) and February 8, 1988, for NO_2.

The minor source baseline date for SO_2 and PM (TSP) has been set as December 27, 1977, for the entire State of Florida [Rules 62-204.200(22) and 204.360, F.A.C.]. The minor source baseline for NO_2 has been set as March 28, 1988 in Florida [Rule 62-204.200(22) and 204.360, F.A.C.]. It should be noted that references to PM (TSP) are also applicable to PM_{10}.

3.2.4 Air Quality Monitoring Requirements

In accordance with requirements of Rule 62-212.400(7), F.A.C., any application for a PSD permit must contain an analysis of continuous ambient air quality data in the area affected by the proposed major stationary facility. For a major modification, the affected pollutants are those that the facility potentially would emit in significant amounts.

Ambient air monitoring for a period of up to 1 year generally is appropriate to satisfy the PSD monitoring requirements. Data for a minimum of 4 months are required. Existing data from the vicinity of the proposed source may be used, if the data meet certain quality assurance requirements; otherwise, additional data may need to be gathered. Guidance in designing a PSD monitoring network is provided in *Ambient Monitoring Guidelines for Prevention of Significant Deterioration* (EPA, 1987a).

The regulations include an exemption that excludes or limits the pollutants for which an air quality analysis must be conducted. This exemption states that a proposed major stationary facility is exempt from the monitoring requirements with respect to a particular pollutant, if the emissions of the pollutant from the facility would cause, in any area, air quality impacts less than the *de minimis* levels presented in Rule 62-212.400(3)(e), F.A.C. If a facility's predicted impacts are less than the *de minimis* levels, then preconstruction monitoring is not required.

3.2.5 Source Information/GEP Stack Height

Source information must be provided to adequately describe the proposed facility according to Rule 62-212.400(4), F.A.C. The general information required for this facility is presented in Section 2.0.

The 1977 CAA Amendments require that the degree of emission limitation required for control of any pollutant can not be affected by a stack height that exceeds GEP or any other dispersion technique. On July 8, 1985, EPA promulgated final stack height regulations (EPA, 1985a). Identical regulations have been adopted by FDEP (Rule 62-210.550, F.A.C.). GEP stack height is defined as the highest of:

1. 65 meters (m); or
2. A height established by applying the formula:

$$H_g = H + 1.5L$$

where: H_g = GEP stack height,

H = Height of the structure or nearby structure, and

L = Lesser dimension (height or projected width) of nearby structure(s); or

3. A height demonstrated by a fluid model or field study.

"Nearby" is defined as a distance up to 5 times the lesser of the height or width dimensions of a structure or terrain feature, but not greater than 0.8 kilometers (km). Although GEP stack height regulations require that the stack height used in modeling for determining compliance with AAQS and PSD increments not exceed the GEP stack height, the actual stack height may be greater.

The stack height regulations also allow increased GEP stack height beyond that resulting from the above formula in cases where plume impaction occurs. Plume impaction is defined as concentrations measured or predicted to occur when the plume interacts with elevated terrain. Elevated terrain is defined as terrain that exceeds the height calculated by the GEP stack height formula.

3.2.6 Additional Impact Analysis

In addition to air quality impact analyses, federal and State of Florida PSD regulations require analyses of the impairment to visibility and the impacts on soils and vegetation that would occur as a result of the proposed source or modification [Rule 62-212.400(8), F.A.C.]. Impacts as a result of general commercial, residential, industrial, and other growth associated with the source also must be addressed. These analyses are required for each pollutant emitted in significant amounts (see Table 3-2).

3.2.7 Air Quality Related Values

An Air Quality Related Value (AQRV) analysis is required to assess the potential impact on AQRVs in PSD Class I areas. The Everglades National Park (NP) is the closest Class I area to the WCEC, and is located about 102 km south of the Site.

The U.S. Department of the Interior in 1978 administratively defined AQRVs to be:

> *All those values possessed by an area except those that are not affected by changes in air quality and include all those assets of an area whose vitality, significance, or integrity is dependent in some way upon the air environment. These values include visibility and those scenic, cultural, biological, and recreational resources of an area that are affected by air quality.*
>
> *Important attributes of an area are those values or assets that make an area significant as a national monument, preserve, or primitive area. They are the assets that are to be preserved if the area is to achieve the purposes for which it was set aside (Federal Register, 1978).*

The AQRVs include visibility, freshwater and coastal wetlands, dominant plant communities, unique and rare plant communities, soils and associated periphyton, and the wildlife dependent on these communities for habitat. Rare, endemic, threatened, and endangered species of the national park and bioindicators of air pollution (e.g., lichens) must also be evaluated.

3.3 Nonattainment Rules

FDEP has nonattainment provisions (Rule 62-212.500, F.A.C.) that apply to all major new facilities located in a nonattainment area. In addition, for major facilities that are located in an attainment or unclassifiable area, the nonattainment review procedures apply if the source or modification is located within the area of influence of a nonattainment area. The WCEC is located in Palm Beach County, which is classified as an attainment area for all criteria pollutants. Therefore, nonattainment new source requirements are not applicable.

3.4 Emission Standards

3.4.1 New Source Performance Standards

The NSPS are a set of national emission standards that apply to specific categories of new sources. As stated in the 1977 CAA Amendments, these standards "shall reflect the degree of emission limitation and the percentage reduction achievable through application of the best technological system of continuous emission reduction the Administrator determines has been adequately demonstrated."

WCEC Unit 3 will be subject to one or more NSPS. EPA updated NSPS for Stationary Combustion Turbines that will commence construction after February 18, 2005. These NSPS, Subpart KKKK, replaced Subpart GG and Da for CTs in combined-cycle mode. The Subpart KKKK requirements supersede the Subpart GG requirements and apply to units with a gross capacity of greater than 1 MW. The Subpart KKKK requirements applicable to CTs greater than 30 MW apply to the CT/HRSG trains associated with WCEC Unit 3. The NO_x emissions are limited to 15 parts per million (ppm) corrected to 15-percent oxygen or 0.43 pound per megawatt hour (lb/MW-hr) for gas firing and 42 ppm corrected to 15-percent oxygen or 1.3 lb/MW-hr for light oil firing. For SO_2 emissions, the proposed Subpart KKKK requirements limit emissions to 0.9 lb/MW-hr or a potential total sulfur content equivalent to 0.06 lb/MMBtu if multiple fuels are fired.

On October 15, 2003, EPA promulgated changes to 40 CFR Part 60, Subpart Kb, that would exempt light oil tanks containing No. 2 light oil by virtue of its vapor pressure (FR Vol. 68, No. 199, pages 59328 through 59333).

In addition to emission limitations, there are requirements for performance testing and monitoring contained in the NSPS. There are also notification, reporting, and recordkeeping requirements in the general provisions of the NSPS. These are summarized below:

40 CFR 60.7 - Notification and Record Keeping

- (a)(1) Notification of the date of construction – 30 days after such date.
- (a)(3) Notification of actual date of initial start-up – within 15 days after such date.
- (a)(5) Notification of date which demonstrates continuous emissions monitoring (CEM) – not less than 30 days prior to date.
- (b) Maintain records of all start-ups, shutdowns, and malfunctions.
- (c) Excess emissions reports – semi-annually by the 30th day following 6-month period (required even if no excess emissions occur).
- (d) Maintain file of all measurements for 2 years.

40 CFR 60.8 - Performance Tests

- (a) Must be performed within 60 days after achieving maximum production rate but no later than 180 days after initial start-up.
- (d) Notification of Performance tests at least 30 days prior to them occurring.

3.4.2 National Emission Standards for Hazardous Air Pollutants

As discussed in Section 2.3, EPA has promulgated MACT standards for CTs. The MACT standard limits formaldehyde emissions to 91 ppbvd corrected to 15-percent oxygen, which is equivalent to about 220 $lb/10^{12}$ Btu when firing natural gas and about 240 $lb/10^{12}$ Btu when firing light oil (see Appendix A). The MACT standard could potentially apply to the Project, if during any calendar year oil use exceeds an aggregate of 1,000 hours for all turbines on the Site.

3.4.3 Florida Rules

The FDEP has adopted the EPA NSPS by reference in Rule 62-204.800(8), F.A.C. FDEP has authority for implementing NSPS requirements in Florida. The facility is required to meet the emissions, performance testing, monitoring, reporting, and record keeping as described in Subsection 3.4.1.

3.4.4 Florida Air Permitting Requirements

The FDEP regulations require any new source to obtain an air permit prior to construction. Major new sources must meet the appropriate PSD and nonattainment requirements as discussed previously. Required permits and approvals for air pollution sources include NSR for nonattainment areas, PSD, NSPS, National Emission Standards for Hazardous Air Pollutants (NESHAP), Permit to Construct, and Permit to Operate. The requirements for construction permits and approvals are contained in Rules 62-4.030, 62-4.050, 62-4.210, 62-210.300(1), and 62-212.400, F.A.C. Specific emission standards are set forth in Chapter 62-296, F.A.C.

3.4.5 Local Air Regulations

Palm Beach County Health Department is the air compliance authority for the County, implementing FDEP regulations. As conditions of the land development approval for the Site, the County established a sulfur limit on light oil of 0.0015 percent.

3.5 Source Applicability

3.5.1 Area Classification

The Project is located in Palm Beach County, which has been designated by EPA and FDEP as an attainment area (includes unclassifiable) for all criteria pollutants. Palm Beach County and the surrounding counties are designated as PSD Class II areas for SO_2, PM (TSP), and NO_2. The nearest Class I area is the Everglades NP located about 102 km (64 miles) to the south of the Site.

3.5.2 PSD Review

3.5.2.1 *Pollutant Applicability*

WCEC, which includes Units 1 and 2, is considered to be a major facility because the emissions of several regulated pollutants will exceed 100 TPY and the emissions units are one of the 28 listed major source categories under the PSD rules. WCEC Unit 3 is defined as a major modification under the PSD rules, and PSD review is required for any pollutant for which the emissions exceed the PSD significant emission rates. As shown in Table 3-3, potential emissions from the proposed WCEC Unit 3 will trigger PSD review for PM (TSP), PM_{10}, SO_2, NO_x, CO, VOC, and SAM. Impacts for these pollutants that are predicted to be above the significant impact levels require a modeling analysis incorporating the impacts from other sources. (Note: EPA no longer requires PSD review for HAPs from PSD review. The pollutants vinyl chloride, asbestos, and beryllium are no longer evaluated in PSD review because they are addressed through the NESHAP program.)

As part of the PSD review, a PSD Class I increment analysis is required if the proposed facility's impacts are greater than the proposed EPA Class I significant impact levels. The nearest Class I area to the Project (Everglades NP) is about 102 km from the Site, and a PSD Class I increment analysis and an evaluation of impacts to AQRVs are required.

3.5.2.2 *Emission Standards*

The applicable NSPS for the CT/HRSG duct burners is 40 CFR Part 60, Subpart KKKK. The proposed emissions for WCEC Unit 3 will be well below the specified limits (see Section 4.0).

The NESHAP Subpart YYYY may potentially apply to the Project. Information available from the EPA indicate that the WCEC will meet the proposed MACT of 91 ppbvd corrected to 15-percent oxygen for formaldehyde.

3.5.2.3 *Ambient Monitoring*

Based on the potential emissions from WCEC Unit 3 (see Table 3-4), a pre-construction ambient monitoring analysis is required for PM_{10}, SO_2, NO_2, CO, and O_3 (based on VOC and NO_x emissions). If the net increase in impact of pollutants is less than the applicable *de minimis* monitoring concentration (100 TPY of VOC or NO_x in the case of O_3), then an exemption from the preconstruction ambient monitoring requirement is available by Rule 62-212.400(3)(e), F.A.C. In addition, if an acceptable ambient monitoring method for the pollutant has not been established by EPA, monitoring is not required.

As shown in Table 3-4, the impacts of WCEC Unit 3 are predicted to be below the applicable *de minimis* monitoring concentration levels for all pollutants. Therefore, pre-construction monitoring is not required to be submitted for those pollutants for this facility. For O_3, the applicable pollutants are VOC and NO_x with *de minimis* monitoring threshold of 100 TPY for either pollutant. Although potential VOC emissions for the Project are below 100 TPY, the potential NO_x emissions are greater than 100 TPY. As a result, pre-construction monitoring data for O_3 are required to be submitted for the project.

3.5.2.4 *GEP Stack Height Impact Analysis*

The GEP stack height regulations allow any stack to be at least 65 m (213 ft) high. The stacks for WCEC Unit 3 will be 149 ft. These stack heights do not exceed the GEP stack height. However, as discussed in Section 6.0, Air Quality Modeling Approach, since the stack height is less than GEP, building downwash effects must be considered in the modeling analysis. As a result, the potential for downwash of the CT emissions caused by nearby structures are included in the modeling analysis.

3.5.3 Other Clean Air Act Requirements

The 1990 CAA Amendments established a program to reduce potential precursors of acidic deposition. The Acid Rain Program was delineated in Title IV of the CAA Amendments and required EPA to develop the program. EPA's final regulations were promulgated on January 11, 1993, and included permit provisions (40 CFR Part 72), allowance system (Part 73), continuous emission monitoring (Part 75), excess emission procedures (Part 77), and appeal procedures (Part 78).

EPA's Acid Rain Program applies to all existing and new utility units except those serving a generator less than 25 MW, existing simple cycle CTs, and certain non-utility facilities; units which fall under the program are referred to as affected units. The EPA regulations are applicable to the WCEC for the purposes of obtaining a permit and allowances, as well as emission monitoring. New units are required to obtain permits under the program by submitting a complete application 24 months before the date on which the unit commences operation (e.g., first fire).

The permit would require the units to hold SO_2 emission allowances. Emission limitations established in the Acid Rain Program are presumed to be less stringent than BACT for new units. An allowance is a market-based financial instrument that is equivalent to 1 ton of SO_2 emissions. Allowances can be sold, purchased, or traded.

Continuous emission monitoring (CEM) for SO_2 and NO_x is required for gas-fired and oil-fired affected units. SO_2 emissions can be determined using procedures established in Appendix D, 40 CFR Part 75. CO_2 emissions must also be determined either through a CEM (e.g., as a diluent for NO_x monitoring) or calculation. Alternate procedures, test methods, and quality assurance/quality control (QA/QC) procedures for CEM are specified (Part 75, Appendices A through I). The acid rain CEM requirements including QA/QC procedures are, in general, more stringent than those specified in the NSPS for Subpart GG. New units are required to meet the requirements by the later of January 1, 1995, or 90 days after the unit commences commercial operation.

TABLE 3-1
NATIONAL AND STATE AAQS, ALLOWABLE PSD INCREMENTS, AND SIGNIFICANT IMPACT LEVELS

Pollutant	Averaging Time	AAQS ($\mu g/m^3$)[a] Primary Standard	Secondary Standard	Florida	PSD Increments ($\mu g/m^3$)[a] Class I	Class II	PSD Class II Significant Impact Levels ($\mu g/m^3$)[b]
Particulate Matter[c] (PM_{10})	Annual Arithmetic Mean	50	50	50	4	17	1
	24-Hour Maximum	150	150	150	8	30	5
Sulfur Dioxide	Annual Arithmetic Mean	80	NA	60	2	20	1
	24-Hour Maximum	365	NA	260	5	91	5
	3-Hour Maximum	NA	1,300	1,300	25	512	25
Carbon Monoxide	8-Hour Maximum	10,000	10,000	10,000	NA	NA	500
	1-Hour Maximum	40,000	40,000	40,000	NA	NA	2,000
Nitrogen Dioxide	Annual Arithmetic Mean	100	100	100	2.5	25	1
Ozone[c]	1-Hour Maximum	235	235	235	NA	NA	NA
Lead	Calendar Quarter Arithmetic Mean	1.5	1.5	1.5	NA	NA	NA

Note: Particulate matter (PM_{10}) = particulate matter with aerodynamic diameter less than or equal to 10 micrometers.
NA = Not applicable, i.e., no standard exists.

[a] Short-term maximum concentrations are not to be exceeded more than once per year except for the PM_{10} and ozone AAQS. The 24-hour PM_{10} AAQS is attained when the expected number of days per year with a 24-hour concentration above 150 μ/m^3 is equal to or less than 1. For modeling purposes, compliance is based on the sixth highest 24-hour concentration over a 5-year period. For ozone, the daily maximum 1-hour concentration cannot be exceeded an average of more than one per year.

[b] Maximum concentrations are not to be exceeded.

[c] On July 18, 1997, EPA promulgated revised AAQS for particulate matter and ozone. For particulate matter, $PM_{2.5}$ standards were introduced with a 24-hour standard of 65 g/m^3 (3-year average of 98th percentile) and an annual standard of 15 g/m^3 (3-year average at community monitors).
The ozone standard was modified to be 0.08 ppm; achieved when 3-year average of 99th percentile is 0.08 ppm 157 μ/m^3 or less. FDEP has not yet adopted these standards.

Sources: Federal Register, Vol. 43, No. 118, June 19, 1978.
40 CFR 50; 40 CFR 52.21.
Chapter 62-204, F.A.C.

TABLE 3-2
PSD SIGNIFICANT EMISSION RATES AND *DE MINIMIS* MONITORING CONCENTRATIONS

Pollutant	Regulated Under	Significant Emission Rate (TPY)	*De Minimis* Monitoring Concentration[a] ($\mu g/m^3$)
Sulfur Dioxide	NAAQS, NSPS	40	13, 24-hour
Particulate Matter [PM(TSP)]	NSPS	25	10, 24-hour
Particulate Matter (PM_{10})	NAAQS	15	10, 24-hour
Nitrogen Dioxide	NAAQS, NSPS	40	14, annual
Carbon Monoxide	NAAQS, NSPS	100	575, 8-hour
Volatile Organic Compounds (Ozone)	NAAQS, NSPS	40	100 TPY[b]
Lead	NAAQS	0.6	0.1, 3-month
Sulfuric Acid Mist	NSPS	7	NM
Total Fluorides	NSPS	3	0.25, 24-hour
Total Reduced Sulfur	NSPS	10	10, 1-hour
Reduced Sulfur Compounds	NSPS	10	10, 1-hour
Hydrogen Sulfide	NSPS	10	0.2, 1-hour
Mercury	NESHAP	0.1	0.25, 24-hour

Note: Ambient monitoring requirements for any pollutant may be exempted if the impact of the increase in emissions is below *de minimis* monitoring concentrations.

NAAQS = National Ambient Air Quality Standards.
NM = No ambient measurement method established; therefore, no *de minimis* concentration has been established.
NSPS = New Source Performance Standards.
NESHAP = National Emission Standards for Hazardous Air Pollutants.
$\mu g/m^3$ = micrograms per cubic meter.

[a] Short-term concentrations are not to be exceeded.
[b] No *de minimis* concentration; an increase in VOC or NO_x emissions of 100 TPY or more will require monitoring analysis for ozone.

Sources: 40 CFR 52.21; Rule 62-212.400.

TABLE 3-3
MAXIMUM EMISSIONS DUE TO THE WCEC COMPARED TO THE PSD SIGNIFICANT EMISSION RATES

	Pollutant Emissions (TPY)		
Pollutant	Potential Emissions from Project[a]	Significant Emission Rate	PSD Review
Sulfur Dioxide	199	40	Yes
Particulate Matter [PM(TSP)]	250	25	Yes
Particulate Matter (PM_{10})	139	15	Yes
Nitrogen Dioxide	359	40	Yes
Carbon Monoxide	521	100	Yes
Volatile Organic Compounds	82	40	Yes
Lead	0.02	0.6	No
Sulfuric Acid Mist	40	7	Yes
Total Fluorides	NEG	3	No
Total Reduced Sulfur	NEG	10	No
Reduced Sulfur Compounds	NEG	10	No
Hydrogen Sulfide	NEG	10	No
Mercury	0.002	0.1	No

Note: NEG = Negligible.

[a] A. Based on emissions from operating at base load at 59°F for all pollutants except SO_2:
- 100-percent load, natural gas – 4,880 hours
- 100-percent load with duct burners, natural gas – 2,880 hours
- 100-percent load, oil firing – 500 hours

B. SO_2 emissions based on operations at baseload at 59°F:
- 100-percent load, natural gas – 5,880 hours
- 100-percent load with duct burners, natural gas – 2,880 hours

Includes cooling tower, two emergency generators, and two gas heaters (see Table 2-7).

TABLE 3-4
PREDICTED NET INCREASE IN IMPACTS DUE TO THE PROPOSED WCEC UNIT 3 PROJECT COMPARED TO PSD *DE MINIMIS* MONITORING CONCENTRATIONS

Pollutant	Concentration ($\mu g/m^3$) Predicted Increase in Impacts[a] WCEC Unit 3	*De Minimis* Monitoring Concentration
Sulfur Dioxide	6.20	13, 24-hour
Particulate Matter (PM_{10})	7.0	10, 24-hour
Nitrogen Dioxide[b]	0.94	14, annual
Carbon Monoxide	29.5	575, 8-hour
Ozone	359 TPY (NO_x)	100 TPY (NO_x or VOC)

[a] See Section 6.0 for air dispersion modeling results.

[b] Based on combined cycle with natural gas firing for 8,260 hours and light oil firing for 500 hours.

4.0 CONTROL TECHNOLOGY REVIEW

4.1 Applicability

The PSD regulations require new major stationary sources to undergo a control technology review for each pollutant that may potentially be emitted above significant amounts. The control technology review requirements of the PSD regulations are applicable to WCEC Unit 3 for NO_x, SO_2, CO, PM/PM_{10}, and SAM (see Section 3.0).

This section presents the applicable NSPS and the proposed BACT for these pollutants. The approach to the BACT analysis is based on the regulatory definitions of BACT, as well as consideration of EPA's current policy guidelines requiring a top-down approach. A BACT determination requires an analysis of the economic, environmental, and energy impacts of the proposed and alternative control technologies [Rules 62-210.200(39) and 62-212.400(4)(c), F.A.C.]. The analysis must, by definition, be specific to WCEC Unit 3 (i.e., case by case).

4.2 New Source Performance Standards

EPA updated NSPS for Stationary Combustion Turbines that will commence construction after February 18, 2005. These NSPS, Subpart KKKK, replaced Subpart GG and Da for combustion turbines in combined cycle mode. The Subpart KKKK requirements supersede the Subpart GG requirements and apply to units with a gross capacity of greater than 1 MW. The Subpart KKKK requirements applicable to CTs greater than 30 MW apply to CT/HRSG trains associated with WCEC Unit 3. The NO_x emissions are limited to 15 ppm corrected to 15 percent oxygen or 0.43 lb/MW-hr for gas-firing and 42 ppm corrected to 15 percent oxygen or 1.3 lb/MW-hr for light oil firing. For SO_2 emissions, the proposed Subpart KKKK requirements limit emissions to 0.9 lb/MW-hr or a potential total sulfur content equivalent to 0.06 lb/MMBtu if multiple fuels are fired.

The combined CT and duct burner emissions rate proposed for WCEC Unit 3 when firing natural gas with SCR, 2.0 ppmvd corrected to 15-percent oxygen, is equivalent to about 0.06 lb/MW-hr or over 7 times lower than the Subpart KKKK NSPS. When firing light oil, the proposed NO_x emission rate of 8 ppmvd corrected to 15-percent oxygen is equivalent to about 0.2 lb/MW-hr or over 5 times lower than the proposed Subpart KKKK NSPS.

4.3 Best Available Control Technology

4.3.1 Overview of Proposed BACT

BACT determinations for heavy-duty industrial gas turbines have been made in numerous recent permitting decisions. These decisions established emission rates that were achieved through the use of advanced DLN combustors and SCR for limiting emissions of NO_x, good combustion practices for minimizing CO and VOC emissions, and the use of clean fuels (natural gas) for control of other emissions, including PM_{10} and SO_2. The BACT proposed for WCEC Unit 3 is consistent with these permit actions. Indeed, for natural gas-fired combined cycle units, DLN and SCR are the control technologies that produce the maximum degree of emission reduction. These technologies represent the "top" control technologies. The results of the BACT analysis have concluded that the following emission limits constitute BACT for WCEC Unit 3.

- WCEC Unit 3 will use state-of-the-art DLN combustion technology and SCR to achieve gas turbine exhaust NO_x levels of no greater than 2.0 ppmvd corrected to 15-percent oxygen when firing natural gas and 8.0 ppmvd corrected to 15-percent oxygen when firing ultra low-sulfur light oil.
- CO emissions when firing natural gas will be limited through good combustion practices to 4.1 ppmvd corrected to 15-percent oxygen at base load to 60-percent load, 7.6 ppmvd corrected to 15-percent oxygen with duct firing. When firing ultra low-sulfur light oil, CO will be limited to 8.0 ppmvd corrected to 15-percent oxygen.
- VOC emissions when firing natural gas will be limited through good combustion practices to 1.2 ppmvd corrected to 15-percent oxygen at baseload, 1.6 ppmvd corrected to 15-percent oxygen with duct firing. When firing ultra low-sulfur light oil, CO will be limited to 6 ppmvd corrected to 15-percent oxygen.
- Emission rates of PM_{10} and SO_2 will be limited using natural gas and ultra low-sulfur light oil.

A summary of the emissions limits and compliance methods proposed as BACT is presented in Table 4-1. Excess emissions proposed for WCEC Unit 3 are addressed in Section 2.5.

4.3.2 Nitrogen Oxides

4.3.2.1 *Technology Description*

The BACT analysis was performed based on those available and feasible control technologies that can provide the maximum degree of emission reduction for NO_x emissions. An evaluation of the available and feasible control technologies determined that DLN combustion along with SCR could provide the maximum degree of emission reduction. SCONO$_x$™ is commercially available but has not been demonstrated on large CTs. Other available technologies such as NO$_x$Out, Thermal DeNO$_x$, NSCR, and XONON™ Combustion System were evaluated and determined to be technically infeasible or not commercially demonstrated for WCEC Unit 3. Appendix B presents a discussion of these NO$_x$ control technologies and their feasibility for WCEC Unit 3.

DLN combustor technology has been offered and installed by manufacturers to reduce NO$_x$ emissions by inhibiting thermal NO$_x$ formation through premixing fuel and air prior to combustion and providing staged combustion to reduce flame temperatures. NO$_x$ emission rate of 15 ppmvd (corrected to 15-percent oxygen) have been offered by manufacturers of "G" Class turbines. This technology prevents pollution since NO$_x$ emissions are inhibited from forming. When firing ultra low-sulfur light oil, NO$_x$ is limited using water injection to 42 ppmvd (corrected to 15-percent oxygen).

SCR is a post-combustion process where NO$_x$ in the gas stream is reacted with ammonia in the presence of a catalyst to form nitrogen and water. It is available from vendors for combined cycle applications. The reaction occurs typically between 600 and 750°F, which occurs in combined cycle units in the HRSG. SCR has been installed and operated on combined cycle facilities using catalysts with temperature ranges from 600 to 750°F, generally achieving 9 ppmvd (corrected to 15-percent oxygen) or less while burning natural gas.

Ammonium salts (ammonium sulfate and ammonium bisulfate) are formed by the reaction of sulfur oxides in the gas stream and ammonia. These salts are highly acidic and special precautions in materials and ammonia injection rates must be implemented to minimize their formation.

Ammonia injected in the SCR system, which does not react with NO$_x$, is emitted directly and referred to as ammonia slip. In general, SCR manufacturers guarantee an ammonia slip to be no more than 5 ppmvd corrected to 15-percent oxygen. SCR is technically feasible for WCEC Unit 3.

Although SCONO$_x$™ is potentially available, it has not been demonstrated on large CTs. The SCONO$_x$™ system has only been operated on a 32-MW facility in California since 1996 and a 5-MW unit in Massachusetts since 1999. The scale-up of this complicated technology should not be underestimated. The SCONO$_x$™ technology installed on an "F" Class turbine would involve about a dozen or more different chambers of catalyst for absorption and regeneration. Every 15 to 30 minutes, dampers would be operated to isolate a particular catalyst chamber for regeneration. Each regeneration cycle must isolate the chamber so that O_2 is not introduced and regeneration gas (hydrogen) is introduced. Seal leaks could be significant as applied to the large-volume flows associated with a "F" Class turbine. Although the amount of sulfur in natural gas is very low, the SCONO$_x$™ catalyst is poisoned by sulfur compounds, requiring the installation of the SCOSO$_x$™ to further remove sulfur compounds as part of the overall system. The ability of SCOSO$_x$™ to further remove compounds that will poison the catalyst as part of the overall SCONO$_x$™ system has not been demonstrated when firing light oil. Recent contacts (2005) with vendors of SCONO$_x$™ technology have indicated that SCONO$_x$ has not been applied on large (80 MW or larger) CTs.

The permitting trend for advanced CTs in combined cycle configuration is the use of DLN combustors with SCR. In EPA Region IV, the range of NO_x emission rates established as BACT has been 3.5 to 2.0 ppmvd corrected to 15-percent oxygen when firing natural gas. Several projects in Florida have established case-by-case BACT of 2.0 ppmvd corrected to 15-percent oxygen when firing natural gas using DLN and SCR.

The proposed CTs will be fired with natural gas and light oil. The BACT evaluation was based on DLN combustors in combination with SCR and SCONO$_x$™. The BACT evaluation considered a NO_x concentration of 2.0 ppmvd at 15-percent oxygen when firing natural gas and 8 ppmvd at 15-percent oxygen when firing ultra low-sulfur light oil.

The following sections present a summary of the economic, environmental, and energy impacts of the available, technically feasible, and demonstrated control technology and emission rate alternatives for the combined cycle units. Appendix B contains the detailed information on the costs and environmental and energy impacts.

4.3.2.2 *Impacts Analysis*

Economic

The total estimated capital, annualized, and incremental costs of SCR are based on budgetary cost estimates provided by Foster Wheeler and Engelhard. The total estimated capital, annualized, and incremental costs are summarized in Table 4-2. Appendix B contains the detailed cost estimates for the capital and annualized costs.

The capital and annualized costs for $SCONO_x$™ are based on a budgetary cost estimate provided by ABB Alstom Environmental Systems. The budgetary estimate of capital cost for $SCONO_x$™ on each CT/HRSG scenario is summarized in Table 4-2. As shown, the capital costs for SCR are as much as 10 times less costly than $SCONO_x$™. The cost effectiveness on a dollar per ton removed basis for $SCONO_x$™ is several hundred percent higher than SCR with uncertainty in its demonstrated feasibility. It should be noted that the annualized costs for $SCONO_x$™ did not include provisions for required mechanical maintenance activities.

Environmental

The maximum predicted NO_x impact of WCEC Unit 3 is considerably below the NO_2 PSD Class II increment of 25 micrograms per cubic meter ($\mu g/m^3$) (annual average) and the AAQS of 100 $\mu g/m^3$ (annual average). The maximum annual impact for WCEC Unit 3 at 2 ppmvd at 15-percent oxygen is 0.90 $\mu g/m^3$.

The addition of SCR will reduce NO_x emissions by at least 672 TPY per CT/HRSG train or an average reduction of about 86 percent beyond that achieved through the use of DLN combustors.

The use of DLN combustor technology is "pollution prevention". The use of SCR has associated primary and secondary environmental impacts. Emissions of ammonia and ammonium salts (such as ammonium sulfate and bisulfate) will occur. Ammonia emissions with the use of SCR are a result of unreacted ammonia that may be emitted. Vendors typically provide ammonia slip guarantees of 9 ppmvd corrected to 15-percent oxygen. However, this level of ammonia slip occurs only as the catalyst ages. Initial ammonia slip levels are less than 5 ppmvd. Potential emissions of ammonium sulfate and bisulfate will increase emissions of PM_{10} by about 13.7 TPY.

The electrical energy required to run the SCR system and the backpressure from the turbine will reduce the available power from WCEC Unit 3. The backpressure is a result of the catalyst modules located in the exhaust gas stream in the HRSG. The backpressure to reduce NO_x to 2.0 ppmvd (corrected to 15-percent oxygen) is about 2.5 inches of water gauge. This backpressure reduces the power generated by the CT. This lost power, which would otherwise be available to the electrical system, will have to be replaced by other less-efficient units. The replacement power will cause air pollutant emissions that would not have occurred if SCR were not installed. The net reduction in emissions with SCR (i.e., reduction in NO_x minus ammonia and secondary emissions), when all criteria pollutants are considered, will be about 495 TPY.

SCR will require the construction and maintenance of storage vessels for 19-percent aqueous ammonia.

While ammonia is not used or emitted from a $SCONO_x$™ system, there are substantial natural gas, steam, and backpressure ramifications for the $SCONO_x$™ system that would directly result in environmental impacts. $SCONO_x$™ requires about 22,300 lb/hr of steam and 100 lb/hr of natural gas. In addition, the backpressure of the $SCONO_x$™ system is 200 percent over that of the SCR. This increased energy use would generate additional criteria pollutants of at least 52 TPY per unit.

Energy

Energy penalties occur with SCR. With SCR, the output of the CT will be reduced to a greater extent than that of advanced low-NO_x combustors due to the backpressure on the CT. The penalty due to backpressure from SCR per CT for each CT/HRSG scenario is about 7,600,000 kW-hr.

The energy required by the SCR equipment would be about 700,800 kW-hr per year per CT. Taken together, the total lost generation and energy requirements of SCR per year could supply the electrical needs of about 700 residential customers. To replace this lost energy, about 74 million cubic feet of natural gas would be required.

$SCONO_x$™, in contrast to SCR, is very energy intensive. The $SCONO_x$™ system has about 2 times more backpressure on the turbine, requiring steam and natural gas for the regeneration process. The natural gas needed to generate the steam for the $SCONO_x$™ system is equivalent to about 33 MMBtu per hour per unit or 289,000 MMBtu per year per unit. The overall energy equivalence usage is about 47 million kW-hr per year, enough energy to serve about 4,000 residential customers.

The energy equivalence, in terms of natural gas usage, is about 420 million cubic feet.

When all the energy requirements for $SCONO_x$™ are considered, it is at least 2.12 percent of the CT heat input. In contrast, SCR results in a maximum additional energy requirement equivalent to 0.37 percent of the CT heat input.

4.3.2.3 *Proposed BACT and Rationale*

The proposed BACT for NO_x emissions from WCEC Unit 3 is based on advanced DLN combustion technology and SCR. The proposed BACT emissions levels using this technology are summarized in Table 4-1. This combination of the technology can achieve the maximum amount of emission reduction that is available, technically feasible, and demonstrated for WCEC Unit 3. SCR cannot be rejected based on the economic, environmental, and energy impacts given the recent BACT decisions on other similar projects.

The use of SCR on combined cycle projects has been a requirement in Florida and Region IV. Its use can limit NO_x emissions, while retaining much of the benefit of the advanced CT technology in combined cycle configuration.

From a technology standpoint, SCR has been demonstrated as feasible on over 100 combined cycle projects. In contrast, $SCONO_x$™ has only been operating over a few years on small turbines that are over 10 times smaller than the "G" Class turbines being proposed for WCEC Unit 3. As noted from the information in Appendix B, the $SCONO_x$™ system requires a considerable amount of mechanical equipment that must be operated in a high-volume flow field. SCR has no moving parts to complicate operation. There is considerable uncertainty regarding the maintenance and replacement requirements over time of the mechanical components of the $SCONO_x$™ system on a large turbine.

$SCONO_x$™ is rejected as BACT based on significant energy, environmental and economic impacts. The costs are significantly different between SCR and $SCONO_x$™, yet both technologies can achieve the same level of NO_x reduction. Moreover, $SCONO_x$™ has never been demonstrated on CTs as large as "G" Class proposed for WCEC Unit 3. From an environmental perspective, the only advantage of $SCONO_x$™ is the lack of ammonia slip and control of CO emissions. Ammonia is an unregulated air pollutant and ammonia slip can be minimized through design and operation of the SCR system. $SCONO_x$™ requires steam and natural gas that SCR does not require. These have direct environmental consequences in the form of additional air pollutant emissions. Thus, the energy and other environmental disadvantages of $SCONO_x$™ outweigh any advantages in the reduction of ammonia and CO emissions. In addition, the use of light fuel oil further limits the ability of $SCONO_x$™ to be used for WCEC Unit 3. Taking together the energy, economic and environmental impacts, and other costs, $SCONO_x$™ is rejected as BACT.

4.3.3 Carbon Monoxide

4.3.3.1 *Technology Description*

Emissions of CO are dependent on the combustor design, which is a result of the manufacturer's operating specifications, including the air-to-fuel ratio, staging of combustion, and the amount of water injected during oil firing. Each of the CTs proposed for WCEC Unit 3 is designed to optimize combustion efficiency and minimize NO_x emissions to the lowest achievable using DLN combustion technology while maintaining low CO emission levels.

For WCEC Unit 3, the following alternatives were evaluated as BACT:

1. Combustion controls; and
2. Oxidation catalyst at 2 ppmvd emission rate.

There are two alternatives for installing an oxidation catalyst. The first would be to install a catalyst prior to the HRSG to reduce CO emissions from the turbine. This would result in the CO emissions from the duct burners being uncontrolled. The second alternative is to install an oxidation catalyst or $SCONO_x$™ within the HRSG. This would control all the CO emissions, including CO from the duct burners. The capital cost for an oxidation catalyst and its technical feasibility is not different when considering simple or combined cycle operation.

4.3.3.2 *Impact Analysis*

Economic

The estimated capital cost, annualized cost, and total cost effectiveness for an oxidation catalyst installed on each CT/HRSG train is $2 million, $890,000 per year and about $8,700 per ton of CO removed, respectively (Table 4-3). Appendix B contains the basis for the cost estimate. No costs are associated with combustion techniques, since they are inherent in the design.

$SCONO_x$™ also reduces CO emissions. The incremental cost effectiveness for CO removal for this system is over $63,000 per ton. This is based on the differential between the annualized cost of $SCONO_x$™ ($7.7 million) and SCR ($2.4 million) and the tons of CO potentially removed in the $SCONO_x$™ system.

Environmental

The air quality impacts of CO emissions from WCEC Unit 3 with combustion design control techniques are below the significant impact levels for CO. Therefore, no significant environmental benefit would be realized by the installation of a CO catalyst. The maximum CO impacts are less than 0.1 percent of the applicable AAQS. There would also be no secondary benefits to reducing CO by catalyst, such as reductions in O_3 precursors and acidic deposition. In contrast, the installation of an oxidation catalyst would create additional backpressure on the turbine resulting in lost electric generation that would otherwise be available and thus have to be replaced by older, less-efficient technology. The end result would be the emission of an additional 16.3 TPY of criteria pollutants.

Energy

An energy penalty would result from the pressure drop across the catalyst bed. A pressure drop of about 1.5 to 2 inches of water gauge would be expected. A catalyst backpressure of 2 inches would result in an energy penalty of about 4.5 million kilowatt hours per year (kW-h/yr) (Table 4-3). The energy penalties are sufficient to supply about 370 residential customers (see Appendix B for additional information). To replace this lost energy, about 40 million cubic feet of natural gas would be required.

In contrast, the total differential energy requirements of $SCONO_x$™, after accounting for the energy requirements of NO_x removal with SCR, is about 39 million kW-hr. At least 347 million cubic feet per year (ft^3/yr) of natural gas would be required to account for this differential.

4.3.3.3 *Proposed BACT and Rationale*

Combustion design is proposed as BACT, as there are adverse technical and economic consequences of using catalytic oxidation on CTs. The proposed BACT emission rates for CO are summarized in Table 4-1. Catalytic oxidation is considered unreasonable for the following reasons:

1. Catalytic oxidation will not produce measurable reduction in the air quality impacts;
2. The economic impacts are significant; and
3. Recent projects in Florida and Region IV have been authorized with BACT emission limits of similar magnitude.

SCONO$_x$™ is rejected as BACT based on the high differential costs of the technology. Also, as described in the BACT evaluation for NO$_x$, the use of SCONO$_x$™ on a "G" Class turbine has associated technical uncertainty, as well as significant energy and environmental impacts. Moreover, this technology has never been installed on large-frame CTs.

Combustion design is proposed as BACT. The technical and economic consequences of using catalytic oxidation on CTs are considered unreasonable, since it will not produce a measurable reduction in the air quality impacts or other environmental benefits. Indeed, recent BACT decisions for similar advanced CTs have set limits in the 4.1- to 8-ppmvd range when firing natural gas and light oil. The cost of an oxidation catalyst would be significant and not be cost effective given the maximum proposed emission limits.

4.3.4 Particulate Matter, Sulfur Dioxide, and Sulfuric Acid Mist

The PM/PM$_{10}$ emissions from the CTs are a result of incomplete combustion and trace elements in the fuel. The design of the CTs ensures that particulate emissions will be minimized by combustion controls and the use of clean fuels. A review of EPA's BACT/LAER Clearinghouse Documents reveals no post-combustion particulate control technologies required or used on gas-fired or distillate oil-fired CTs.

The maximum particulate emissions from the CTs will be lower in concentration than that normally specified for fabric filter designs. The grain loading associated with the maximum particulate emissions (less than 10 lb/hr when firing natural gas) is less than 0.01 gr/scf, which is a typical design specification for a baghouse. This demonstrates that no further particulate controls are necessary or appropriate for the proposed WCEC Unit 3.

There are no technically feasible methods for controlling the emissions of SO$_2$ and sulfuric acid mist from CTs, other than the inherent quality of the fuel. The use of flue gas desulfurization (FGD) systems is not available, technically feasible, demonstrated, or cost-effective on CTs using natural gas.

The use of natural gas, a clean fuel, represents BACT and will limit emissions of PM, PM$_{10}$, and SO$_2$.

4.3.5 Volatile Organic Compounds

VOCs will be emitted by the CTs as a result of incomplete combustion. The proposed BACT emission rates for VOC emissions are based on the use of combustion technology and the use of clean fuels. A summary of the VOC emission rates proposed as BACT is presented in Table 4-1 for each proposed scenario. The proposed VOC emission levels are similar to the BACT emission levels established for other similar sources. Combustion controls and the use of clean fuels have been overwhelmingly approved as BACT for VOC emissions from CTs. The environmental effect of further reducing VOC emissions would not be significant.

A review of the BACT/LAER Information System (BLIS) did not indicate any oxidation catalysts on natural gas-fired combustion turbines to limit emissions of VOCs for BACT. A vendor of oxidation catalysts was contacted to determine the removal efficiency of VOCs in an oxidation catalyst typically used (i.e., primarily used for CO in nonattainment areas as LAER). The vendor stated that the typical VOC removal efficiency in a turbine application is from 30 to 40 percent. The cost-effectiveness calculation is presented below:

CT/HRSG Scenarios	VOC (TPY)	Annualized CO Catalyst Cost ($/year)	VOC Removal (%)	Cost Effectiveness ($/ton VOC)
MPS 501G	26	887,650	40	87,164

At 40-percent VOC removal, the cost effectiveness of an oxidation catalyst is over $80,000 per ton of VOC removed. Assuming that a 90-percent reduction was available at the same cost, the cost effectiveness is still over $38,000 per ton of VOC removed.

4.3.6 Cooling Tower

For the cooling tower, the installation of drift eliminators is the only feasible technology for controlling PM emissions. Drift eliminators use inertial separation caused by airflow direction changes to remove water droplets from the air stream exhausting from the cooling tower. These water droplets generally contain the same concentration of dissolved solids and chemical impurities as the water circulating through the tower and can be converted to airborne emissions.

Drift eliminator configurations include cellular (or honeycomb), wave-form, and herringbone (blade-type) designs. Drift eliminators may include various materials such as wood installed or formed into closely spaced slats, sheets, honeycomb assemblies, or tiles; ceramics, fiberglass, metal, and plastic.

Particulate emissions from each combined cycle unit's cooling tower will be controlled utilizing high-efficiency drift eliminators designed for a drift loss rate of 0.0005 percent of the cooling tower recirculating water flow.

4.3.7 Emergency Generators

The emergency generators proposed for WCEC Unit 3 will utilize clean fuel (i.e., ultra low-sulfur light oil) and good combustion techniques to minimize emissions. Each emergency generator proposed for WCEC Unit 3 will meet the applicable requirements of the Subpart IIII NSPS.

4.3.8 Gas Heaters

The proposed BACT for the gas heaters is the use of natural gas to limit emissions of PM and SO_2, and good combustion practices to limit emissions of NO_x, CO, and VOC. Natural gas is the cleanest fossil fuel and will minimize the emissions of PM and SO_2 to emission levels recognized as BACT. Emissions from the gas heaters will be minimized to an expected NO_x emission rate of 0.1 lb/MMBtu.

The use of alternate controls such as SCR or SNCR is neither cost effective nor practicable on these emission units. There are no alternative controls for the gas heaters (i.e., 10 MMBtu/hr or less). These units also have potential emissions meeting the Department's criteria for a generic exemption and would otherwise be considered an insignificant emission activity (i.e., less than 5 TPY of a regulated pollutant).

TABLE 4-1
PROPOSED BACT EMISSION RATES FOR WCEC UNIT 3

Pollutant	Fuel	Operating Mode	Proposed BACT	Compliance Methods
NO_x	Natural Gas	All	2 ppmvd at 15% O_2	Initial: EPA Methods- 7e or 20, Continuous: CEM 24-hour Block
	Light Oil	All	8 ppmvd at 15% O_2	Initial: EPA Methods- 7e or 20, Continuous: CEM 24-hour Block
CO	Natural Gas	CT Only	4.1 ppmvd at 15% O_2	Initial: EPA Method 10
	Natural Gas	CT & DB	7.6 ppmvd at 15% O_2	Initial: EPA Methods 10
	Gas/Light Oil	All	8 ppmvd at 15% O_2	Continuous: 24-hour Block
	Gas/Light Oil	All	6 ppmvd at 15% O_2	Continuous: 12-month rolling
	Light Oil	CT Only	8 ppmvd at 15% O_2	Initial: EPA Method 10, Continuous: CEM 24-hour Block
VOC	Natural Gas	CT Only	1.2 ppmvd at 15% O_2	Initial Only: EPA Methods 18 or 25a (baseload)
	Natural Gas	CT & DB	1.5 ppmvd at 15% O_2	Initial Only: EPA Methods 18 or 25a (baseload and duct firing)
	Light Oil	CT Only	6.0 ppmvd at 15% O_2	Initial Only: EPA Methods 18 or 25a (baseload)
PM/PM_{10}	Natural Gas	CT, CT & DB	10% Opacity	Initial/Annual: EPA Method 9
	Light Oil	CT	10% Opacity	Initial/Annual: EPA Method 9
SO_2 and SAM	Natural Gas	CT, CT & DB	2 grains S/100 scf	Initial/Annual: 40 CFR Part 75 Fuel Sampling
	Light Oil	CT	0.0015% S	Initial/Annual: 40 CFR Part 75 Fuel Sampling

Note: CT = combustion turbine; DB = duct burner; S = sulfur.

TABLE 4-2

SUMMARY OF SCR AND $SCONO_x$™ BACT ANALYSIS FOR WCEC UNIT 3 (PER CT/HRSG)

	Alternative BACT Control Technologies		
	DLN Only	**DLN with SCR (2.0 ppmvd corrected)**	**DLN with SCONOx™ (2.0 ppmvd corrected)**
Technical Assessment	Feasible	Available, Feasible and Demonstrated	Not Demonstrated
Economic Impact [a]			
Capital Costs	included	$6,361,675	$37,226,636
Annualized Costs	included	$2,420,319	$7,691,427
Cost Effectiveness (per ton of Nox removed)			
Incremental from 2.0 ppm	NA	$3,602	$11,447
Environmental Impact [b]			
Total NO_x (TPY)	781	108.9	108.9
NOx Reduction (TPY)	NA	672	672
Ammonia Emissions (TPY)	0	155	0
PM Emissions (TPY)	0	13.7	0
Secondary Emissions (TPY)	0	8.4	51.7
Net Emission Reduction (TPY)	NA	-495	-624
Energy Impacts [c]			
Energy Use (kWh/yr)	0	8,308,527	47,474,766
Energy Use (kWh/yr) - Back Pressure	0	7,607,727	15,215,454
Energy Use (kWh/yr) - Other	0	700,800	32,259,312
Energy Use (Equivalent Residential Customers/year)	0	692	3,956
Energy Use (mmBtu/yr) at 10,000 Btu/kWh	0	73,577	420,420
Energy Use (mmcf/yr) at 1,000 Btu/cf for natural gas	0	74	420
Energy Use (percent of combustion turbine output)	0	0.37%	2.12%

[a] See Appendix B tables for detailed development of capital costs (including recurring costs) and annualized costs.

[b] See emission data presented in Appendix B.

[c] Energy impacts are estimated due to the lost energy from heat rate penalty and electrical usage for the SCR operation at 8,760 hours per year. Lost energy for SCR is based on 0.28 percent of 250 MW. SCR electrical usage is based on 0.080 MWh per SCR system. Lost Energy for SCONOx™ includes 0.6 percent of turbine output and steam usage. SCONOx™ electrical usage based on 0.2 MW/hr per system.

TABLE 4-3
SUMMARY OF CO BACT ANALYSIS FOR WCEC UNIT 3

	Alternative BACT Control Technologies	
	DLN Only	**DLN with OC**
Technical Assessment	Feasible	Available, Feasible and Demonstrated
Economic Impact [a]		
Capital Costs	included	$2,017,274
Annualized Costs	included	$887,647
Cost Effectiveness		
CO Removed (per ton of CO)	NA	$8,667
Environmental Impact [b]		
Total CO (TPY)	161	59
CO Reduction (TPY)	NA	-101
Net Pollutant Reduction	NA	-86
Energy Impacts [c]		
Energy Use (kWh/yr)	0	4,475,134
Energy Use (Equivalent Residential Customers/year)	0	373
Energy Use (mmBtu/yr) at 10,000 Btu/kWh	0	39,630
Energy Use (mmcf/yr) at 1,000 Btu/cf for natural gas	0	40

[a] See Appendix B tables for detailed development of capital costs (including recurring costs) and annualized costs.

[b] See emission data presented in Appendix B.

[c] Energy impacts are estimated due to the lost energy from heat rate penalty for 8,760 hours per year. Lost energy is based on 0.2 percent of 250 MW.

5.0 AMBIENT MONITORING ANALYSIS

The PSD rules require that an air quality analysis be conducted for each criteria and non-criteria pollutant subject to regulation under the Act before a major stationary source or major modification at a major stationary source is constructed. Criteria pollutants are those pollutants for which AAQS have been established. Non-criteria pollutants are those pollutants that may be regulated by emission standards, for which AAQS have not been established. This analysis may be performed by the use of modeling and/or by monitoring the air quality. In addition, if EPA has not established an acceptable ambient monitoring method for the pollutant, monitoring is not required.

Based on the potential emissions from the Project (see Table 3-3), pre-construction ambient monitoring analyses for SO_2, PM_{10}, NO_2, CO, ozone (based on VOC emissions), and SAM may be required as part of the application. Ambient monitoring analyses are not required if it can be demonstrated that the proposed source's maximum air quality impacts will not exceed the PSD *de minimis* concentration levels and, for ozone (based on VOC and NO_x emissions), VOC or NO_x emissions of 100 TPY.

For SAM, which is a non-criteria pollutant, although the Project's emissions are greater than the significant emission rate, EPA has established no acceptable monitoring method for this pollutant.

As shown in Section 6.10, the Project's maximum impacts are predicted to be below the PSD *de minimis* concentration levels for all pollutants. As a result, preconstruction ambient monitoring is not required for this application.

For ozone, EPA has established a PSD *de minimis* monitoring level for a project based on an increase in VOC or NO_x emissions of 100 TPY or more, which would require a preconstruction ambient monitoring analysis. Although the Project's VOC emissions are less than 100 TPY, the Project's NO_x emissions are greater than 100 TPY, preconstruction ambient monitoring analysis for ozone (based on NO_x emissions) is required as part of the application.

Since the Project's maximum 24-hour average SO_2 and PM_{10} impacts are predicted to be greater than the respective significant impact levels (see Section 6.10), detailed air modeling analyses are required to address compliance with the AAQS for these pollutants. For these analyses, total air quality impacts are predicted for the modeled sources, which are added to a non-modeled background concentration. The non-modeled background concentrations are estimated from representative ambient air quality monitoring data obtained from air monitoring stations. The background concentrations developed for this Project are discussed in the following section.

5.1 O_3 Ambient Monitoring Analyses

Palm Beach County and adjacent counties are classified as attainment for O_3. The nearest monitor to the Site that measures ozone concentrations is located at Royal Palm Beach (AIRS No. 12-099-0009) in Palm Beach County, approximately 13 km (8 miles) to the east of the project site. This station is operated by the Palm Beach County Health Department and measures concentrations according to EPA procedures. Since O_3 is a regional pollutant, ozone monitoring data collected in Palm Beach County are considered to be representative of O_3 concentrations for the region and are used to satisfy this requirement for the project.

As shown in Table 5-1, from 2004 through 2006, the second-highest 1-hour average ozone concentration measured at Royal Palm Beach (the nearest site to the project) was 0.093 ppm. This maximum concentration is less than the existing 1-hour average ozone AAQS of 0.12 ppm. In addition, the 3-year average of the fourth highest 8-hour average ozone concentration was 0.067 ppm, and is below the revised 8-hour average ozone AAQS of 0.08 ppm. These O_3 monitoring data are included as part of this permit application to satisfy the preconstruction monitoring requirement for the Project.

5.2 SO_2 and PM_{10} Ambient Monitoring Analyses

Palm Beach County and adjacent counties are classified as attainment for both SO_2 and PM_{10}. The nearest SO_2 monitoring station to the Site is located in Riviera Beach in Palm Beach County (AIRS No. 12-099-3004), approximately 47 km (29 miles) to the southeast of the Project Site. The nearest PM_{10} monitoring station to the Site is located in Belle Glade (AIRS No. 12-099-0008), approximately 28 km (17 miles) to the west of the Project Site. Both stations are operated by the Palm Beach County Health Department and measure concentrations according to EPA procedures. The monitors are located in areas that have similar or more commercial and industrial activities than are present near the Project Site. As such, the monitoring data are considered to be representative of background air quality near the Site.

As shown in Table 5-2, from 2004 through 2006, the highest annual and second-highest 24-hour and 3-hour average SO_2 concentrations of 3, 8, and 8 $\mu g/m^3$, respectively, are well below the respective AAQS of 60, 260, and 1,300 $\mu g/m^3$. The second-highest 24-hour average SO_2 concentration of 8 $\mu g/m^3$ was used to represent background concentrations and added to model-predicted concentrations to estimate total air quality levels for comparison to the 24-hour AAQS.

The highest annual and second-highest 24-hour average PM_{10} concentrations of 20 and 42 $\mu g/m^3$, respectively, are well below the respective AAQS of 50 and 150 $\mu g/m^3$. The second-highest 24-hour average PM_{10} concentration of 42 $\mu g/m^3$ was used to represent background concentrations and added to model-predicted concentrations to estimate total air quality levels for comparison to the 24-hour AAQS.

TABLE 5-1

SUMMARY OF MAXIMUM O_3 CONCENTRATIONS MEASURED NEAR PROPOSED WCEC UNIT 3

					Concentration (ppm)		
					3-Hour		8-Hour
County	AIRS No.	Location	Year	No. of Observations	Highest	2nd Highest	3-year Average 4th Highest
Florida AAQS [a]					NA	0.12	0.08
Palm Beach	12-099-0009	Royal Palm Beach	2006		0.101	0.093	0.067
		980 Crestwood Blvd. North	2005		0.080	0.079	0.066
		(Waste Water Plant)	2004		0.080	0.077	0.066

Note: NA = not applicable.
AAQS = ambient air quality standard.

[a] On July 18, 1997, the ozone standard was modified to be 0.08 ppm; achieved when 3-year average of 99th percentile is 0.08 ppm 157 µ/m3 or less. FDEP has not yet adopted these standards.

Source: EPA, 2007 (Quick Look Report, Air Quality Subsystem).

TABLE 5-2
SUMMARY OF MAXIMUM SO_2 AND PM_{10} CONCENTRATIONS MEASURED NEAR PROPOSED WCEC UNIT 3

					Concentration (µg/m³)				
					3-Hour		24-Hour		Annual
County	AIRS No.	Location	Year	No. of Observations	Highest	2nd Highest	Highest	2nd Highest	Average
SO_2									
Florida AAQS [a]					NA	1,300	NA	260	60
Palm Beach	12-099-3004	Riviera Beach	2006	8668	5	5	5	5	3
		1050 15th Street W	2005	7352	8	8	8	8	3
			2004	5647	5	5	3	3	3
PM_{10}									
Florida AAQS [b]					NA	NA	NA	150	50
Palm Beach	12-099-0008	Belle Glade-	2006	61	NA	NA	52	42	20
		38754 State Road 80	2005	45	NA	NA	41	38	18
			2004	49	NA	NA	31	30	17

Note: NA = not applicable.
AAQS = ambient air quality standard.

[a] The Florida ambient air quality standards for SO_2 are 60 µg/m³, annual arithmetic mean; 260 µg/m³, 24-hour average; 1,300 µg/m3, 3-hour average and the 3- and 24-hour averages not to be exceeded more than once per year.

[b] The national and Florida ambient air quality standards for PM_{10} are 50 µg/m³, annual arithmetic mean; 150 µg/m³, 24-hour average; and the expected average exceedance not to be exceeded more than once over a three-year period.

Source: EPA, 2007 (Quick Look Report, Air Quality Subsystem).

6.0 AIR QUALITY IMPACT ANALYSIS

6.1 Significant Impact Analysis Approach

6.1.1 Site Vicinity (Near Field)

The general modeling approach for WCEC Unit 3 Project followed the EPA and FDEP modeling guidelines for determining compliance with AAQS and PSD increments. For all criteria pollutants that will be emitted in excess of the PSD significant emission rate due to a proposed project, a significant impact analysis is performed to determine whether the emission and/or stack configuration changes due to the Project alone will result in predicted impacts that are in excess of the EPA significant impact levels.

If Project-only impacts are above the significant impact levels in the vicinity of the facility, then two additional and more detailed air modeling analyses are required. The first analysis demonstrates compliance with federal and Florida AAQS, and the second analysis demonstrates compliance with allowable PSD Class II increments.

6.1.2 PSD Class I Areas (Far Field)

Generally, if a major new facility is located within 200 km of a PSD Class I area, then a significant impact analysis is also performed to evaluate the impact due to the Project alone at the PSD Class I area. The existing WCEC Site is mostly rural and flat and is located approximately 102 km north of the PSD Class I area of the Everglades NP. Because the second nearest PSD Class I area, the Chassahowitzka National Wildlife Area (NWA), is located 306 km from the Site, the PSD Class I analysis addressed impacts only at the Everglades NP. The maximum predicted impacts at the Everglades NP are compared to EPA's proposed significant impact levels for PSD Class I areas. These recommended levels are the currently accepted criteria to determine whether a proposed project will incur a significant impact on a PSD Class I area.

If Project-only impacts at the PSD Class I area are above the proposed EPA PSD Class I significant impact levels, then a cumulative analysis is performed to demonstrate compliance with allowable PSD Class I impacts at the PSD Class I area.

In addition, the Project's maximum concentrations are evaluated at the PSD Class I area for pollutants whose emissions are greater than the significant emission rate, to address potential impacts on AQRV. This analysis includes evaluations of visibility and deposition impacts.

6.2 Pre-Construction Monitoring Analysis Approach

The modeling approach followed EPA and FDEP modeling guidelines for evaluating a project's impacts relative to the *de minimis* monitoring levels to determine the need to submit ambient monitoring data prior to construction. Current FDEP policies stipulate that the predicted highest annual average and highest short-term concentrations are to be compared to the applicable *de minimis* monitoring levels.

6.3 Air Modeling Analysis Approach

6.3.1 General Procedures

As stated in the previous sections, air modeling analyses are required to determine if the WCEC Unit 3 Project's impacts are predicted to be greater than the significant impact levels and *de minimis* monitoring levels for each pollutant that is emitted above the significant emission rate. These analyses consider the Project's impacts alone. Air quality impacts are predicted using 5 years of meteorological data and selecting the highest predicted ground-level concentrations for comparison to the significant impact levels and *de minimis* monitoring levels. The modeling protocol for the project is presented in Appendix G.

6.3.2 PSD Class II Analysis

If the Project's impacts are greater than the significant impact levels, the air modeling analyses must consider other nearby sources and background concentrations to predict a total concentration for comparison to AAQS. Because the Project's maximum 24-hour average SO_2 and PM_{10} impacts are predicted to be greater than the significant impact level, additional AAQS and PSD Class II increment analyses were performed for these pollutants and averaging times.

Generally, when using 5 years of meteorological data for the analysis, the highest annual and the highest, second-highest (HSH) short-term (i.e., 24 hours or less) concentrations are compared to the applicable AAQS and allowable PSD increments. The HSH concentration is calculated each year for a receptor field by:

1. Eliminating the highest concentration predicted at each receptor,
2. Identifying the second-highest concentration at each receptor, and
3. Selecting the highest concentration among these second-highest concentrations.

The HSH approach is consistent with AAQS and allowable PSD increments, which permit a short-term average concentration to be exceeded once per year at each receptor.

It should be noted that for determining compliance with the 24 hour AAQS for PM_{10}, the highest of the sixth-highest concentrations predicted in 5 years (i.e., H6H), instead of the HSH concentration predicted for each year, is used to compare to the 24-hour AAQS.

The AAQS analysis is a cumulative source analysis that evaluates whether the concentrations from all sources will comply with the AAQS. These concentrations include the modeled impacts from sources at the Site and from other nearby facility sources added to a background concentration. The background concentration accounts for sources not included in the modeling analysis.

The PSD Class II analysis is a cumulative source analysis that evaluates whether the concentrations for increment-affecting sources will comply with the allowable PSD Class II increments. These concentrations include the modeled impacts from PSD increment-affecting sources at WCEC, plus nearby PSD increment-affecting sources at other facilities.

6.3.3 PSD Class I Analysis

For each pollutant for which a significant impact is predicted at the PSD Class I area, a cumulative PSD Class I analysis is required. The PSD Class I cumulative source analysis evaluates whether the concentrations for increment-affecting sources located within 200 km of the PSD Class I area will comply with the allowable PSD Class I increments. These concentrations include the impacts from PSD increment-affecting sources at WCEC, plus the impacts from PSD increment-affecting sources at other facilities.

6.4 Model Selection

The selection of air quality models to calculate air quality impacts for the WCEC Unit 3 Project must be based on the models' ability to simulate impacts in areas surrounding the Site as well as at the

PSD Class I area of the Everglades NP, located about 102 km from the Site. Two air quality dispersion models were selected and used in these analyses to address air quality impacts for the Project. These models were:

- The American Meteorological Society and EPA Regulatory Model (AERMOD) dispersion model, and
- The California Puff model (CALPUFF).

The AERMOD dispersion model (Version 07026) is available on the EPA's Internet web site, Support Center for Regulatory Air Models (SCRAM), within the Technology Transfer Network (TTN). A listing of AERMOD model features is presented in Table 6-1.

The EPA and FDEP recommend that the AERMOD model be used to predict pollutant concentrations at receptors located within 50 km from a source. The AERMOD model calculates hourly concentrations based on hourly meteorological data. The AERMOD model is applicable for most applications since it is recognized as containing the latest scientific algorithms for simulating plume behavior in all types of terrain.

The AERMOD model was used to predict the maximum pollutant concentrations due to the Project in nearby areas surrounding the Site. The AERMOD model was also used to predict the maximum pollutant concentrations due to the Project's emissions together with appropriate background sources. The predicted concentrations were then compared to the applicable AAQS and PSD Class II increments.

At distances beyond 50 km from a source, the CALPUFF model is recommended for use by the EPA and the Federal Land Manager (FLM). The CALPUFF model [Version 5.8 (i.e., latest EPA-approved version)] is maintained by the EPA on the SCRAM internet website. A listing of CALPUFF model features is presented in Table 6-2.

The CALPUFF model is a long-range transport model applicable for estimating the air quality impacts in areas that are more than 50 km from a source. The methods and assumptions used in the CALPUFF model are based on the latest recommendations for modeling analysis as presented in the following reports:

- *The Interagency Workgroup on Air Quality Models (IWAQM), Phase 2 Summary Report and Recommendations for Modeling Long Range Transport Impacts* (EPA, 1998); and
- *The Federal Land Manager's Air Quality Relative Values Workgroup (FLAG) Phase I Report* (December 2000).

The CALPUFF model was used to perform a significant impact analysis and potentials impact on regional haze, total nitrogen deposition, and sulfur deposition levels for the Project at the PSD Class I area of Everglades NP.

For modeling analyses that will undergo regulatory review, such as PSD permit applications, the following model features are recommended by EPA for rural mode and are referred to as the regulatory default options in the AERMOD model and, where applicable, the CALPUFF model:

1. Final plume rise at all receptor locations,
2. Stack-tip downwash,
3. Buoyancy-induced dispersion,
4. Default wind speed profile coefficients for rural mode,
5. Default vertical potential temperature gradients, and
6. Calm wind processing.

The EPA regulatory default options were used to address maximum impacts.

6.5 Meteorological Data

Meteorological data used in the AERMOD model to determine air quality impacts consisted of a concurrent 5-year period of hourly surface weather observations from the National Weather Service (NWS) office located at the at the Palm Beach International (PBI) Airport and upper air sounding data collected at the Florida International University (FIU) in Miami. The 5-year period of the meteorological data was from 2001 through 2005. The NWS office at PBI is located approximately 30 km (18 miles) east of the Site and is the closest primary weather station to the study area considered to have meteorological data representative of the Project Site.

As the PBI meteorological station is only 30 km from the Site and the terrain between the two sites is mostly flat, the wind direction and wind speed frequencies that are experienced at PBI are considered to be very similar to that experienced at the WCEC Site. As such, the PBI wind direction and wind speed frequencies are considered to be representative of the WCEC Site.

A comparison of the average land use parameters at PBI and the WCEC Site was performed using the AERSURFACE program. AERSURFACE reads land use files developed by the U.S. Geological Survey and provides average land use values for albedo, Bowen Ratio, and surface roughness within a specified radius. For this study, a 3-km radius was used. The average land uses values within 3 km of each site are as follows:

Average land use around PBI:

- Albedo – 0.18
- Bowen ratio – 1.10
- Surface roughness – 0.635 m

Average land use around WCEC:

- Albedo – 0.15
- Bowen ratio – 0.70
- Surface roughness – 0.207 m

While the average albedo and Bowen ratio for the two sites are considered similar, the surface roughness values are somewhat different. Therefore, while the wind direction and wind speed frequencies are considered quite representative of the WCEC Site, the average surface roughness value at PBI is considered to be less representative of that at the WCEC Site. It should be noted that in spite of the very flat terrain that is characteristic of south Florida, such differences in land use within even 30 km, are not uncommon or unexpected in this area. Since all of south Florida's major airports are located within the fringe of the large urbanized coastal area, the average surface roughness at these areas is generally much greater than those found in the more remote, rural areas such as the WCEC Site. Consequently, unless a project site is very close to where surface observations are measured, the two sites are not necessarily going to share all of the same meteorological and land use characteristics. As such, the PBI meteorological data were selected for the proposed WCEC Project, and, in spite of some data differences noted previously, the PBI data are considered the most representative and are readily available for modeling of the WCEC Site. It should be noted that the PBI meteorological data have been approved by the FDEP and used for numerous air modeling studies submitted as part of air construction permits approved for sources located in Palm Beach County.

To assess the potential effect that the differences in land use values between the PBI and WCEC Site may have on the maximum predicted concentrations in the vicinity of the WCEC Site, the PBI meteorological data were processed with the land use values developed for the WCEC Site. An air modeling analysis was then performed using these data and the results compared with those predicted using the PBI land use values. The results of this analysis are presented in Appendix C.

These results indicate that, for the WCEC Site, incorporation of the Project Site's land use parameters in the air modeling analysis result in predicted air quality impacts that are lower than those predicted with the PBI land use parameters. While such results are project specific, the difference in average surface roughness between the WCEC Site and PBI appears to result in conservatively higher air quality impacts using the PBI values.

6.6 Emission Inventory

6.6.1 Significant Impact Analysis

Summaries of the criteria pollutant emission rates, physical stack and stack operating parameters for the proposed WCEC Unit 3 Project that were used in the air modeling analysis are presented in Tables 2-1 and 2-2, as well as Appendix A.

In an effort to obtain the maximum air quality impacts for a range of possible operating conditions, the air modeling used a range of emission rates and stack parameter data to predict air quality impacts.

For the 3-on-1 combined cycle project, the emission and stack operating parameters for the CTs are presented for two operating loads and 35°F, 59°F, and 95°F ambient temperatures for the CTs firing natural gas and oil. A total of 12 modeling scenarios were considered for combined cycle configuration with the CTs operating for the following conditions:

- CTs firing natural gas for ambient temperatures of 35, 59, and 95°F at:

  - 100 percent operating load, including duct-firing
  - 75 percent operating load
- CTs firing oil for ambient temperatures of 35, 59, and 95°F at:
  - 100 percent operating load
  - 75 percent operating load

To determine the operating load that produced the maximum impacts from the CTs, an emission rate of 79.365 lb/hr or 10 grams per second (g/s) was initially used for the power block. Each CT was modeled with 1/3 of these emissions. These modeling results produced relative concentrations as a function of the modeled emission rate (i.e., $\mu g/m^3$ per 10.0 g/s). These impacts are referred to as generic pollutant impacts. Maximum air quality impacts for specific pollutants were then determined by multiplying the maximum pollutant-specific emission rate in lb/hr (g/s) by the maximum predicted generic impact divided by the modeled emission rate [e.g., 79.365 lb/hr (10.0 g/s)].

For these analyses, as a conservative estimate of impacts during natural gas-firing, the pollutant emissions at 100 percent load included duct-firing for every hour in the year even though duct-firing will be limited to 2,880 hr/yr.

Additional analyses were performed for SO_2, NO_x, and PM_{10} emissions to address the combined impact of the CTs and other Project sources. For SO_2 and NO_x impacts, modeling was performed that included the CTs and gas heater with the CTs operating load that produced the maximum CT impact from the generic impact analysis. For PM_{10} impacts, modeling was performed that included the CTs, gas heater, and cooling tower were modeled. Detailed descriptions of these sources are presented in Section 2.0 and Appendix A.

For these analyses, annual average concentrations and depositions predicted in the near-field of the plant and at the PSD Class I area are based on the operating scenarios with the maximum hourly CT emissions for the following annual hours:

- For SO_2: natural gas firing with duct firing for 8,760 hours; and
- For PM_{10}: natural gas firing with duct firing and ultra low-sulfur light oil firing for 8,260 and 500 hours respectively; and
- For NO_2: for near-field modeling, natural gas firing for 8,260 hours, with duct-firing for 2,880 hours, and oil firing for 500 hours; for PSD Class I

modeling, natural gas firing with duct firing and oil firing for 8,260 and 500 hours respectively.

The proposed CTs will have a HRSG stack height of 149 ft and an inner stack diameter of 22 ft. Because the proposed stack heights are less than GEP, building downwash effects were included in the modeling analysis (see following section on building downwash).

The air modeling origin was assumed to be centered on the proposed unit. For PSD Class I modeling, the modeling origin was assumed to be located at UTM east and north coordinates of 562,201.6 and 2,952,654.5 meters, respectively, in UTM Zone 17. These coordinates correspond to x and y Lambert Conformal Coordinates of 1,670.02 and −1,328.24, respectively.

6.6.2 AAQS and PSD Class II Analyses

The maximum pollutant impacts for Unit 3 are predicted to be less than the significant impact levels for all pollutants and averaging periods except for SO_2 and PM_{10} for the 24-hour averaging periods. As a result, cumulative source impact analyses are required to demonstrate compliance with the 24-hour average SO_2 and PM_{10} AAQS and PSD Class II increments.

Air quality concentrations were predicted within the area of significant impact for individual pollutants due to Unit 3. A significant impact area (SIA) and the radius of the SIA were determined for each pollutant and averaging time combination for which Unit 3's impact is predicted to be significant. The radius of impact is used as the basis for determining inventory of background sources to be included in the air impact analyses.

Unit 3's SIA for the 24-hour average SO_2 and PM_{10} concentrations are predicted to extend out to 1 and 1.5 km from the Site, respectively. As a conservative approach, the SIA for developing an inventory of background sources was assumed to extend out to 2 km for both pollutants.

Data for sources were obtained from FDEP. Facilities located within the SIA were modeled explicitly (considered to be the modeling area). Facilities within the SIA plus 50 km were considered to be in the screening area. All facilities in the screening area were evaluated using the North Carolina screening technique also known as the 20D approach. Based on this technique, facilities whose annual emissions (i.e., TPY) are less than the threshold quantity, Q, are eliminated from the modeling analysis. Q is equal to 20 × (D−SIA), where D is the distance in km from the facility to the

Site. Before elimination based on the 20D approach, facilities in the screening area were sorted by direction and distance to check the close proximity of the facilities to one another. Facilities that were found to be within approximately 3 degrees of one another direction-wise and within approximately 5 km of one another distance-wise were grouped, their potential emissions were summed and then compared to the threshold quantity Q. Facilities that already satisfied the 20D criteria for inclusion, were excluded from the source groups.

In addition, the source inventories were evaluated to identify facilities located beyond the screening area and up to 100 km from the grid center. Facilities in this area that have the potential to emit more than 1,000 TPY were included in the modeling inventory.

Permit-allowable emission rates or potential emission rates were used for the AAQS analysis based on whether permit-allowable emission rates are available for the unit. Actual emission rates are recommended for PSD Class II increment analysis. However, data on actual emission rates are difficult to gather and the FDEP has been contacted for actual emissions data for PM_{10}. As a conservative approach, potential or permit-allowable emission rates are used for most of the sources in the PM_{10} PSD Class II increment analysis. However, as discussed in the following section, actual PM_{10} emissions were used for sources near the WCEC.

An SO_2 actual emissions inventory was prepared for the recently proposed FPL Glades Power Project for PSD Class I increment analysis at the Everglades NP, which included detail research of actual emissions data for current and baseline emissions for major sources such as power plants and sugar industry sources. This SO_2 emissions inventory was jointly worked on by Golder, FDEP, and the National Park Service (NPS), and includes many facilities that are part of the inventory used for the Unit 3 project. Therefore, actual current and baseline SO_2 emissions data were used for the Unit 3 project's PSD Class II increment analysis whenever available. A summary of these SO_2 emissions data is presented in Appendix D.

The primary source of SO_2 and PM_{10} emission and operating data for non-major facilities is the FDEP Query Report. For the non-major facilities that are located within the significant impact area, detailed permit data were requested from the local permitting authority. These included the Hubbard Construction Company, Palm Beach Aggregates and the SFWMD Pump Station No. S-5A. For Hubbard Construction Company, SO_2 emissions were obtained from the technical evaluation and preliminary determination (TEPD) document. PM_{10} emissions from this facility were obtained from the TEPD document and the FDEP Query Report. According to the TEPD document, fugitive PM_{10} emissions from this facility occur for about 680 hours/year based on the annual PM emissions. This is equivalent to about 2 hours/day. However, as a conservative approach, this source was modeled for 12 hours/day from 7 a.m. to 7 p.m. All other emission sources were assumed to operate 24 hours/day.

For Palm Beach Aggregates, a limestone quarry located adjacent to the WCEC, road traffic and material handling fugitive PM_{10} emissions were calculated based on process information obtained from the 2006 annual operating report and emission factors for the activities from AP-42. Both potential and actual PM_{10} emissions were estimated for these activities.

The TEPD report for the Hubbard Construction Company and details of the emissions calculation for Palm Beach Aggregates are presented in Appendix D. It should be noted that Hubbard Construction Company operates on the property owned and controlled by Palm Beach Aggregates. Therefore, for the purposes of modeling, both facilities are considered as one facility operating within the property of Palm Beach Aggregates.

The SFWMD Pump Station S-5A operates six 1600-horsepower (hp) diesel engines. The potential PM_{10} and SO_2 emissions from these engines were calculated using the maximum heat input rate and AP-42 emission factors for large diesel engines. The actual PM_{10} and SO_2 emission rates were calculated based on actual fuel used by the pump station from the 2006 annual operating report. Details of the emission calculation for the Pump Station S-5A are also presented in Appendix D.

Listings of SO_2 sources that were used in the AAQS and PSD Class II analyses and their locations relative to WCEC are provided in Tables 6-3. Similarly, listings of PM_{10} sources that were used in the AAQS and PSD Class II analyses and their locations relative to WCEC are provided in 6-4. Detailed SO_2 and PM_{10} source data that were used for the AAQS and PSD Class II increment analyses are presented in Appendix D.

6.6.3 PSD Class I Analysis

The maximum WCEC Unit 3 Project's impacts at the PSD Class I area of the Everglades NP are predicted to be less than the proposed PSD Class I significant impact levels for all pollutants and averaging periods. As a result, cumulative source impact analyses are not required to demonstrate compliance with the PSD Class I increments at the Everglades NP.

6.7 Building Downwash Effects

All significant building structures in the Project area were identified by the Site plot plan (see Figure 2-1). The building structures were processed in the EPA Building Profile Input Program [(BPIP), Version 95086] program to determine direction-specific building heights and widths for each 10-degree azimuth direction for each source that was included in the modeling analysis. A listing of dimensions for each structure is presented in Table 6-5. See Appendix E for plots of these building structures.

Based on this evaluation, the GEP stack height for the Project was determined to be 257.5 ft. Therefore, building downwash effects were included in the air modeling analyses.

6.8 Receptor Locations

6.8.1 Site Vicinity

To determine the maximum impact for all pollutants and averaging times in the vicinity of the WCEC Unit 3 Project, concentrations were predicted at receptors located in a detailed receptor grids centered on the proposed unit, the modeling origin, and extended from the plant property out to 10 km. The Site is nominally 25 ft NGVD. Although the terrain around the immediate vicinity is flat, receptor elevations were included at each receptor in the analysis.

Along the plant boundary, a Cartesian receptor grid was used to predict concentrations for the WCEC Unit 3 Project at 119 receptors spaced at 50-meter intervals. In addition, a general Cartesian grid was used to predict concentrations beyond the plant property out to 10 km. Receptors were located at the following intervals and distances from the origin:

- Along the property boundary or fenceline – 50 m;
- Beyond the fenceline to 2 km – 100 m;
- From 2 km to 5 km – 250 m;
- From 5 km to 7 km – 500 m; and
- From 7 km to 10 km – 1,000 m.

More than 3,500 receptors were used in the analysis to determine the maximum impacts for the Project. If the maximum impacts for the Project are predicted in an area where receptor resolution is greater than 100 m, additional 100-m receptor spacing would be used.

In the AAQS and PSD Class II increment analyses, the modeling grid for SO_2 and PM_{10} extended out to 1.0 km and 1.5 km, respectively, from the site from the Project, using the same resolution described previously. Two separate modeling scenarios were performed within the Project's significant impact area to account for the impacts only in the ambient air relative to WCEC and to nearby facilities: Ambient air means that portion of the atmosphere, external to buildings, to which the general public has access [40 CFR 501(e)]. In addition, ambient air does not include the atmosphere over land owned or controlled by a source and to which public access is precluded by a fence or physical barrier. The two modeling scenarios were as follows:

1. All receptors, including those within the property owned by Palm Beach Aggregates, to predict impacts for all sources, except Hubbard Construction Company and Palm Beach Aggregates; and
2. All receptors, except those within the property owned by Palm Beach Aggregates, to predict impacts for all sources.

In this manner, the maximum SO_2 and PM_{10} impacts were predicted at ambient air receptors relative to the Project and to Palm Beach Aggregates.

For the addressing compliance with AAQS and PSD Class II increment analysis for PM_{10} only, the modeling receptor grid excluded a receptor located 31 m from Pump Station S-5A which lies just to the south of US 98.

6.8.2 Class I Area

The Project's impacts at the PSD Class I area of the Everglades NP were predicted in an array of 901 discrete receptors. These receptors were obtained from the NPS.

6.9 Background Concentrations

Background concentrations are necessary to determine total ambient air quality impacts to demonstrate compliance with the AAQS. "Background concentrations" are defined as concentrations due to sources other than those specifically included in the modeling analysis. For all pollutants, background would include other point sources not included in the modeling (i.e., distant sources or small sources), fugitive emission sources, and natural background sources. In general, monitoring data collected near the area in which the air quality impact is performed is used for this purpose.

Summaries of ambient SO_2 and PM_{10} concentrations measured are presented in Section 5.0. Based on data collected from 2004 to 2006, the 24-hour average SO_2 and PM_{10} concentrations of 8 and 42 $\mu g/m^3$, respectively, were selected to represent background concentrations since they were the HSH 24-hour concentrations measured during that period.

6.10 Model Results

6.10.1 PSD Class II Significant Impact Analysis

The maximum pollutant concentrations predicted for the WCEC Unit 3 Project are given in Tables 6-6 and 6-7. The maximum concentrations predicted for the CTs for the Project only are presented in Table 6-6. The maximum concentrations for the Project, including the CTs, gas heater, and cooling tower, for comparison to the PSD Class II significant impact levels, are presented in Table 6-7.

As shown in Table 6-7, the modeling results indicate that maximum concentrations due to the Project are predicted to be less than the significant impact levels for all pollutants, except SO_2 and PM_{10} for the 24-hour averaging periods. As a result, additional modeling analyses are required only to demonstrate compliance with the 24-hour average SO_2 and PM_{10} AAQS and PSD Class II increments.

Examples of the modeling input and summary files are provided in Appendix F.

6.10.2 PSD Class I Significant Impact Analysis

The maximum SO_2, NO_2, and PM_{10} concentrations predicted for WCEC Unit 3 Project at the PSD Class I area of the Everglades NP are given in Table 6-8. As shown, the maximum Project impacts at the PSD Class I area of the Everglades NP are predicted to be less than the proposed PSD Class I significant impact levels for the SO_2, PM_{10}, and NO_2.

6.10.3 Cumulative SO_2 and PM_{10} AAQS Analyses

A summary of the results of the cumulative SO_2 and PM_{10} AAQS analyses for the 24-hour average SO_2 and PM_{10} concentrations is presented in Table 6-9. The cumulative SO_2 and PM_{10} impacts are the total air quality impacts due to WCEC Unit 3 Project and other modeled sources added to a non-modeled background concentration. The maximum impacts are presented for two scenarios at ambient air receptors relative to the Project (i.e., at all receptors but without Palm Beach Aggregates and Hubbard Construction sources) and relative to Palm Beach Aggregates (i.e., at all receptors except those on the property of Palm Beach Aggregates; Palm Beach Aggregates and Hubbard Construction sources were included). The first scenario includes receptors over all ambient air areas relative to and within the significant impact area of the Project. This scenario would result in biased air quality impacts if Palm Beach Aggregates and Hubbard Construction were modeled on Palm Beach Aggregates property since receptors on the property are not considered ambient air for those two sources. The second scenario includes Palm Beach Aggregates and Hubbard Construction sources but excludes receptors over Palm Beach Aggregates property.

As shown in Table 6-9, the HSH 24-hour average SO_2 concentration is predicted to be 44 $\mu g/m^3$ for the 24-hour averaging time, which is well below the AAQS of 260 $\mu g/m^3$.

The HSH 24-hour average PM_{10} concentration is predicted to be 79 $\mu g/m^3$ for the 24-hour averaging time, which is well below the AAQS of 150 $\mu g/m^3$.

6.10.4 Cumulative SO_2 and PM_{10} PSD Class II Increment Analyses

A summary of the results of the cumulative PSD Class II increment analyses (i.e., impacts due to PSD increment-affecting sources) for the 24-hour average SO_2 and PM_{10} concentrations is presented in Table 6-10. Similar to the AAQS analysis, the maximum impacts are presented for two scenarios at ambient air receptors relative to the Project and to Palm Beach Aggregates.

The HSH 24-hour average SO_2 concentrations due to the Project and other PSD increment-affecting sources are predicted to be 29 $\mu g/m^3$ for the 24-hour averaging time, which is below the allowable 24-hour PSD Class II increment of 91 $\mu g/m^3$.

The HSH 24-hour average PM_{10} concentrations due to the Project and other PSD increment-affecting sources are predicted to be 25 $\mu g/m^3$ for the 24-hour averaging time, which is well below the allowable 24-hour PSD Class II increment of 30 $\mu g/m^3$.

6.11 Ozone Impacts

VOC and NO_x emissions are precursors to the formation of O_3. O_3 is not directly emitted from fuel combustion, but is formed downwind from emission sources when VOC and NO_x emissions react in the presence of sunlight. Natural (i.e., without man-made sources) ambient concentrations of O_3 are normally in the range of 20 to 39 $\mu g/m^3$ (0.01 to 0.02 ppm) (Heath, 1975).

The nearest monitors to the WCEC that measure O_3 concentrations are located in Palm Beach County (see Table 5-1 and Figures 7-17 and 7-18). These stations measure concentrations according to EPA procedures. Based on the O_3 monitoring concentrations measured over the last several years, the region is in attainment of the existing 1-hour O_3 AAQS as well as the new 8-hour O_3 AAQS.

Total VOC emissions in Palm Beach County are estimated to be approximately 54,600 TPY (149.7 tons per day) and 49,900 TPY (136.7 tons per day) for 2005 and 2015, respectively, for stationary and mobile sources from the *Air Quality Maintenance Plan (2005-2015); Dade, Broward, and Palm Beach Counties* (FDEP, 2002). Similarly, total NO_x emissions in the Palm Beach County are estimated to be approximately 55,000 TPY (150.7 TPD) and 39,500 TPY (108.3 TPD) for 2005 and 2015, respectively.

The maximum VOC emissions increase due to the Project is less than 100 TPY, which represents less than a 0.2-percent increase in regional VOC emissions estimated through 2015. The maximum NO_x emissions increase due to the Project is 355 TPY, which represents less than 0.9 percent increase in regional NO_x emissions estimated through 2015.

Therefore, the O_3 impacts, as a result of VOC and NO_x emissions from the Project, are expected to be insignificant.

6.12 Conclusions

Based on these air quality modeling analyses, the maximum pollutant concentrations due to the WCEC Unit 3 Project are predicted to be less than the PSD Class II and I significant impact levels for all pollutants except the 24-hour average SO_2 and PM_{10} PSD Class II significant impact levels. As a result, more detailed SO_2 and PM_{10} modeling analyses were performed with background sources to address compliance with the AAQS and PSD Class I increments.

The results of the more detailed modeling analyses demonstrate that the WCEC Unit 3 Project will not have a significant affect on air quality and will comply with all applicable AAQS and PSD increments. Indeed, the modeling results clearly demonstrate that Florida's air quality will be protected.

TABLE 6-1

MAJOR FEATURES OF THE AERMOD MODEL, VERSION 07026

AERMOD Model Features
• Plume dispersion/growth rates are determined by the profile of vertical and horizontal turbulence, vary with height, and use a continuous growth function.
• In a convective atmosphere, uses three separate algorithms to describe plume behavior as it comes in contact with the mixed layer lid; in a stable atmosphere uses a mechanically mixed layer near the surface.
• Polar or Cartesian coordinate systems for receptor locations can be included directly or by an external file reference.
• Urban model dispersion is input as a function of city size and population density; sources can also be modeled individually as urban sources.
• Stable plume rise: uses Briggs equations with winds and temperature gradients at stack top up to half way up to plume rise. Convective plume rise: plume superimposed on random convective velocities.
• Procedures suggested by Briggs (1974) for evaluating stack-tip downwash.
• Has capability of simulating point, volume, area, and multi-sized area sources.
• Accounts for the effects of vertical variations in wind and turbulence (Brower et al., 1998).
• Uses measured and computed boundary layer parameters and similarity relationships to develop vertical profiles of wind, temperature, and turbulence (Brower et al., 1998).
• Concentration estimates for 1-hour to annual average times.
• Creates vertical profiles of wind, temperature, and turbulence using all available measurement levels.
• Terrain features are depicted by use of a controlling hill elevation and a receptor point elevation.
• Modeling domain surface characteristics are determined by selected direction and month/season values of surface roughness length, Albedo, and Bowen ratio.
• Contains both a mechanical and convective mixed layer height, the latter based on the hourly accumulation of sensible heat flux.
• The method of Pasquill (1976) to account for buoyancy-induced dispersion.
• A default regulatory option to set various model options and parameters to EPA-recommended values.
• Contains procedures for calm-wind and missing data for the processing of short term averages.

Note: AERMOD = The American Meteorological Society and Environmental Protection Agency Regulatory Model.

Source: EPA, 2007.

TABLE 6-2

MAJOR FEATURES OF THE CALPUFF MODEL, VERSION 5.8

CALPUFF Model Features
• Source types: Point, line (including buoyancy effects), volume, area (buoyant, non-buoyant)
• Non-steady-state emissions and meteorological conditions (time-dependent source and emission data; gridded 3-dimensional wind and temperature fields; spatially-variable fields of mixing heights, friction velocity, precipitation, Monin-Obukhov length; vertically and horizontally-varying turbulence and dispersion rates; time-dependent source and emission data for point, area, and volume sources; temporal or wind-dependent scaling factors for emission rates)
• Efficient sampling function (integrated puff formulation; elongated puff (slug) formation)
• Dispersion coefficient options (Pasquill-Gifford (PG) values for rural areas; McElroy-Pooler values (MP) for urban areas; CTDM values for neutral/stable; direct measurements or estimated values)
• Vertical wind shear (puff splitting; differential advection and dispersion)
• Plume rise (buoyant and momentum rise; stack-tip effects; building downwash effects; partial plume penetration above mixing layer)
• Building downwash effects (Huber-Snyder method; Schulman-Scire method)
• Complex terrain effects (steering effects in CALMET wind field; puff height adjustments using ISC model method or plume path coefficient; enhanced vertical dispersion used in CTDMPLUS)
• Subgrid scale complex terrain (CTSG option) (CTDM flow module; dividing streamline as in CTDMPLUS)
• Dry deposition (gases and particles; options for diurnal cycle per pollutant, space and time variations with a resistance model, or none)
• Overwater and coastal interaction effects (overwater boundary layer parameters; abrupt change in meteorological conditions, plume dispersion at coastal boundary; fumigation; option to use Thermal Internal Boundary Layers (TIBL) into coastal grid cells)
• Chemical transformation options (Pseudo-first-order chemical mechanisms for SO_2, SO_4, HNO_3, and NO_3; Pseudo-first-order chemical mechanisms for SO_2, SO_4, NO, NO_2, HNO_3, and NO_3 (RIVAD/ARM3 method); user-specified diurnal cycles of transformation rates; no chemical conversions)
• Wet removal (scavenging coefficient approach; removal rate as a function of precipitation intensity and type)
• Graphical user interface
• Interface utilities (scan ISC-PRIME and AUSPLUME meteorological data files for problems; translate ISC-PRIME and AUSPLUME input files to CALPUFF input files)

Note: CALPUFF = California Puff Model

Source: EPA, 2007.

TABLE 6-3

SUMMARY OF THE SO_2 FACILITIES CONSIDERED FOR INCLUSION IN THE AAQS AND PSD CLASS II AIR MODELING ANALYSES

			UTM Coordinates		Relative to WCEC [a]				Maximum	Q, (TPY)	
AIRS Number	Facility	County	East (km)	North (km)	X (km)	Y (km)	Distance (km)	Direction (deg)	SO_2 Emissions (TPY)	Emission Threshold [b,c] (Dist - SID) x 20	Include in Modeling Analysis ?
Modeling Area [d]											
0990646	FPL West County Energy Center (WCEC)	Palm Beach	562.2	2953.0	0.0	0.4	0.4	358	436.2	SIA	YES
0990530	HUBBARD CONSTRUCTION COMPANY	Palm Beach	562.8	2952.0	0.6	-0.7	0.9	139	19.5	SIA	YES
0990349	SFWMD Pump Station S-5A	Palm Beach	562.6	2951.3	0.3	-1.3	1.4	165	3.9	SIA	YES
Screening Area [d]											
0990620	SFWMD Pump Station S-319	Palm Beach	566.3	2951.2	4.1	-1.4	4.3	109	4.9	47	NO
0990621	SOUTH FLORIDA WATER MANANGEMENT DISTRICT	Palm Beach	567.2	2945.0	5.0	-7.7	9.2	147	5.0	143	NO
0990016	ATLANTIC SUGAR ASSOCIATION	Palm Beach	552.9	2945.2	-9.3	-7.5	11.9	231	554.7	198	YES
0990549	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	554.2	2940.5	-8.0	-12.2	14.6	213	4.2	252	NO
0990087	RANGER CONSTRUCTION INDUSTRIES, INC.	Palm Beach	579.9	2951.7	17.7	-1.0	17.7	93	37.8	314	NO
0990310	COMMUNITY ASPHALT CORP	Palm Beach	582.3	2950.8	20.1	-1.9	20.2	95	136.6	364	NO
0990333	FLORIDA GAS TRANSMISSION COMPANY	Palm Beach	584.4	2957.1	22.2	4.4	22.6	79	17.2	412	NO
0990019	OSCEOLA FARMS	Palm Beach	544.2	2968.0	-18.0	15.3	23.7	310	640.0	433	YES
0990234	SOLID WASTE AUTHORITY OF PBC	Palm Beach	584.5	2961.3	22.3	8.6	23.9	69	834.2	438	YES
0990021	UNITED TECHNOLOGIES CORPORATION	Palm Beach	568.4	2975.8	6.2	23.2	24.0	15	570.7	440	YES
0990350	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	556.2	2927.8	-6.0	-24.8	25.6	194	4.2	471	NO
0990344	PARKWAY ASPHALT, INC.	Palm Beach	587.4	2962.1	25.2	9.5	26.9	69	43.3	498	NO
0990026	SUGAR CANE GROWERS CO-OP	Palm Beach	534.9	2953.3	-27.3	0.6	27.3	271	2,081.9	506	YES
0990123	FLORIDA POWER & LIGHT (PDC/OSF)	Palm Beach	589.7	2961.2	27.5	8.5	28.8	73	90.0	536	NO
0990061	U.S.SUGAR CORP. BRYANT MILL	Palm Beach	537.8	2969.1	-24.4	16.5	29.4	304	1,136.6	548	YES
0990045	CITY OF LAKE WORTH UTILITIES	Palm Beach	592.8	2943.7	30.6	-9.0	31.9	106	10,627.4	598	YES
0990630	SOUTH FLORIDA MATERIALS CORP.	Palm Beach	593.2	2960.8	31.0	8.2	32.0	75	44.4	601	NO
0990042	FLORIDA POWER & LIGHT (PRV)	Palm Beach	593.3	2960.6	31.1	8.0	32.1	76	73,474.5	601	YES
0990325	ROYAL PALM MEMORIAL GARDENS, INC.	Palm Beach	593.4	2960.2	31.2	7.5	32.1	76	1.8	602	NO
0990305	NORTHWOOD FUNERAL HOME	Palm Beach	593.8	2960.1	31.6	7.4	32.5	77	2.6	609	NO
0990322	TREASURE COAST CREMATORY	Palm Beach	594.0	2941.0	31.8	-11.7	33.9	110	5.3	637	NO
0990095	BETHESDA MEMORIAL HOSPITAL	Palm Beach	592.6	2931.8	30.4	-20.9	36.9	124	8.5	697	NO
0990332	NEW HOPE POWER PARTNERSHIP	Palm Beach	524.9	2939.4	-37.3	-13.2	39.6	250	3,105.0	751	YES
0990614	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	540.5	2919.5	-21.7	-33.2	39.7	213	5.0	753	NO
0990005	OKEELANTA CORP	Palm Beach	524.7	2939.5	-37.5	-13.2	39.7	251	37.0	755	NO
0850102	INDIANTOWN COGENERATION, L.P.	Martin	547.7	2990.7	-14.6	38.0	40.7	339	2,554.3	775	YES
0990354	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	545.8	2912.8	-16.4	-39.9	43.1	202	3.8	823	NO
0850001	FLORIDA POWER & LIGHT (PMR)	Martin	542.7	2992.7	-19.5	40.0	44.5	334	65,800.7	850	YES
0990119	BOCA RATON COMMUNITY HOSPITAL	Palm Beach	589.5	2915.5	27.3	-37.2	46.1	144	4.0	882	NO
0110045	HARDRIVES ASPHALT COMPANY	Broward	583.8	2909.1	21.6	-43.5	48.6	154	87.6	932	NO
0112120	WHEELABRATOR NORTH BROWARD, INC.	Broward	583.9	2907.6	21.7	-45.1	50.0	154	430.5	960	NO
0990615	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	519.1	2923.8	-43.1	-28.9	51.9	236	5.0	998	NO
0112048	BROWARD CO. ANIMAL CARE AND REGULATION	Broward	584.0	2905.5	21.8	-47.1	51.9	155	2.6	999	NO
Beyond Screening Area out to 100 km [d]											
0112357	BROWARD COUNTY WATER & SEWER SERVICES	Broward	583.5	2905.0	21.3	-47.6	52.2	156	5.9	1,004	NO
0110038	OLDCASTLE RETAIL, INC.	Broward	586.2	2904.6	24.0	-48.1	53.7	153	95.0	1,034	NO
0510003	U.S. SUGAR CORP. CLEWISTON MILL	Hendry	506.1	2956.9	-56.1	4.2	56.3	274	1,571.3	1,085	YES
0110351	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Broward	522.3	2912.3	-39.9	-40.4	56.8	225	20.6	1,096	NO
0111019	HOLY CROSS HOSPITAL	Broward	587.1	2896.5	24.9	-56.1	61.4	156	22.8	1,188	NO
0112410	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Broward	[illegible]	2882.4	-7.1	-70.2	70.6	186	49.0	1,371	NO
0112119	WHEELABRATOR SOUTH BROWARD, INC	Broward	[illegible]	2883.4	[illegible]	-69.3	71.2	166	462.0	1,385	NO
0110037	FLORIDA POWER & LIGHT (PFL)	Broward	[illegible]	[illegible]	[illegible]	-69.3	71.4	166	3,297.6	1,388	YES
0110036	FLORIDA POWER & LIGHT (PPE)	Broward	[illegible]	2885.3	[illegible]	-67.4	71.9	159	151,768.0	1,398	YES

TABLE 6-3
SUMMARY OF THE SO_2 FACILITIES CONSIDERED FOR INCLUSION IN THE AAQS AND PSD CLASS II AIR MODELING ANALYSES

AIRS Number	Facility	County	UTM Coordinates East (km)	UTM Coordinates North (km)	Relative to WCEC [a] X (km)	Y (km)	Distance (km)	Direction (deg)	Maximum SO_2 Emissions (TPY)	Q, (TPY) Emission Threshold [b,c] (Dist - SID) x 20	Include in Modeling Analysis ?
7775212	WEEKLEY ASPHALT PAVING, INC.		557.3	2880.6	-4.9	-72.1	72.2	184	59.6	1,404	NO
0430008	ATLAS-TRANSOIL INC	Glades	489.2	2966.6	-73.0	13.9	74.3	281	46.7	1,446	NO
0930109	BP TECHNOLOGY INC	Okeechobee	525.2	3017.4	-37.0	64.7	74.6	330	15.8	1,452	NO
0510015	SOUTHERN GARDENS CITRUS PROCESSING CORP.	Hendry	487.5	2957.6	-74.7	4.9	74.9	274	491.3	1,457	NO
1110004	TROPICANA MANFACTURING COMPANY, INC	Broward	559.6	3028.3	-2.6	75.7	75.7	358	106.2	1,474	NO
1110121	FLORIDA MUNICIPAL POWER AGENCY	Broward	561.5	3029.0	-0.7	76.3	76.3	359	169.5	1,487	NO
0930001	OKEECHOBEE ASPHALT & READY-MIX CONCRETE,	Okeechobee	516.1	3014.2	-46.1	61.6	76.9	323	104.7	1,498	NO
1110040	RANGER CONSTRUCTION INDUSTRIES, INC.	Broward	561.7	3030.2	-0.5	77.5	77.5	360	222.4	1,510	NO
1110010	DICKERSON FLORIDA, INC	Broward	562.2	3030.4	0.0	77.7	77.7	0	83.4	1,514	NO
0250252	COMMUNITY ASPHALT CORPORATION	Dade	557.0	2869.3	-5.2	-83.4	83.5	184	70.6	1,630	NO
1110003	FT PIERCE UTILITIES AUTHORITY	Broward	566.1	3036.4	3.9	83.7	83.8	3	3,125.9	1,636	YES
1110107	TREASURE COAST LAND CLEARING	Broward	545.7	3035.2	-16.5	82.5	84.2	349	15.0	1,644	NO
0250624	GENERAL ASPHALT CO., INC.	Dade	569.7	2868.3	7.5	-84.3	84.7	175	124.4	1,653	NO
0250615	WASTE MANAGEMENT INC. OF FLORIDA	Dade	565.0	2860.0	2.8	-92.6	92.7	178	249.0	1,814	NO
0250022	U S FOUNDRY MANUFACTURING CORP.	Dade	567.3	2859.8	5.1	-92.9	93.0	177	20.0	1,820	NO
0250348	MIAMI DADE RRF	Dade	563.8	2857.6	1.6	-95.0	95.0	179	856.8	1,861	NO
0210031	BREITBURN FLORIDA, LLC	Collier	509.6	2873.2	-52.6	-79.5	95.3	214	32.0	1,866	NO
0250753	MIAMI DADE WATER AND SEWER DEPT	Dade	557.8	2856.6	-4.4	-96.1	96.2	183	92.0	1,884	NO
0250281	MIAMI-DADE WATER AND SEWER DEPARTMENT	Dade	570.7	2856.8	8.5	-95.9	96.3	175	117.1	1,885	NO
0610021	OCEAN SPRAY CRANBERRIES	Indian River	550.6	3051.3	-11.6	98.6	99.3	353	28.3	1,946	NO
0250014	RINKER MATERIALS CORPORATION.	Dade	557.5	2852.1	-4.7	-100.6	100.7	183	1,340.0	1,974	YES
0610029	CITY OF VERO BEACH	Indian River	561.4	3056.5	-0.8	103.8	103.8	360	10,274.2	2,037	YES

Note: NA = Not applicable, ND = No data, SID = Significant impact distance for the project

[a] West County Unit 3 East and North Coordinates (km) are: 562.202 2952.65

[b] The significant impact distance for the project is estimated to be: 2 km

[c] Based on the North Carolina Screening Threshold method, a background facility is included in the modeling analysis if the facility is beyond the modeling area and its emission rate is greater than the product of (Distance-SID) x 20.

[d] "Modeling Area" is the area in which the project is predicted to have a significant impact. EPA recommends that all sources within this area be modeled.

"Screening Area" is the significant distance of 2 km plus 50 km beyond the modeling area. EPA recommends that sources be modeled that are expected to have a significant impact in the modeling area. "Beyond Screening Area out to 100 km" is the area beyond the screening area and out to 100 km in which large sources are included in the modeling.

TABLE 6-4
SUMMARY OF THE PM_{10} FACILITIES CONSIDERED FOR INCLUSION IN THE AAQS AND PSD CLASS II AIR MODELING ANALYSES

AIRS Number	Facility	County	UTM Coordinates East (km)	UTM Coordinates North (km)	Relative to WCEC[a] X (km)	Relative to WCEC[a] Y (km)	Relative to WCEC[a] Distance (km)	Relative to WCEC[a] Direction (deg)	Maximum PM_{10} Emissions (TPY)	Q, (TPY) Emission Threshold[b,c] (Dist - SID) x 20	Include in Modeling Analysis ?
Modeling Area[d]											
0990646	FPL West County Energy Center (WCEC)	Palm Beach	562.2	2953.0	0.0	0.4	0.4	358	438.4	SIA	YES
0990530	HUBBARD CONSTRUCTION COMPANY	Palm Beach	562.8	2952.0	0.6	-0.7	0.9	139	8.4	SIA	YES
0990348	PALM BEACH AGGREGATES, INC.	Palm Beach	563.0	2952.0	0.8	-0.7	1.0	129	20.6	SIA	YES
0990349	SFWMD Pump Station S-5A	Palm Beach	562.6	2951.3	0.3	-1.3	1.4	165	3.9	SIA	YES
Screening Area[d]											
0990620	SFWMD Pump Station S-319	Palm Beach	566.3	2951.2	4.1	-1.4	4.3	109	8.9	47	YES
0990621	SOUTH FLORIDA WATER MANANGEMENT DISTRICT	Palm Beach	567.2	2945.0	5.0	-7.7	9.2	147	9.2	143	NO
0990011	SEM-CHI RICE PRODUCTS CORP	Palm Beach	553.4	2949.5	-8.8	-3.2	9.3	250	2.0	147	NO
0990016	ATLANTIC SUGAR ASSOCIATION	Palm Beach	552.9	2945.2	-9.3	-7.5	11.9	231	817.5	198	YES
0990549	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	554.2	2940.5	-8.0	-12.2	14.6	213	14.5	252	NO
0990087	RANGER CONSTRUCTION INDUSTRIES, INC.	Palm Beach	579.9	2951.7	17.7	-1.0	17.7	93	28.8	314	NO
0990091	RINKER MATERIALS (CEN-CON, WPB)	Palm Beach	580.3	2951.2	18.1	-1.5	18.2	95	5.2	324	NO
0990310	COMMUNITY ASPHALT CORP	Palm Beach	582.3	2950.8	20.1	-1.9	20.2	95	128.2	364	NO
7775057	CRUSHER CONTRACTORS CO.		582.5	2951.2	20.3	-1.4	20.4	94	8.0	367	NO
0990562	SOUTH FLORIDA SHAVINGS CO.	Palm Beach	579.2	2941.1	17.0	-11.6	20.6	124	11.4	371	NO
0990122	MASCHMEYER CONCRETE (WEST PALM BEACH)	Palm Beach	583.0	2952.4	20.8	-0.3	20.8	91	82.3	376	NO
0990146	TRI-COUNTY CONCRETE PRODUCTS	Palm Beach	583.9	2953.9	21.7	1.2	21.7	87	2.0	395	NO
0990333	FLORIDA GAS TRANSMISSION COMPANY	Palm Beach	584.4	2957.1	22.2	4.4	22.6	79	6.0	412	NO
0990185	SIKORSKY AIRCRAFT CORPORATION	Palm Beach	567.5	2975.0	5.3	22.3	23.0	13	4.6	419	NO
0990019	OSCEOLA FARMS	Palm Beach	544.2	2968.0	-18.0	15.3	23.7	310	616.7	433	YES
0990234	SOLID WASTE AUTHORITY OF PBC	Palm Beach	584.5	2961.3	22.3	8.6	23.9	69	286.5	438	NO
0990021	UNITED TECHNOLOGIES CORPORATION	Palm Beach	568.4	2975.8	6.2	23.2	24.0	15	239.0	440	NO
0990350	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	556.2	2927.8	-6.0	-24.8	25.6	194	14.4	471	NO
0990188	ANIMAL RESCUE LEAGUE	Palm Beach	588.6	2956.0	26.4	3.3	26.6	83	1.4	492	NO
0990344	PARKWAY ASPHALT, INC.	Palm Beach	587.4	2962.1	25.2	9.5	26.9	69	15.4	498	NO
0990026	SUGAR CANE GROWERS CO-OP	Palm Beach	534.9	2953.3	-27.3	0.6	27.3	271	1,724.4	506	YES
0990123	FLORIDA POWER & LIGHT (PDC/OSF)	Palm Beach	589.7	2961.2	27.5	8.5	28.8	73	11.5	536	NO
0990061	U.S.SUGAR CORP. BRYANT MILL	Palm Beach	537.8	2969.1	-24.4	16.5	29.4	304	906.3	548	YES
0990120	RINKER MATERIALS (RIVIERA BEACH)	Palm Beach	591.2	2960.2	29.0	7.5	30.0	75	3.4	559	NO
0990612	HEADWATERS RESOURCES, INC	Palm Beach	591.4	2960.6	29.2	8.0	30.3	75	1.9	565	NO
0990127	TARMAC AMERICA	Palm Beach	591.6	2960.3	29.4	7.6	30.4	75	13.1	568	NO
0990109	RINKER MATERIALS (LAKE WORTH)	Palm Beach	592.6	2945.1	30.4	-7.6	31.3	104	156.0	587	NO
0990045	CITY OF LAKE WORTH UTILITIES	Palm Beach	592.8	2943.7	30.6	-9.0	31.9	106	1,753.5	598	YES
0990025	RINKER MATERIALS (LAKE PARK)	Palm Beach	591.9	2964.5	29.7	11.8	32.0	68	11.4	599	NO
0990630	SOUTH FLORIDA MATERIALS CORP.	Palm Beach	593.2	2960.8	31.0	8.2	32.0	75	15.4	601	NO
0990042	FLORIDA POWER & LIGHT (PRV)	Palm Beach	593.3	2960.6	31.1	8.0	32.1	76	6,679.5	601	YES
0990325	ROYAL PALM MEMORIAL GARDENS, INC.	Palm Beach	593.4	2960.2	31.2	7.5	32.1	76	2.3	602	NO
0990305	NORTHWOOD FUNERAL HOME	Palm Beach	593.8	2960.1	31.6	7.4	32.5	77	4.6	609	NO
0990046	CEMEX, INC.	Palm Beach	594.0	2960.7	31.8	8.0	32.8	76	3.8	616	NO
0990322	TREASURE COAST CREMATORY	Palm Beach	594.0	2941.0	31.8	-11.7	33.9	110	5.3	637	NO
0990095	BETHESDA MEMORIAL HOSPITAL	Palm Beach	592.6	2931.8	30.4	-20.9	36.9	124	5.9	697	NO
0990094	CONTINENTALFLORIDA MATERIALS INC.	Palm Beach	590.3	2927.0	28.1	-25.7	38.0	132	150.7	721	NO
0850009	RINKER MATERIALS INDIANTOWN	Martin	550.3	2989.9	-11.9	37.3	39.1	342	30.0	742	NO
0990332	NEW HOPE POWER PARTNERSHIP	Palm Beach	524.9	2939.4	-37.3	-13.2	39.6	250	1,035.0	751	YES
0990614	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	540.5	2919.5	-21.7	-33.2	39.7	213	20.7	753	NO
0990005	OKEELANTA CORP	Palm Beach	524.7	2939.5	-37.5	-13.2	39.7	251	154.8	755	NO
0990328	HARDRIVES ASPHALT COMPANY	Palm Beach	590.6	2923.5	28.4	-29.2	40.7	136	12.7	774	NO
0850102	INDIANTOWN COGENERATION, L.P.	Martin	547.7	2990.7	-14.6	38.0	40.7	339	290.7	775	NO

TABLE 6-4
SUMMARY OF THE PM_{10} FACILITIES CONSIDERED FOR INCLUSION IN THE AAQS AND PSD CLASS II AIR MODELING ANALYSES

AIRS Number	Facility	County	UTM Coordinates East (km)	UTM Coordinates North (km)	Relative to WCEC [a] X (km)	Relative to WCEC [a] Y (km)	Relative to WCEC [a] Distance (km)	Relative to WCEC [a] Direction (deg)	Maximum PM_{10} Emissions (TPY)	Q, (TPY) Emission Threshold [b,c] (Dist - SID) x 20	Include in Modeling Analysis ?
0990129	TARMAC FLORIDA (DELRAY BEACH)	Palm Beach	592.3	2924.8	30.1	-27.9	41.0	133	169.3	780	NO
0850002	LOUIS DREYFUS CITRUS, INC.	Martin	548.0	2991.5	-14.2	38.8	41.3	340	84.8	787	NO
0850012	BAY STATE MILLING CO	Martin	547.4	2991.7	-14.8	39.0	41.7	339	93.5	795	NO
0990354	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	545.8	2912.8	-16.4	-39.9	43.1	202	7.8	823	NO
0850141	GULFSTREAM NATURAL GAS SYSTEM, L.L.C.	Martin	543.8	2993.1	-18.4	40.5	44.5	336	1.4	849	NO
0850001	FLORIDA POWER & LIGHT (PMR)	Martin	542.7	2992.7	-19.5	40.0	44.5	334	17,540.5	850	YES
0850019	HANSON ROOF TILE, INC.	Martin	583.7	2991.7	21.5	39.0	44.6	29	8.1	851	NO
0990023	RINKER MATERIALS (BOCA RATON)	Palm Beach	589.4	2915.7	27.2	-37.0	45.9	144	13.6	878	NO
0990119	BOCA RATON COMMUNITY HOSPITAL	Palm Beach	589.5	2915.5	27.3	-37.2	46.1	144	2.5	882	NO
0990107	MONIER ROOF TILE	Palm Beach	591.2	2916.8	29.0	-35.9	46.1	141	4.0	882	NO
0112061	FLORIDA ROCK INDUSTRIES INC.	Broward	584.7	2910.4	22.5	-42.3	47.9	152	4.8	917	NO
0110045	HARDRIVES ASPHALT COMPANY	Broward	583.8	2909.1	21.6	-43.5	48.6	154	96.5	932	NO
0990015	BOCA RESORTS, INC	Palm Beach	592.0	2913.7	29.8	-39.0	49.0	143	3.3	941	NO
0111024	HANSON ROOF TILE INC	Broward	585.5	2908.9	23.3	-43.8	49.6	152	10.4	951	NO
0112120	WHEELABRATOR NORTH BROWARD, INC.	Broward	583.9	2907.6	21.7	-45.1	50.0	154	296.8	960	NO
0110017	PRE-CAST SPECIALTIES, INC	Broward	586.5	2907.2	24.3	-45.5	51.5	152	1.7	991	NO
0990615	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	519.1	2923.8	-43.1	-28.9	51.9	236	20.6	998	NO
Beyond Screening Area out to 100 km [d]											
0112115	HANSON PAVER PRODUCTS, INC.	Broward	585.2	2904.4	23.0	-48.3	53.5	155	6.6	1,029	NO
0110038	OLDCASTLE RETAIL, INC.	Broward	586.2	2904.6	24.0	-48.1	53.7	153	115.6	1,034	NO
0110009	RINKER MATERIALS OF FLORIDA, INC.	Broward	586.0	2904.3	23.8	-48.4	53.9	154	3.0	1,038	NO
0850004	TARMAC FLORIDA, INC.	Martin	575.3	3006.0	13.0	53.3	54.9	14	16.6	1,058	NO
0510003	U.S. SUGAR CORP. CLEWISTON MILL	Hendry	506.1	2956.9	-56.1	4.2	56.3	274	1,099.4	1,085	YES
0110351	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Broward	522.3	2912.3	-39.9	-40.4	56.8	225	46.1	1,096	NO
0110030	TARMAC FLORIDA	Broward	589.1	2901.2	26.9	-51.5	58.1	152	12.4	1,121	NO
0111013	MODERN CONCRETE PRODUCTS, INC.	Broward	584.0	2897.5	21.8	-55.2	59.3	158	14.3	1,146	NO
0111019	HOLY CROSS HOSPITAL	Broward	587.1	2896.5	24.9	-56.1	61.4	156	22.8	1,188	NO
0112074	TRANSFLO TERMINAL SERVICES, INC. (TTSI)	Broward	583.3	2887.8	21.1	-64.9	68.2	162	27.0	1,324	NO
0112410	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Broward	555.1	2882.4	-7.1	-70.2	70.6	186	10.0	1,371	NO
0112119	WHEELABRATOR SOUTH BROWARD, INC	Broward	578.9	2883.4	16.7	-69.3	71.2	166	309.7	1,385	NO
0110037	FLORIDA POWER & LIGHT (PFL)	Broward	579.4	2883.4	17.2	-69.3	71.4	166	2,028.2	1,388	YES
7775172	BETTER ROADS, INC.	Glades	492.0	2966.0	-70.2	13.4	71.5	281	21.5	1,390	NO
0110032	RINKER MATERIALS CORP	Broward	587.2	2885.6	25.0	-67.1	71.6	160	157.7	1,391	NO
0110036	FLORIDA POWER & LIGHT (PPE)	Broward	587.4	2885.3	25.2	-67.4	71.9	159	34,490.0	1,398	YES
0111012	CONTINENTAL FLORIDA MATERIALS, INC.	Broward	588.0	2885.4	25.8	-67.3	72.0	159	512.3	1,401	NO
0430008	ATLAS-TRANSOIL INC	Glades	489.2	2966.6	-73.0	13.9	74.3	281	20.9	1,446	NO
0510022	FIBERSTAR, INC.	Hendry	487.7	2957.7	-74.5	5.0	74.7	274	345.2	1,454	NO
0510015	SOUTHERN GARDENS CITRUS PROCESSING CORP.	Hendry	487.5	2957.6	-74.7	4.9	74.9	274	426.6	1,457	NO
1110004	TROPICANA MANFACTURING COMPANY, INC	Broward	559.6	3028.3	-2.6	75.7	75.7	358	251.0	1,474	NO
1110121	FLORIDA MUNICIPAL POWER AGENCY	Broward	561.5	3029.0	-0.7	76.3	76.3	359	516.6	1,487	NO
1110040	RANGER CONSTRUCTION INDUSTRIES, INC.	Broward	561.7	3030.2	-0.5	77.5	77.5	360	52.0	1,510	NO
0930104	OKEECHOBEE LANDFILL, INC.	Okeechobee	530.3	3024.0	-31.9	71.3	78.1	336	16.6	1,523	NO
1110060	FLORIDA GAS TRANSMISSION COMPANY	Broward	557.2	3035.8	-5.0	83.1	83.3	357	17.7	1,625	NO
1110003	FT PIERCE UTILITIES AUTHORITY	Broward	566.1	3036.4	3.9	83.7	83.8	3	460.7	1,636	NO
0250258	WHITE ROCK QUARRIES	Dade	560.0	2868.8	-2.2	-83.9	83.9	182	116.0	1,638	NO
0250374	TARMAC FLORIDA INC	Dade	579.5	2868.1	17.3	-84.6	86.3	168	148.9	1,686	NO
0250659	RINKER MATERIALS OF FLORIDA, INC.	Dade	558.5	2864.6	-3.7	-88.1	88.2	182	43.4	1,723	NO
0250530	TRADEMARK METALS RECYCLING	Dade	574.4	2864.1	12.2	-88.6	89.4	172	60.7	1,748	NO
0250020	TARMAC AMERICA LLC	Dade	562.3	2861.7	0.1	-91.0	91.0	180	589.3	1,779	NO
0250507	SOUTH FLORIDA CONCRETE & READY MIX #2	Dade	564.2	2860.9	2.0	-91.8	91.8	179	36.0	1,796	NO
0250022	U S FOUNDRY MANUFACTURING CORP.	Dade	567.3	2859.8	5.1	-92.9	93.0	177	15.3	1,820	NO

TABLE 6-4

SUMMARY OF THE PM_{10} FACILITIES CONSIDERED FOR INCLUSION IN THE AAQS AND PSD CLASS II AIR MODELING ANALYSES

AIRS Number	Facility	County	UTM Coordinates East (km)	UTM Coordinates North (km)	Relative to WCEC [a] X (km)	Relative to WCEC [a] Y (km)	Distance (km)	Direction (deg)	Maximum PM_{10} Emissions (TPY)	Q, (TPY) Emission Threshold [b,c] (Dist - SID) x 20	Include in Modeling Analysis ?
0250348	MIAMI DADE RRF	Dade	563.8	2857.6	1.6	-95.0	95.0	179	232.8	1,861	NO
0210031	BREITBURN FLORIDA, LLC	Collier	509.6	2873.2	-52.6	-79.5	95.3	214	10.8	1,866	NO
0250281	MIAMI-DADE WATER AND SEWER DEPARTMENT	Dade	570.7	2856.8	8.5	-95.9	96.3	175	70.3	1,885	NO
7770010	PAN AMERICAN CONSTRUCTION-APAC FLORIDA	Miami-Dade	560.5	2854.9	-1.7	-97.8	97.8	181	60.0	1,915	NO
0250534	FPT FLORIDA LLC	Dade	574.4	2854.2	12.2	-98.5	99.2	173	10.2	1,944	NO
0610021	OCEAN SPRAY CRANBERRIES	Indian River	550.6	3051.3	-11.6	98.6	99.3	353	129.1	1,946	NO
0250006	FLORIDA ROCK INDUSTRIES,INC.	Dade	561.1	2853.2	-1.1	-99.5	99.5	181	142.7	1,949	NO
0250014	RINKER MATERIALS CORPORATION.	Dade	557.5	2852.1	-4.7	-100.6	100.7	183	660.4	1,974	NO
0610029	CITY OF VERO BEACH	Indian River	561.4	3056.5	-0.8	103.8	103.8	360	1,787.7	2,037	YES

Note: NA = Not applicable, ND = No data, SID = Significant impact distance for the project

[a] West County Unit 3 East and North Coordinates (km) are: 562.202 2952.65

[b] The significant impact distance for the project is estimated to be: 2 km

[c] Based on the North Carolina Screening Threshold method, a background facility is included in the modeling analysis if the facility is beyond the modeling area and its emission rate is greater than the product of (Distance-SID) x 20.

[d] "Modeling Area" is the area in which the project is predicted to have a significant impact. EPA recommends that all sources within this area be modeled.
"Screening Area" is the significant distance of 2 km plus 50 km beyond the modeling area. EPA recommends that sources be modeled that are expected to have a significant impact in the modeling area. "Beyond Screening Area out to 100 km" is the area beyond the screening area and out to 100 km in which large sources are included in the modeling.

TABLE 6-5
PROJECT BUILDING DIMENSIONS USED IN THE WCEC UNIT 3 PROJECT MODELING ANALYSIS

Stucture	Height		Length		Width	
	ft	m	ft	m	ft	m
Unit 3						
HRSG A	103	31.4	140	42.5	35	10.8
Air Intake A	88	26.8	74	22.6	52	15.8
HRSG B	103	31.4	140	42.5	35	10.8
Air Intake B	88	26.8	74	22.6	52	15.8
HRSG C	103	31.4	140	42.5	35	10.8
Air Intake C	88	26.8	74	22.6	52	15.9
Cooling Tower	49	14.9	703	214.4	108	33.0

TABLE 6-6
MAXIMUM POLLUTANT CONCENTRATIONS PREDICTED FOR WCEC UNIT 3
BY OPERATING LOAD AND AIR INLET TEMPERATURE

Pollutant	Averaging Time	100% Load 35°F	100% Load 59°F	100% Load 95°F	75% Load 35°F	75% Load 59°F	75% Load 95°F
Natural Gas Operation [b]							
SO_2	Annual	0.570	0.574	0.577	0.485	0.461	0.444
	24-Hour	6.10	6.10	6.20	5.19	4.89	4.64
	3-Hour	9.9	9.98	9.96	8.21	7.70	7.24
PM_{10}	Annual	0.371	0.367	0.376	0.243	0.246	0.251
	24-Hour	3.97	3.91	4.04	2.60	2.61	2.62
NO_2	Annual	0.821	0.826	0.833	0.656	0.652	0.650
CO	8-Hour	27.7	27.8	28.4	29.5	29.2	28.7
	1-Hour	39.1	38.1	36.5	37.3	36.8	36.2
Fuel Oil Operation							
SO_2	Annual	0.0524	0.0525	0.0527	0.0437	0.0441	0.0443
	24-Hour	0.609	0.607	0.616	0.504	0.510	0.520
	3-Hour	1.65	1.61	1.55	1.33	1.31	1.26
PM_{10}	Annual	0.553	0.554	0.558	0.573	0.584	0.578
	24-Hour	6.42	6.41	6.52	6.61	6.74	6.79
NO_2	Annual	1.144	1.161	1.181	0.903	0.915	0.910
CO	8-Hour	17.0	16.8	16.3	13.6	13.5	13.0
	1-Hour	24.2	24.0	23.3	19.5	19.3	18.6

Note: NA = not applicable

[a] Concentrations are based on highest concentrations predicted using five years of meteorological data from 2001 to 2005 of surface and upper air data from the National Weather Service stations at Palm Beach International Airport and Miami, respectively.

[b] Duct firing included for 100 % operating load. Duct firing based on natural gas-fired duct burner with maximum heat input rate of 475 MMBtu/hr (HHV).

TABLE 6-7
MAXIMUM POLLUTANT CONCENTRATIONS PREDICTED FOR WCEC UNIT 3 PROJECT
COMPARED TO EPA CLASS II SIGNIFICANT IMPACT LEVELS

Pollutant	Averaging Time	Concentration (ug/m^3) Natural Gas	Fuel Oil	Maximum	EPA Class II Significant Impact Levels (ug/m^3)
CTs Only [a]					
SO_2	Annual	0.58	0.05	0.58	1
	24-Hour	6.20	0.62	6.20	5
	3-Hour	9.98	1.65	9.98	25
PM_{10}	Annual	0.38	0.58	0.39	1
	24-Hour	4.04	6.79	6.79	5
NO_2	Annual [c]	0.62	0.89	0.64	1
CO	8-Hour	29.5	17.0	29.5	500
	1-Hour	39.1	24.2	39.1	2,000
CTs and Fuel Heater [b]					
SO_2	Annual	0.58	NM	0.58	1
	24-Hour	6.20	NM	6.20	5
	3-Hour	9.96	NM	9.96	25
NO_2	Annual [c]	NM	NM	0.94	1
CTs, Fuel Heater and Cooling Tower					
PM_{10}	Annual	NM	0.63	0.63	1
	24-Hour	NM	7.00	7.00	5

[a] Maximum annual average concentrations are based on prorating the maximum impacts for each operation by the following maximum number of hours requested for that operation:

Pollutant	Hours for Each Operation: Combined Cycle Natural Gas with Duct-Firing	Combined Cycle Fuel Oil	Total
SO_2	8,760	0	8,760
PM_{10}	8,260	500	8,760
NO_2	8,260	500	8,760

[b] Maximum annual average concentrations are based on same assumptions as footnote [a] except NO_2 impacts includes CTs firing natural gas for 8,260 hours/year, with 2,880 hours/year of duct-firing, and firing oil for 500 hours.

[c] NO_x to NO_2 conversion factor based on EPA Modeling Guidelines: 75 %.

Note: NM = Not Modeled.

TABLE 6-8
SUMMARY OF MAXIMUM POLLUTANT CONCENTRATIONS PREDICTED FOR WCEC UNIT 3
COMPARED TO THE EPA CLASS I SIGNIFICANT IMPACT LEVELS AT THE PSD CLASS I AREA OF THE EVERGLADES NATIONAL PARK

Pollutant	Averaging Time	Maximum Predicted Concentration ($\mu g/m^3$) [a]							EPA Class I Significant Impact Levels ($\mu g/m^3$)
		Natural Gas [b]			Fuel Oil [c]				
		2001	2002	2003	2001	2002	2003	Maximum [d]	
SO_2	Annual	0.0016	0.0019	0.0022	0.0003	0.0003	0.0003	0.0022	0.1
	24-Hour	0.042	0.041	0.043	0.007	0.007	0.008	0.04	0.2
	3-Hour	0.16	0.13	0.14	0.029	0.020	0.025	0.16	1.0
PM_{10}	Annual	0.0008	0.0010	0.0012	0.0033	0.0037	0.0041	0.0012	0.2
	24-Hour	0.020	0.020	0.024	0.081	0.086	0.10	0.10	0.3
NO_2	Annual	0.0014	0.0016	0.0018	0.0032	0.0032	0.0033	0.0018	0.1

[a] Based on the CALPUFF model using 2001, 2002, and 2003 surface and upper air meteorological data.

[b] Based on 100 % operating load.with duct firing at 35 °F. Duct firing based on natural gas-fired duct burner with maximum heat input rate of 475 MMBtu/hr (HHV) for the CTs.

[c] Based on 100 % operating load at 35 °F.

[d] Maximum annual average concentration are based on prorating the maximum impacts for each operation by the following maximum number of hours requested for that operation:

Pollutant	Hours for Each Operation		
	Natural Gas	Fuel Oil	Total
SO_2	8,760	0	8,760
PM_{10}	8,260	500	8,760
NO_2	8,260	500	8,760

TABLE 6-9
MAXIMUM PREDICTED 24-HOUR AVERAGE SO_2 AND PM_{10} IMPACTS
COMPARED TO THE AAQS
SCREENING AND REFINED ANALYSES

Averaging Time and Rank	Analysis	Maximum Concentration (µg/m³) [a] Total	Modeled Sources	Background	Receptor Location UTM- East (m)	UTM- North (m)	Time Period (YYMMDDHH)	AAQS (µg/m³)
RECEPTORS: ALL								
SOURCES: ALL, EXCEPT HUBBARD CONSTRUCTION AND PALM BEACH AGGREGATES								
SO_2 [b]								
24-Hour, HSH	Screening	27.1	19.1	8	562,785	2,951,566	01021524	260
		31.7	23.7	8	561,150	2,952,900	02101324	
		31.8	23.8	8	561,150	2,951,700	03112224	
		28.8	20.8	8	562,785	2,951,566	04091624	
		28.6	20.6	8	562,785	2,951,566	05060224	
	Refined	31.8	23.8	8	561,150	2,951,700	03112224	
PM_{10} [c]								
24-Hour, H6H	Screening	68.5	26.5	42	562,750	2,951,400	04030324	150
	Refined	68.5	26.5	42	562,750	2,951,400	04030324	
RECEPTORS: ALL, EXCEPT NONE ON PALM BEACH AGGREGATES' PROPERTY								
SOURCES: ALL								
SO_2 [b]								
24-Hour, HSH	Screening	43.2	35.2	8	562,276	2,951,842	01020824	260
		39.4	31.4	8	562,277	2,951,890	02120824	
		41.9	33.9	8	562,276	2,951,842	03041524	
		41.7	33.7	8	562,276	2,951,842	04010824	
		44.1	36.1	8	562,277	2,951,890	05010424	
	Refined	44.1	36.1	8	562,277	2,951,890	05010424	
PM_{10} [c]								
24-Hour, H6H	Screening	79.1	37.1	42	562,929	2,951,560	02112424	150
	Refined	79.1	37.1	42	562,929	2,951,560	02112424	

N YYMMDDHH = Year, Month, Day, Hour Ending
H6H = Highest, sixth-highest
HSH = Highest, second-highest

[a] Concentrations are based on concentrations predicted using five years of meteorological data from 2001 to 2005 of surface and upper air data from the National Weather Service stations at Palm Beach International Airport and Miami, respectively.

[b] Based on firing natural gas with duct firing.

[c] Based on oil-firing.

TABLE 6-10
MAXIMUM PREDICTED 24-HOUR AVERAGE SO_2 AND PM_{10} IMPACTS
COMPARED TO THE PSD CLASS II INCREMENTS
SCREENING AND REFINED ANALYSES

Averaging Time and Rank	Analysis	Modeled Concentration [a] (μg/m³)	Receptor Location UTM- East (m)	Receptor Location UTM- North (m)	Time Period (YYMMDDHH)	PSD Class II Increment (μg/m³)
RECEPTORS: ALL						
SOURCES: ALL, EXCEPT HUBBARD CONSTRUCTION AND PALM BEACH AGGREGATES						
SO_2 [b]						
24-Hour, HSH	Screening	8.5	562,350	2,952,100	01020524	91
		11.5	561,750	2,953,000	02103124	
		8.4	561,150	2,952,300	03011324	
		10.1	562,348	2,953,929	04090524	
		7.6	561,978	2,953,590	05031924	
	Refined	11.5	561,750	2,953,000	02103124	
PM_{10} [c]						
24-Hour, HSH	Screening	9.1	561,250	2,952,600	01110124	30
		6.8	562,750	2,951,400	02081624	
		7.4	562,850	2,951,300	03112924	
		9.9	562,450	2,953,900	04092624	
		8.3	562,850	2,951,300	05011824	
	Refined	9.9	562,450	2,953,900	04092624	
RECEPTORS: ALL, EXCEPT NONE ON PALM BEACH AGGREGATES' PROPERTY						
SOURCES: ALL						
SO_2 [b]						
24-Hour, HSH	Screening	28.6	562,278	2,951,987	01101224	91
		23.1	562,278	2,951,988	02051224	
		24.6	562,278	2,951,987	03102524	
		25.4	562,278	2,951,988	04051324	
		26.6	562,278	2,951,938	05010124	
	Refined	28.6	562,278	2,951,987	01101224	
PM_{10} [c]						
24-Hour, HSH	Screening	24.6	562,929	2,951,560	01120324	30
		22.6	562,881	2,951,562	02112424	
		21.0	563,025	2,951,557	03012624	
		21.1	562,929	2,951,560	04112124	
		21.5	562,278	2,951,938	05110124	
	Refined	24.6	562,929	2,951,560	01120324	

Note: YYMMDDHH = Year, Month, Day, Hour Ending
H6H = Highest, sixth-highest
HSH = Highest, second-highest

[a] Concentrations are based on concentrations predicted using five years of meteorological data from 2001 to 2005 of surface and upper air data from the National Weather Service stations at Palm Beach International Airport and Miami, respectively.
[b] Based on firing natural gas with duct firing.
[c] Based on oil-firing.

7.0 ADDITIONAL IMPACT ANALYSIS

This section presents the impacts that the proposed Project will have on associated growth; impacts to vegetation, soils, and visibility in the vicinity of WCEC Unit 3; and impacts at the PSD Class I area of the Everglades NP related to AQRVs. Specifically, this section addresses FDEP Rules 62-212.400(4)(e), (8)(a) and (b), and (9) F.A.C. These rules are:

> (4) Source Information. (e) The air quality impacts, and the nature and extent of any or all general commercial, residential, industrial, and other growth which has occurred since August 7, 1977, in the area the source or modification would affect.
>
> (8) Additional Impact Analyses. (a) The owner or operator shall provide an analysis of the impairment to visibility, soils and vegetation that would occur as a result of the source or modification and general commercial, residential, industrial and other growth associated with the source or modification. The owner or operator need not provide an analysis of the impact on vegetation having no significant commercial or recreational value.
>
> (b) The owner or operator shall provide an analysis of the air quality impact projected for the area as a result of general commercial, residential, industrial and other growth associated with the source or modification.
>
> (9) Sources Impacting Federal Class I Areas. Sources impacting Federal Class I areas are subject to the additional requirements provided in 40 CFR 52.21(p), adopted by reference in Rule 62-204.800, F.A.C.

7.1 Historical Growth and Impacts Due to Associated Growth

7.1.1 Introduction

The general trends in residential, commercial, industrial, and other growth that has occurred in Palm Beach County since August 7, 1977 are presented in Subsections 7.1.2 through 7.1.4. Information is presented from a variety of available sources (i.e., Florida Statistical Abstract, FDEP, etc.) that characterize Palm Beach County as a whole. Information on air emissions and quality obtained from FDEP and EPA is presented in Subsection 7.1.5.

The growth analysis in Subsection 7.1.6 considered the air quality impacts due to emissions resulting from the industrial, commercial, and residential growth associated with the proposed construction and operation of the Project. The information and analysis is consistent with the EPA Guidance related to this requirement in the *Draft New Source Review Workshop Manual* (EPA, 1990).

The Site is located in the approximate geographic center of Palm Beach County, which is on Florida's highly urbanized Atlantic coast. Palm Beach County is bounded by Martin County to the north, Broward County to the south, and Hendry County to the west. Palm Beach County is the largest county in Florida in land area, comprising 1,974 square miles.

7.1.2 Residential Growth

7.1.2.1 *Population and Household Trends*

As an indicator of residential growth, the trends in the population and number of household units in Palm Beach County since 1977 are shown in Figure 7-1. The County experienced a 155-percent increase in population for the years 1977 through 2005. During this period, there was an increase in population of about 769,000. Similarly, the number of households in the County increased since 1977 by about 281,000, or 113 percent.

7.1.3 Commercial Growth

7.1.3.1 *Retail Trade and Wholesale Trade*

As an indicator of commercial growth in Palm Beach County, the trends in the number of commercial facilities and employees involved in retail and wholesale trade are presented in Figure 7-2. The retail trade sector comprises establishments engaged in retailing merchandise. The retailing process is the final step in the distribution of merchandise. Retailers are, therefore, organized to sell merchandise in small quantities to the general public. The wholesale trade sector comprises establishments engaged in wholesaling merchandise. This sector includes merchant wholesalers who buy and own the goods they sell; manufacturers' sales branches and offices that sell products manufactured domestically by their own company; and agents and brokers who collect a commission or fee for arranging the sale of merchandise owned by others.

Since 1977, retail trade in Palm Beach County has increased by 2,490 establishments and 33,928 employees or 89 and 95 percent, respectively. For the same period, wholesale trade has increased in the County by 2,435 establishments and 15,849 employees, or 422 and 336 percent, respectively.

7.1.3.2 *Labor Force*

The trend in the labor force in Palm Beach County since 1977 is shown in Figure 7-3. The sectors employing the largest number of persons in Palm Beach County have been in agriculture, services, and government. Between 1977 and 2000, approximately 412,547 persons were added to the available work force, for an increase of 234 percent.

7.1.3.3 *Tourism*

Another indicator of commercial growth in Palm Beach County is the tourism industry. As an indicator of tourism growth in the County, the trend in the number of hotels and motels and the number of units at the hotels and motels are presented in Figure 7-4.

This industry comprises establishments primarily engaged in marketing and promoting communities and facilities to businesses and leisure travelers through a range of activities, such as assisting organizations in locating meeting and convention sites; providing travel information on area attractions, lodging accommodations, restaurants; providing maps; and organizing group tours of local historical, recreational, and cultural attractions.

Between 1978 and 2006, there was a decrease in the number of hotels and motels in the County; however, there was a significant increase of 40 percent in the number of units at those facilities.

7.1.3.4 *Transportation*

As an indicator of transportation growth, the trend in the number of vehicle miles traveled (VMT) by motor vehicles on major roadways in Palm Beach County is presented in Figure 7-5.

The County's main arteries are Interstate 95 and the Florida Turnpike, which run north-south through the eastern section of the County. Other major highways in the County are U.S. Highways 441, 98, and 27. State and county highways in the County include State Roads A1A and 80 and County Roads 827 and 880.

Between 1977 and 2005, there was an increase of more than 14,000,000 VMT, or 95 percent, on major roadways in the County.

The existing commercial and transportation infrastructure should be adequate to provide any support services that might be required during construction and operation of WCEC Unit 3. The workforce needed to operate the proposed WCEC Unit 3 represents a small fraction of the labor force present in the immediate and surrounding areas.

7.1.4 Industrial Growth

7.1.4.1 *Manufacturing and Agricultural Industries*

As an indicator of industrial growth, the trend in the number of employees in the manufacturing industry in Palm Beach County since 1977 is shown in Figure 7-6. As shown, the manufacturing industry experienced a slight decrease in manufacturing employment from 1977 through 2005.

As another indicator of industrial growth, the trend in the number of employees in the agricultural industry, including sugar, in Palm Beach County since 1977 is also shown in Figure 7-6. As shown, the agricultural industry experienced an increase in employment of 329 percent from 1977 through 2005. This growth is primarily in the western portion of the County.

7.1.4.2 *Utilities*

Existing power plants in Palm Beach County include the following:

- FPL's Riviera Plant;
- Lake Worth Utilities; and
- FPL's WCEC (Units 1 and 2 under construction).

Together, these power plants will have an electrical generating capacity of about 3,200 MW when WCEC is operational.

As an indicator of electrical utility growth, the electrical generation capacity in Palm Beach County since 1977 is shown in Figure 7-7.

7.1.5 Air Quality Discussion

7.1.5.1 *Air Emissions and Spatial Distribution of Major Facilities*

Based on actual emissions reported for 1999 (latest year of available data) by EPA on its AIRSdata website, total emissions from stationary sources in the county are as follows:

- SO_2: 32,198 TPY
- PM_{10}: 2,112 TPY

- NO_x: 11,155 TPY
- CO: 6,515 TPY
- VOC: 2,557 TPY

7.1.5.2 *Air Emissions from Mobile Sources*

The trends in the air emissions of CO, VOC, and NO_x from mobile sources in Palm Beach County are presented in Figure 7-8. Between 1977 and 2005, there were significant decreases in these emissions. The decrease in CO, VOC, NO_x emissions were about 1,200, 87, and 31 tons per day (TPD), respectively, which represent decreases from 1977 emissions of 69, 71, and 29 percent, respectively.

7.1.5.3 *Air Monitoring Data*

Since 1977, Palm Beach County has been classified as attainment or maintenance for all criteria pollutants. Air quality monitoring data have been collected in Palm Beach County, primarily in the eastern portion of the county. For this evaluation, the air quality monitoring data collected at the monitoring station nearest to WCEC Unit 3 were used to assess air quality trends since 1977. Air quality monitoring data were based on the following monitoring stations:

- SO_2 concentrations – Riviera Beach, Belle Glade, and South Bay;
- PM_{10} concentrations – Belle Glade and Clewiston;
- NO_2 concentrations – West Palm Beach and Palm Beach;
- CO concentrations – West Palm Beach and Palm Beach; and
- O_3 concentrations – Royal Palm Beach.

Since 1988, PM in the form of PM_{10} has been collected at the air monitoring stations due to the promulgation of the PM_{10} AAQS. Prior to 1988, the AAQS for PM was in the form of total suspended particulates (TSP) concentrations, and this form was measured at the stations.

Data collected from these stations are considered to be generally representative of air quality in Palm Beach County. Because these monitoring stations are generally located in more urbanized areas than the WCEC Unit 3 area, the reported concentrations are likely to be somewhat higher than that experienced at the site.

These data indicate that the maximum air quality concentrations currently measured in the region comply with and are well below the applicable AAQS. These monitoring stations are located in areas where the highest concentrations of a measured pollutant are expected due to the combined effect of emissions from stationary and mobile sources, as well as the effects of meteorology. Therefore, the ambient concentrations in areas not monitored are expected to have pollutant concentrations less than the monitored concentrations from these sites.

7.1.5.4 *SO_2 Concentrations*

The trends in the annual, 24-hour, and 3-hour average SO_2 concentrations measured near the WCEC Unit 3 Site since 1977 are presented in Figures 7-9 through 7-11, respectively. SO_2 concentrations have been measured at three stations for various time periods throughout these years. As shown in these figures, concentrations have been and continue to be well below the AAQS.

7.1.5.5 *PM_{10}/TSP Concentrations*

The trends in the annual and 24-hour average PM_{10} and TSP concentrations since 1977 are presented in Figures 7-12 and 7-13, respectively. TSP concentrations are presented through 1988 since the AAQS was based on TSP concentrations through that year. In 1988, the TSP AAQS was revoked and the PM standard was revised to PM_{10}.

As shown in these figures, measured TSP concentrations were generally below the TSP AAQS. Since 1988, when PM_{10} concentrations have been measured, the PM_{10} concentrations have been and continue to be below the AAQS.

7.1.5.6 *NO_2 Concentrations*

The trends in the annual average NO_2 concentrations measured at the nearest monitors to the WCEC Unit 3 Site are presented in Figure 7-14. As shown in this figure, measured NO_2 concentrations have been well below the AAQS.

7.1.5.7 *CO Concentrations*

The trends in the 1- and 8-hour average CO concentrations since 1977 are presented in Figures 7-15 and 7-16, respectively. As shown in these figures, measured CO concentrations have been well below the AAQS.

7.1.5.8 *Ozone Concentrations*

The trends in the 1-hour average ozone concentrations since 1977 are presented in Figure 7-17. The 8-hour average ozone concentrations are presented in Figure 7-18. As shown in these figures, the measured ozone concentrations have been below the AAQS even in the more urbanized areas of Palm Beach County.

7.1.6 Impacts of Associated Growth

WCEC Unit 3 is needed to meet projected electric demands for FPL's customers. FPL has a statutory obligation to meet the projected increase in electric demand. The operation of WCEC Unit 3 is a direct result of the electric power demand and thus responds to growth that has occured in FPL's system.

Construction of WCEC Unit 3 will occur over a 24-month period requiring an average of approximately 350 workers during that time. It is anticipated that many of these construction personnel will commute to the Site. WCEC Unit 3 will employ a total of about 10 to 15 operational workers for the Project. The operational workforce will also include annual contracted maintenance workers to be hired for periodic routine services. The workforce needed to construct and operate the Project represents a small fraction of the population already present in the immediate area. Therefore, while there would be a small increase in vehicular traffic in the area, the effect on air quality levels would be minimal.

There are also expected to be no air quality impacts due to associated commercial and industrial growth given the location of WCEC Unit 3. The existing commercial and industrial infrastructure is adequate to provide any support services that WCEC Unit 3 might require, and would not increase with the operation of WCEC Unit 3. The addition of the Project will have little effect on the increase of growth in the area. The area to the west is expected to remain agricultural, the area to the south contains the Loxahatchee NWR, and the areas to the east have already been designated as areas for potential development.

The existing commercial and transportation infrastructure should be adequate to provide any support services that might be required during construction and operation of WCEC Unit 3. The workforce needed to operate the proposed WCEC Unit 3 represents a small fraction of the labor force present in the immediate and surrounding areas.

Since the PSD baseline date of August 7, 1977, there have been only a few major facilities built within a 35-km radius of the Site. The nearby minor sources that have been constructed since August 7, 1977 (Palm Beach Aggregates and Hubbard Construction) were evaluated and compliance was demonstrated. The SFWMD operates several pump stations, but these operate intermittently (5 percent of the time). There are a limited number of facilities located throughout the 50-km radius area surrounding the WCEC Unit 3 site.

The air quality data measured in the region of WCEC Unit 3 indicate that the maximum air quality concentrations are well below the AAQS. Based on the trends presented of these maximum concentrations, the air quality has generally improved in the region since the baseline date of August 7, 1977. As demonstrated in Section 6.0, the maximum air quality impacts resulting from WCEC Unit 3 are predicted to be low and, for most pollutants and averaging times, below the significant impact levels. The cumulative 24-hour average PM_{10} and SO_2 impact analyses demonstrate that the WCEC and background sources will comply with the PSD Increments and AAQS. As a result, the air quality concentrations in the region are expected to remain below the AAQS when WCEC Unit 3 becomes operational.

7.2 Potential Air Quality Effect Levels on Soils, Vegetation and Wildlife

7.2.1 Soils

The potential and hypothesized effects of atmospheric deposition on soils include:

- Increased soil acidification;
- Alteration in cation exchange;
- Loss of base cations; and
- Mobilization of trace metals.

The potential sensitivity of specific soils to atmospheric inputs is related to two factors. First, the physical ability of a soil to conduct water vertically through the soil profile is important in influencing the interaction with deposition. Second, the ability of the soil to resist chemical changes, as measured in terms of pH and soil cation exchange capacity (CEC), is important in determining how a soil responds to atmospheric inputs.

7.2.2 Vegetation

The concentrations of the pollutants, duration of exposure, and frequency of exposure influence the response of vegetation to atmospheric pollutants. The pattern of pollutant exposure expected from the facility is that of a few episodes of relatively high ground-level concentration, which occur during certain meteorological conditions, interspersed with long periods of extremely low ground-level concentrations. If there are any effects of stack emissions on plants, they will be from the short-term, higher doses. A dose is the product of the concentration of the pollutant and duration of the exposure.

In general, the effects of air pollutants on vegetation occur primarily from SO_2, NO_2, O_3, and PM. Effects from minor air contaminants, such as fluoride, chlorine, hydrogen chloride, ethylene, ammonia, hydrogen sulfide, CO, and pesticides, have also been reported in the literature. The effects of air pollutants are dependent both on the concentration of the contaminant and the duration of the exposure. The term "injury," as opposed to damage, is commonly used to describe all plant responses to air contaminants and will be used in the context of this analysis. Air contaminants are thought to interact primarily with plant foliage, which is considered to be the major pathway of exposure.

Injury to vegetation from exposure to various levels of air contaminants can be termed acute, physiological, or chronic. Acute injury occurs as a result of a short-term exposure to a high-contaminant concentration and is typically manifested by visible injury symptoms ranging from chlorosis (discoloration) to necrosis (dead areas). Physiological or latent injury occurs as the result of a long-term exposure to contaminant concentrations below that which result in acute injury symptoms. Chronic injury results from repeated exposure to low concentrations over extended periods of time, often without any visible symptoms, but with some effect on the overall growth and productivity of the plant. In this assessment, 100 percent of the particular air pollutant in the ambient air was assumed to interact with the vegetation, which is a very conservative approach.

7.2.2.1 *Sulfur Dioxide and Sulfuric Acid Mist*

Sulfur is an essential plant nutrient usually taken up as sulfate ions by the roots from the soil solution. When SO_2 in the atmosphere enters the foliage through pores in the leaves, it reacts with water in the leaf interior to form sulfite ions. Sulfite ions are highly toxic. They interact with enzymes, compete with normal metabolites, and interfere with a variety of cellular functions

(Horsman and Wellburn, 1976). However, within the leaf, sulfite is oxidized to sulfate ions, which can then be used by the plant as a nutrient. Small amounts of sulfite may be oxidized before they prove harmful.

Observed SO_2 effect levels for several plant species and plant sensitivity groupings are presented in Tables 7-1 and 7-2, respectively. SO_2 gas at elevated levels has long been known to cause injury to plants. Acute SO_2 injury usually develops within a few hours or days of exposure, and symptoms include marginal, flecked, and/or intercostal necrotic areas that appear water-soaked and dullish green initially. This injury generally occurs to younger leaves. Chronic injury is usually evident by signs of chlorosis, bronzing, premature senescence, reduced growth, and possible tissue necrosis (EPA, 1982). Background levels of SO_2 range from 2.5 to 25 $\mu g/m^3$.

Many studies have been conducted to determine the effects of high-concentration, short-term SO_2 exposure on natural community vegetation. Sensitive plants include ragweed, legumes, blackberry, southern pine, and red and black oak. These species are injured by exposure to 3-hour SO_2 concentrations of 790 to 1,570 $\mu g/m^3$. Intermediate plants include locust and sweetgum. These species are injured by exposure to 3-hour SO_2 concentrations of 1,570 to 2,100 $\mu g/m^3$. Resistant species (injured at concentrations above 2,100 $\mu g/m^3$ for 3 hours) include white oak and dogwood (EPA, 1982).

A study of native Floridian species (Woltz and Howe, 1981) demonstrated that cypress, slash pine, live oak, and mangrove exposed to 1,300 $\mu g/m^3$ SO_2 for 8 hours were not visibly damaged. This finding support the levels cited by other researchers on the effects of SO_2 on vegetation. A corroborative study (McLaughlin and Lee, 1974) demonstrated that approximately 20 percent of a cross-section of plants ranging from sensitive to tolerant was visibly injured at 3-hour SO_2 concentrations of 920 $\mu g/m^3$. Jack pine seedlings exposed to SO_2 concentrations of 470 to 520 $\mu g/m^3$ for 24 hours demonstrated inhibition of foliar lipid synthesis; however, this inhibition was reversible (Malhotra and Kahn, 1978). Black oak exposed to 1,310 $\mu g/m^3$ SO_2 for 24 hours a day for 1 week demonstrated a 48-percent reduction in photosynthesis (Carlson, 1979).

SO_2 is considered to be the primary factor causing the death of lichens in most urban and industrial areas. The first indications of damage from SO_2 include the inhibition of nitrogen fixation, increased electrolyte leakage, and decreased photosynthesis and respiration followed by discoloration and death of the algal component of the lichen (Fields 1988). Sensitive species are damaged or killed by annual average levels of sulfur dioxide ranging from 8 to 30 μg/m^3, and very few lichens can tolerate levels exceeding 125 μg/m^3 (Johnson 1979, DeWit 1976, Hawsworth and Rose 1970, LeBlanc et al. 1972). In another study, two lichen species exhibited signs of SO_2 damage in the form of decreased biomass gain and photosynthetic rate as well as membrane leakage when exposed to concentrations of 200 to 400 μg/m^3 for 6 hours/week for 10 weeks (Hart et al., 1988).

Acidic precipitation is formed from SO_2 emissions during the burning of fossil fuels. This pollutant is oxidized to sulfur trioxide in the atmosphere and dissolves in rain to form sulfuric acid mist (SAM), which falls as acidic precipitation (Ravera, 1989). Although concentration data are not available, SAM has been reported to yield necrotic spotting on the upper surfaces of leaves (Middleton et al., 1950).

7.2.2.2 *Nitrogen Dioxide*

NO_2 can injure plant tissue with symptoms usually appearing as irregular white to brown collapsed lesions between the leaf veins and near the margins. Conversely, non-injurious levels of NO_2 can be absorbed by plants, enzymatically transformed into ammonia, and incorporated into plant constituents such as amino acids (Matsumaru et al., 1979).

For plants that have been determined to be more sensitive to NO_2 exposure than others, acute exposure (1, 4, and 8 hours) caused 5 percent predicted foliar injury at concentrations ranging from 3,800 to 15,000 μg/m^3 (Heck and Tingey, 1979). Chronic exposure of selected plants (some considered NO_2 sensitive) to NO_2 concentrations of 2,000 to 4,000 μg/m^3 for 213 to 1,900 hours caused reductions in yield of up to 37 percent and some chlorosis (Zahn, 1975). Short-term exposure to NO_x at concentrations of 564 μg/m^3 caused adverse effects in lichen species (Holopainen and Karenlampi, 1984).

7.2.2.3 *Particulate Matter*

Although information pertaining to the effects of PM on plants is scarce, baseline concentrations are available (Mandoli and Dubey, 1988). Ten species of native Indian plants were exposed to levels of PM that ranged from 210 to 366 μg/m^3 for an 8-hour averaging period. Damage in the form of a higher leaf area/dry weight ratio was observed at varying degrees for most plants tested. Concentrations of PM lower than 163 μg/m^3 did not appear to be injurious to the tested plants.

7.2.2.4 *Carbon Monoxide*

Information pertaining to the effects of CO on plants is scarce. The main effect of high concentrations of CO is the inhibition of cytochrome *c* oxidase, the terminal oxidase in the mitochondrial electron transfer chain. Inhibition of cytochrome *c* oxidase depletes the supply of ATP, the principal donor of free energy required for cell functions. However, this inhibition only occurs at extremely high concentrations of CO. Pollok et al. (1989) reported that exposure to a $CO:O_2$ ratio of 25 (equivalent to an ambient CO concentration of 6.85×10^6 $\mu g/m^3$) resulted in stomatal closure in the leaves of the sunflower (*Helianthus annuus*). Naik et al. (1992) reported cytochrome *c* oxidase inhibition in corn, sorghum, millet, and Guinea grass at $CO:O_2$ ratios of 2.5 (equivalent to an ambient CO concentration of 6.85×10^5 $\mu g/m^3$). These plants were considered the species most sensitive to CO-induced inhibition of cytochrome *c* oxidase.

7.2.2.5 *Ozone*

O_3 can cause various damage to broad-leaved plants including: tissue collapse, interveinal necrosis and markings on the upper surface leaves know as stippling (pigmented yellow, light tan, red brown, dark brown, red, or purple), flecking (silver or bleached straw white), mottling, chlorosis or bronzing, and bleaching. O_3 can also stunt plant growth and bud formation. On certain plants such as citrus, grape, and tobacco, it is common for leaves to wither and drop early.

7.2.3 Wildlife

A wide range of physiological and ecological effects to fauna has been reported for gaseous and particulate pollutants (Newman, 1981; Newman and Schreiber, 1988). The most severe of these effects have been observed at concentrations above the secondary AAQS. Physiological and behavioral effects have been observed in experimental animals at or below these standards. For impacts on wildlife, the lowest threshold values of SO_2, NO_x, and particulates that are reported to cause physiological changes are shown in Table 7-3.

7.2.4 Impact Analysis Methodology

A screening approach was used that compared the Project's maximum predicted ambient concentration of air pollutants of concern in the vicinity of the Site and the Everglades NP PSD Class I Area with effect threshold limits for both vegetation and wildlife as reported in the scientific literature. A literature search was conducted to determine the effects of air contaminants on plant species as well as those species reported to occur in the vicinity of the Site and in the PSD Class I area. It is recognized that effect threshold information is not available for all species found in these areas, although studies have been performed on a few of the common species and on other species known to be sensitive indicators of effects. Species of lichens, which are symbiotic organisms comprised of green or blue-green algae and fungi, have been used worldwide as air pollution monitors because relatively low levels of sulfur, nitrogen, and fluorine-containing pollutants adversely affect many species, altering lichen community composition, growth rates, reproduction, physiology, and morphological appearance (Blett et al., 2003).

7.3 Impacts on Soils, Vegetation, Wildlife and Visibility in the Project's Vicinity

7.3.1 Impacts on Vegetation and Soils

The primary vegetation, as well as agricultural crop, in the vicinity of the WCEC is sugar cane. The site is surrounded by sugar cane fields for a large distance in all directions. Other agricultural areas are common in the local area, including rice fields, vegetable farming, nurseries, and sod farms. The northern edge of the Arthur R. Marshall Loxahatchee National Wildlife Refuge (NWR) is located to the south of the WCEC; vegetative communities in this area include freshwater tree islands, marsh, shrubs, and cattails. Exotic species have extensively colonized the northern, southeastern, and western portions of the Loxahatchee NWR, most notably melaleuca (*Melaleuca quinquenervia*), Brazilian pepper (*Schinus terebinthifolius*), Old World climbing fern (*Lygodium microphyllum*), water lettuce (*Pistia stratioides*), and water hyacinth (*Eichhornia crassipes*).

Soils in the area are primarily histosols, which are peat soils with high amounts of organic matter. The agricultural lands west of the Site are part of the Everglades Agricultural Area, which is noted for its "muck", i.e., rich, black soil that is very fertile.

According to the modeling results presented in Section 6.0, the maximum air quality impacts due to the Project are predicted to be well below the AAQS and PSD Increments. The AAQS were established to protect both public health and welfare. Public welfare is protected by the secondary AAQS, which Florida has adopted. Secondary standards set limits to protect public welfare, including protection against visibility impairment, damage to animals, crops, vegetation, and buildings (EPA, 2007).

Since the Project's impacts on the local air quality are predicted to be less than the AAQS and less than the effect levels on soils and vegetation, impacts on soils, vegetation, and wildlife in the

Project's vicinity are expected to be negligible. With regard to ozone concentrations, the Project's VOC and NO_x emissions represent an insignificant increase in VOC and NO_x emissions for Palm Beach County (see Section 6.11).

7.3.2 Impacts on Wildlife

The major air quality risk to wildlife in the United States is from continuous exposure to pollutants above the National AAQS. This occurs in non-attainment areas, e.g., Los Angeles Basin. Risks to wildlife also may occur for wildlife living in the vicinity of an emission source that experiences frequent upsets or episodic conditions resulting from malfunctioning equipment, unique meteorological conditions, or startup operations (Newman and Schreiber, 1988). Under these conditions, chronic effects (e.g., particulate contamination) and acute effects (e.g., injury to health) have been observed (Newman, 1981).

Although air pollution impacts to wildlife have been reported in the literature, many of the incidents involved acute exposures to pollutants, usually caused by unusual or highly concentrated releases or unique weather conditions. It is highly unlikely that emissions from WCEC Unit 3 will cause adverse effects to wildlife due to the Project's extremely low impacts, well below the AAQS. Coupled with the mobility of wildlife, the potential for exposure of wildlife to the Project's impacts is extremely unlikely.

7.3.3 Impacts on Visibility

No visibility impairment in the vicinity of WCEC Unit 3 is expected due to the types and quantities of emissions proposed for the Project. The opacity of the proposed CT emissions will be 10 percent or less under normal operation and the potential for fogging from the cooling towers is minimal.

7.3.4 Impacts due to Deposition in the Loxahatchee National Wildlife Refuge

The total sulfur and nitrogen deposition due to the operation of WCEC Unit 3 was determined using CALPUFF. The maximum deposition was determined within the Loxahatchee NWR that included the average over the entire area for the 3 year period that was evaluated with CALPUFF.

The maximum total sulfur deposition in the Loxahatchee NWR was predicted to be 0.0825 kilograms per hectare per year (kg/ha/yr), while the average deposition over the entire Loxahatchee NWR was predicted to be 0.0103 kg/ha/yr, or 8 times lower than the predicted maximum. Sulfur deposition occurs due to sulfur in the atmosphere as a result of both man-made emissions and natural sources.

The latter includes sulfur included as sulfate as a natural component of sea salt, which can be a considerable portion of deposition. As previously discussed, background deposition of various major anions and cations are available for south Florida from the FADS as wet and dry deposition and the FAMS as wet deposition. The total wet and dry sulfur deposition in south Florida for FADS ranges from 4.9 to 5.6 kg/ha/yr, over 60 times higher than the maximum predicted deposition due to WCEC Unit 3 and over 475 times higher than the average deposition due to WCEC Unit 3 across the Loxahatchee NWR. The contribution from sea salt to wet sulfur deposition is 0.7 kg/ha/yr, considerably higher than the maximum and average predicted sulfur deposition in the Loxahatchee NWR. The predicted total sulfur deposition due to WCEC Unit 3 in the Loxahatchee NWR, when rainfall is considered, would result in average concentrations of 2 parts per billion (as sulfate) which is 4 orders of magnitude lower than the concentrations of sulfate in surface waters in the vicinity of the Loxahatchee NWR. As a result, the impact from sulfur deposition due to WCEC Unit 3 to the Loxahatchee NWR is considered insignificant.

The maximum total nitrogen deposition in the Loxahatchee NWR was predicted to be 0.0252 kg/ha/yr, while the average deposition over the entire Loxahatchee NWR was predicted to be 0.0049 kg/ha/yr or 5 times lower than the predicted maximum. Nitrogen deposition occurs due to nitrogen compounds in the atmosphere as a result of both man-made emissions and natural sources. The total wet and dry nitrogen deposition in south Florida for FADS ranges from 3.4 to 3.8 kg/ha/yr, over 130 times higher than the maximum predicted deposition due to WCEC Unit 3 and about 700 times higher than the average deposition due to WCEC Unit 3 across the Loxahatchee NWR. The predicted total nitrogen deposition due to WCEC Unit 3 in the Loxahatchee NWR, when rainfall is considered, would result in average concentrations of about 1 part per billion (as nitrate), which is 500 times lower than the concentrations of nitrate in surface waters in the vicinity of the Loxahatchee NWR. As a result, the impact from nitrate deposition due to WCEC Unit 3 in the Loxahatchee NWR is considered insignificant.

7.4 Impacts to AQRVs in the Everglades NP PSD Class I Area

7.4.1 Identification of AQRVs and Methodology

An AQRV analysis was conducted to assess the potential risk to AQRVs at the Everglades NP due to the proposed emissions from the WCEC. The Everglades NP is the closest Class I area to the Site, located approximately 102 km south of the WCEC Site.

The U.S. Department of the Interior in 1978 defined AQRVs to be:

> All those values possessed by an area except those that are not affected by changes in air quality and include all those assets of an area whose vitality, significance, or integrity is dependent in some way upon the air environment. These values include visibility and those scenic, cultural, biological, and recreational resources of an area that are affected by air quality.
>
> Important attributes of an area are those values or assets that make an area significant as a national monument, preserve, or primitive area. They are the assets that are to be preserved if the area is to achieve the purposes for which it was set aside (Federal Register, 1978).

The AQRVs include visibility, freshwater and coastal wetlands, dominant plant communities, unique and rare plant communities, soils and associated periphyton, and the wildlife dependent on these communities for habitat. Rare, endemic, threatened, and endangered species of the national park and bioindicators of air pollution (e.g., lichens) are also evaluated.

The maximum concentrations for SO_2, NO_2, PM_{10}, CO and SAM are shown in Tables 7-4 and 7-5 for the annual, 24-hour, 8-hour, 3-hour and 1-hour averaging times when firing natural gas and natural gas/ultra low-sulfur light oil. These maximum concentrations were compared to the potential effect levels for vegetation and wildlife in Section 7.2.

7.4.2 Impacts to Soils

The soils of the Everglades NP are generally classified as histosols or entisols. Histosols (peat soils) are organic and have extremely high buffering capacities based on their CEC, base saturation, and bulk density. Therefore, they would be relatively insensitive to atmospheric inputs. The entisols are shallow sandy soils overlying limestone, such as the soils found in the pinelands. The direct connection of these soils with subsurface limestone tends to neutralize any acidic inputs. Moreover, the groundwater table is highly buffered due to the interaction with subsurface limestone formations, which results in high alkalinity (as $CaCO_3$).

The relatively low sensitivity of the soils to acid inputs, coupled with the extremely low ground-level concentrations of air pollutants projected for the Everglades NP from the WCEC Unit 3 emissions, precludes any significant impact on soils.

7.4.3 Impacts to Vegetation

7.4.3.1 *Sulfur Dioxide*

The maximum annual average SO_2 concentration resulting from the WCEC Unit 3 Project is 0.0022 $\mu g/m^3$, less than 0.03% of the concentration that damaged the most sensitive lichen species (8 $\mu g/m^3$). The maximum 3-, 8-, and 24-hour average SO_2 concentrations for the Project are predicted to be 0.16, 0.11, and 0.043 $\mu g/m^3$, respectively, at the Class I area. The maximum 3-hour average SO_2 concentration predicted for the project at the Class I area is 0.02 percent of the acute exposure that caused damage to sensitive species of vegetation (i.e., 790 $\mu g/m^3$). The modeled annual incremental increase in SO_2 adds only slightly to background levels of this gas and poses no threat to vegetation within the Everglades NP.

7.4.3.2 *Nitrogen Dioxide*

The maximum 1-, 3-, and 8-hour average NO_2 concentrations due to the Project are predicted to be 0.55, 0.40, and 0.29 $\mu g/m^3$, respectively, at the Class I area. These concentrations are approximately 0.002 to 0.014 percent of the levels that could potentially injure 5 percent of vascular plant foliage (i.e., 3,800 to 15,000 $\mu g/m^3$), and 0.1 percent of the concentration that caused adverse effects in lichen species in acute exposure scenarios (564 $\mu g/m^3$). For a chronic exposure, the maximum annual NO_2 concentration due to the Project is predicted to be 0.0018 $\mu g/m^3$ at the Class I area, which is less than 0.0001 percent of the levels that caused minimal yield loss and chlorosis in plant tissue (i.e., 2,000 $\mu g/m^3$).

Although it has been shown that simultaneous exposure to SO_2 and NO_2 results in synergistic plant injury (Ashenden and Williams, 1980), the magnitude of this response is generally only 3 to 4 times greater than either gas alone, and usually occurs at unnaturally high levels of each gas. Therefore, the Project's concentrations within the Everglades NP are still far below the levels that potentially cause plant injury for either acute or chronic exposure.

7.4.3.3 *Particulate Matter*

The maximum 8-hour PM concentration due to the Project is predicted to be 0.24 $\mu g/m^3$ at the Class I area. This impact is 0.1 percent of the values that affected plant foliage (i.e., 210 $\mu g/m^3$). As a result, no significant effects to vegetative AQRVs within the Everglades NP are expected as a result of the Project's PM emissions.

7.4.3.4 *Carbon Monoxide*

The maximum 1-hour average concentration due to the Project is 0.77 $\mu g/m^3$ in the Class I area which is less than 0.00001 percent of the minimum value that caused inhibition in laboratory studies (i.e., 6.85×10^6 $\mu g/m^3$). The amount of damage sustained at this level, if any, for 1 hour would have negligible effects over an entire growing season. The maximum predicted annual concentration of 0.010 $\mu g/m^3$ reflects more realistic, yet conservative, CO impact level for the Class I area. This maximum concentration is predicted to be less than 0.000001 percent of the value that caused cytochrome *c* oxidase inhibition (6.85×10^5 $\mu g/m^3$).

7.4.3.5 *Sulfuric Acid Mist*

No significant adverse effects on vegetation are expected from the Project's emissions because SO_2 concentrations, which lead directly to the formation of SAM concentrations, are predicted to be well below levels that have been documented as adversely affecting vegetation. Acidic deposition is an ecosystem-level problem that affects vegetation because of some alterations of soil conditions such as increased leaching of essential base cations or elevated concentrations of aluminum in the soil water (Goldstein et al., 1985). Although effects of acid rain in eastern North America have been well published and publicized, detrimental effects of acid rain on Florida vegetation are lacking documentation.

7.4.3.6 *VOC and NO_x Emissions and Impacts to Ozone*

Based on the O_3 monitoring concentrations measured in Palm Beach County and VOC and NO_x emissions increase due to the Project (see Section 6.11), the potential change in O_3 concentrations due to the Project are expected to be minimal, with the maximum O_3 concentrations in the region to remain in compliance with the AAQS.

7.4.3.7 *Summary*

In summary, the phytotoxic effects of the Project's emissions within the Everglades NP are expected to be minimal. It is important to note that emissions were evaluated with the assumption that 100 percent was available for plant uptake. This is rarely the case in a natural ecosystem.

7.4.4 Impacts to Wildlife

The Project's extremely low emissions are well below the AAQS, which are protective of soils, vegetation, and wildlife resources. The values of potential impacts to wildlife shown in Table 7-3 are up to orders of magnitude larger than maximum predicted impacts of the Project in the Class I area.

No significant effects on wildlife AQRVs from SO_2, NO_x, and particulates are expected.

7.4.5 Impacts on Visibility and From Deposition

7.4.5.1 *Visibility*

The CAA Amendments of 1977 provide for implementation of guidelines to prevent visibility impairment in mandatory Class I areas. The guidelines are intended to protect the aesthetic quality of these pristine areas from reduction in visual range and atmospheric discoloration due to various air pollutants. Visibility can take the form of plume blight for nearby areas (i.e., distances within 50 km) or regional haze for long distances (i.e., distances beyond 50 km).

Visibility is an AQRV for the Everglades NP. Because the nearest distance to the Everglades NP from the Site is about 102 km, the potential changes in visibility resulting from the WCEC were analyzed as regional haze.

Currently, there are several air quality modeling approaches recommended by the Interagency Workgroup on Air Quality Models (IWAQM) to perform these analyses. The IWAQM consists of EPA and FLM of Class I areas that are responsible for ensuring that AQRVs are not adversely impacted by new and existing sources. These recommendations have been summarized in guidelines required by the 1977 Clean Air Act Amendments and are contained in two documents:

- *Interagency Workgroup on Air Quality Models (IWAQM), Phase 2 Summary Report and Recommendations for Modeling Long Range Transport Impacts* (EPA, 1998), referred to as the IWAQM Phase 2 report; and
- *Federal Land Managers' Air Quality Related Values Workgroup (FLAG), Phase I Report,* USFS, NPS, USFWS (December, 2000), referred to as the FLAG document.

The methods and assumptions recommended in these documents were used to assess potential visibility impairment in the Everglades NP Class I area due to the WCEC.

Based on the FLAG document, current regional haze guidelines characterize a change in visibility by the change in the light-extinction coefficient (b_{ext}). The b_{ext} is the attenuation of light per unit distance due to the scattering and absorption by gases and particles in the atmosphere. A change in the extinction coefficient produces a perceived visual change. An index that simply quantifies the percent change in visibility due to the operation of a source is calculated as:

$$\Delta\% = (b_{exts} / b_{extb}) \times 100$$

where: b_{exts} is the extinction coefficient calculated for the source; and
b_{extb} is the background extinction coefficient.

The purpose of the visibility analysis is to calculate the extinction at each receptor for each day (24-hour period) of the year due to the proposed WCEC. The criteria to determine if the WCEC's impacts are potentially significant are based on a change in extinction of 5 percent or greater for any day of the year.

Processing of visibility impairment for this study was performed with the CALPUFF model and the post-processing programs POSTUTIL and CALPOST. The analysis was conducted in accordance with the most recent guidance from the FLAG report (December 2000) and communications with the FLM. The CALPUFF postprocessor model POSTUTIL is used to speciate the emitted particulate matter into its filterable and condensable components. The CALPUFF postprocessor model CALPOST is used to calculate the combined visibility effects from the different pollutants that are emitted from the WCEC. In an email communication dated November 1, 2007, the FLM suggested using the Ammonia-Limiting Method Option in POSTUTIL to repartition the HNO_3/NO_3 concentrations for all sources (i.e., set MNITRATE switch = 1). The background ammonia concentration was assumed as 0.5 part per billion (ppb) for each month and the hourly relative humidity and temperature data were obtained from the CALMET.DAT files for each year. Daily background extinction coefficients are calculated on an hour-by-hour basis using hourly relative humidity data (i.e., Visibility method 2 in CALPOST) from CALMET and hygroscopic and non-hygroscopic extinction components specified in the FLAG document. For the Class I area evaluated, the hygroscopic and non-hygroscopic components are 0.9 and 8.5 inverse mega meter (Mm^{-1}). CALPOST then predicts the percent extinction change for each day of the year.

The results of the refined regional haze analysis for the Project at 1,250 MW are presented in Table 7-6 for natural gas and oil firing. The maximum impacts on visibility at the Everglades NP due to the proposed Project are predicted to be 3.43 percent while firing fuel oil and 2.15 percent while firing natural gas. The impacts are less than the 5-percent criteria as shown in Table 7-6. Therefore, the Project is not expected to have an adverse impact on regional haze in the Everglades NP.

7.4.5.2 *Sulfur and Nitrogen Deposition*

General Methods

As part of the AQRV analyses, total nitrogen (N) and sulfur (S) deposition rates were predicted at the Everglades NP Class I area. The deposition analysis thresholds (DAT) are based on the annual averaging period. The total deposition is estimated in units of kilogram per hectare per year (kg/ha/yr) of nitrogen or sulfur. The CALPUFF model is used to predict wet and dry deposition fluxes of various oxides of these elements.

For N deposition, the species include:

- Particulate ammonium nitrate (from species NO_3), wet and dry deposition;
- Nitric acid (species HNO_3), wet and dry deposition;
- NO_x, dry deposition; and
- Ammonium sulfate (species SO_4), wet and dry deposition.

For S deposition, the species include:

- SO_2, wet and dry deposition; and
- SO_4, wet and dry deposition.

The CALPUFF model produces results in units of micrograms per square meter per second ($\mu g/m^2/s$). The modeled deposition rates are then converted to N or S deposition in kilograms per hectare (kg/ha), respectively, by using a multiplier equal to the ratio of the molecular weights of the substances (IWAQM Phase II report Section 3.3).

A DAT for nitrogen and sulfur deposition of 0.01 kg/ha/yr was provided by the U.S. Fish and Wildlife Service (January 2002). A DAT is the additional amount of N or S deposition within a Class I area, below which estimated impacts from a proposed new or modified source are considered insignificant. The maximum N and S depositions predicted for the WCEC are, therefore, compared to these DAT or significant impact levels.

Results

The maximum predicted N and S depositions predicted for the Project in the PSD Class I area of the Everglades NP are summarized in Table 7-7. The maximum annual-average N and S deposition rates for the Project are predicted to be 0.0012 and 0.0020 kg/ha/yr, respectively. The deposition rates are well below the significant impact levels for N and S of 0.01 kg/ha/yr.

The dominant soils of the Everglades NP include organic histosols with extremely high buffering capacities and sandy entisols overlying limestone, which provide a buffer to acidic inputs. These soils are resistant to acidic atmospheric inputs. The averaging buffering capacity of histosols is 765,000 equivalents/hectare (eq/ha) [Florida Acid Deposition Study (FADS), 1986]. As acid inputs (e.g., HNO_3 and H_2SO_4), the maximum predicted deposition rates of 0.0012 kg/ha/yr for nitrogen and 0.0020 kg/ha/yr for sulfur, are 0.10 and 0.13 eq/ha/yr, respectively. These deposition rates are extremely small compared to the buffering capacity of the soils in the Everglades NP. These deposition rates are also small compared to the observed sulfur and nitrogen deposition obtained from the FADS. Measurements taken near the northern boundary of the Everglades NP (near U.S Highway 41 and the boundary of Miami-Dade and Monroe Counties) found wet and dry deposition rates of 243 and 306 eq/ha/yr over a 3-year period (FADS, 1986). In addition, the groundwater table is highly buffered due to the interaction with subsurface limestone formations, which results in high alkalinity (as $CaCO_3$). The relatively low sensitivity of the soils to acid inputs coupled with the extremely low ground-level concentrations of contaminants projected for the Everglades NP from the WCEC emissions precludes any significant impact on soils. Similarly, the total annual sulfur and nitrogen deposition rates as a result of the WCEC at the Everglades NP are not expected to alter soil and/or groundwater pH so as to cause adverse effects on vegetation. As presented in Subsection 7.3.3, the phytotoxic effects on the Everglades NP from the WCEC's emissions are expected to be minimal.

TABLE 7-1

SO_2 EFFECTS LEVELS FOR VARIOUS PLANT SPECIES

Plant Species	Observed Effect Level ($\mu g/m^3$)	Exposure (Time)	Reference
Sensitive to tolerant	920 (20 percent displayed visible injury)	3 hours	McLaughlin and Lee, 1974
Lichens	200 to 400	6 hr/wk for 10 weeks	Hart et al., 1988
Cypress, slash pine, live oak, mangrove	1,300	8 hours	Woltz and Howe, 1981
Jack pine seedlings	470-520	24 hours	Malhotra and Kahn, 1978
Black oak	1,310	Continuously for 1 week	Carlson, 1979

TABLE 7-2

SENSITIVITY GROUPINGS OF VEGETATION BASED ON VISIBLE INJURY AT DIFFERENT SO_2 EXPOSURES[a]

Sensitivity Grouping	SO_2 Concentration 1-Hour	SO_2 Concentration 3-Hour	Plants
Sensitive	1,310 - 2,620 μG/m³ (0.5 - 1.0 ppm)	790 - 1,570 μG/m³ (0.3 - 0.6 ppm)	Ragweeds Legumes Blackberry Southern pines Red and black oaks White ash Sumacs
Intermediate	2,620 - 5,240 μG/m³ (1.0 - 2.0 ppm)	1,570 - 2,100 μG/m³ (0.6 - 0.8 ppm)	Maples Locust Sweetgum Cherry Elms Tuliptree Many crop and garden species
Resistant	>5,240 μG/m³ (>2.0 ppm)	>2,100 μG/m³ (>0.8 ppm)	White oaks Potato Upland cotton Corn Dogwood Peach

[a] Based on observations over a 20-year period of visible injury occurring on over 120 species growing in the vicinities of coal-fired power plants in the southeastern United States.

Source: EPA, 1982a.

TABLE 7-3

EXAMPLES OF REPORTED EFFECTS OF AIR POLLUTANTS AT CONCENTRATIONS BELOW NATIONAL SECONDARY AMBIENT AIR QUALITY STANDARDS

Pollutant	Reported Effect	Concentration ($\mu g/m^3$)	Exposure
Sulfur Dioxide[a]	Respiratory stress in guinea pigs	427 to 854	1 hour
	Respiratory stress in rats	267	7 hours/day; 5 day/week for 10 weeks
	Decreased abundance in deer mice	13 to 157	continually for 5 months
Nitrogen Dioxide[b,c]	Respiratory stress in mice	1,917	3 hours
	Respiratory stress in guinea pigs	96 to 958	8 hours/day for 122 days
Particulates[a]	Respiratory stress, reduced respiratory disease defenses	120 PbO_3	continually for 2 months
	Decreased respiratory disease defenses in rats, same with hamsters	100 $NiCl_2$	2 hours

Sources: [a] Newman and Schreiber, 1988.
[b] Gardner and Graham, 1976.
[c] Trzeciak et al., 1977.

TABLE 7-4
MAXIMUM POLLUTANT CONCENTRATIONS PREDICTED FOR WCEC UNIT 3 AT THE EVERGLADES NP PSD CLASS I AREA NATURAL GAS- FIRING

Pollutant	Averaging Time	Pollutant Maximum Concentrations ($\mu g/m^3$) [a, b] 2001	2002	2003
SO_2	Annual	0.0016	0.0019	0.0022
	24-Hour	0.042	0.041	0.043
	8-Hour	0.114	0.102	0.085
	3-Hour	0.160	0.134	0.136
	1-Hour	0.179	0.160	0.203
NO_2	Annual	0.0014	0.0016	0.0018
	24-Hour	0.052	0.050	0.039
	8-Hour	0.123	0.128	0.109
	3-Hour	0.147	0.167	0.161
	1-Hour	0.235	0.216	0.229
PM_{10}	Annual	0.0008	0.0010	0.0012
	24-Hour	0.020	0.020	0.024
	8-Hour	0.055	0.048	0.049
	3-Hour	0.081	0.062	0.070
	1-Hour	0.086	0.075	0.101
CO	Annual	0.008	0.009	0.010
	24-Hour	0.186	0.151	0.188
	8-Hour	0.521	0.361	0.404
	3-Hour	0.705	0.475	0.586
	1-Hour	0.751	0.607	0.774
SAM	Annual	0.0006	0.0007	0.0008
	24-Hour	0.0138	0.0138	0.0161
	8-Hour	0.0406	0.0277	0.0396
	3-Hour	0.0586	0.0375	0.0559
	1-Hour	0.0639	0.0445	0.0678

[a] Based on the CALPUFF model using 2001, 2002, and 2003 surface and upper air meteorological data.

[b] Based on 100 % operating load with duct firing at 35 °F. Duct firing based on natural gas-fired duct burner with maximum heat input rate o: 475 mmBtu/hr (HHV).

TABLE 7-5
MAXIMUM POLLUTANT CONCENTRATIONS PREDICTED FOR WCEC UNIT 3
AT THE EVERGLADES NP PSD CLASS I AREA
NATURAL GAS- AND DISTILLATE OIL- FIRING

Pollutant	Averaging Time	Distillate Oil- Firing Maximum Concentrations ($\mu g/m^3$) [a] 2001	2002	2003	Distillate Oil/Gas- Firing Maximum Concentrations ($\mu g/m^3$) [b] 2001	2002	2003
SO_2	Annual	0.0003	0.0003	0.0003	0.0016	0.0019	0.0022
	24-Hour	0.007	0.007	0.008	0.042	0.041	0.043
	8-Hour	0.021	0.012	0.020	0.114	0.102	0.085
	3-Hour	0.029	0.020	0.025	0.160	0.134	0.136
	1-Hour	0.031	0.026	0.031	0.179	0.160	0.203
NO_2	Annual	0.0032	0.0032	0.0033	0.0014	0.0016	0.0018
	24-Hour	0.123	0.094	0.097	0.123	0.094	0.097
	8-Hour	0.292	0.219	0.255	0.292	0.219	0.255
	3-Hour	0.364	0.354	0.404	0.364	0.354	0.404
	1-Hour	0.511	0.504	0.552	0.511	0.504	0.552
PM_{10}	Annual	0.0033	0.0037	0.0041	0.0008	0.0010	0.0012
	24-Hour	0.081	0.086	0.101	0.081	0.086	0.101
	8-Hour	0.238	0.130	0.241	0.238	0.130	0.241
	3-Hour	0.351	0.216	0.294	0.351	0.216	0.294
	1-Hour	0.373	0.278	0.384	0.373	0.278	0.384
CO	Annual	0.005	0.006	0.006	0.008	0.009	0.010
	24-Hour	0.132	0.115	0.131	0.186	0.151	0.188
	8-Hour	0.375	0.178	0.310	0.521	0.361	0.404
	3-Hour	0.494	0.294	0.377	0.705	0.475	0.586
	1-Hour	0.525	0.395	0.494	0.751	0.607	0.774
SAM	Annual	0.0001	0.0001	0.0001	0.00060	0.00070	0.00080
	24-Hour	0.0024	0.0025	0.0027	0.014	0.014	0.016
	8-Hour	0.0070	0.0052	0.0063	0.041	0.028	0.040
	3-Hour	0.0099	0.0075	0.0097	0.059	0.038	0.056
	1-Hour	0.0116	0.0082	0.0122	0.064	0.045	0.068

[a] Based on the CALPUFF model using 2001, 2002, and 2003 surface and upper air meteorological data.

[b] Maximum annual average concentration are based on prorating the maximum impacts for each operation by the following maximum number of hours requested for that operation:

Pollutant	Natural Gas	Fuel Oil	Total
SO_2	8,760	0	8,760
PM_{10}	8,260	500	8,760
NO_2	8,260	500	8,760
CO	8,760	0	8,760
SAM	8,760	0	8,760

TABLE 7-6
MAXIMUM 24-HOUR AVERAGE VISIBILITY IMPAIRMENT PREDICTED FOR THE PROJECT
AT THE PSD CLASS I AREA OF THE EVERGLADES NATIONAL PARK

Operating Scenario	Units	Visibility Impairment Impacts			Total Number of Days > Visibility Impairment Criteria	
		2001	2002	2003	5%	10%
Fuel Oil- Firing	Maximum %	1.62	3.43	2.00		
	No. Days >					
	5%	0	0	0	0	
	10%	0	0	0		0
Natural Gas- Firing	Maximum %	1.40	2.15	1.72		
	No. Days >					
	5%	0	0	0	0	
	10%	0	0	0		0

TABLE 7-7
MAXIMUM ANNUAL SULFUR AND NITROGEN DEPOSITION PREDICTED FOR THE PROJECT AT THE PSD CLASS I AREA OF THE EVERGLADES NATIONAL PARK

	Total Deposition (Wet & Dry)						Deposition Analysis Threshold [b]
	2001		2002		2003		
Species	($g/m^2/s$)	(kg/ha/yr) [a]	($g/m^2/s$)	(kg/ha/yr) [a]	($g/m^2/s$)	(kg/ha/yr) [a]	(kg/ha/yr)
Nitrogen (N) Deposition [c]	2.16E-12	0.0007	3.81E-12	0.0012	2.63E-12	0.0008	0.01
Sulfur (S) Deposition [c]	4.38E-12	0.0014	6.28E-12	0.0020	4.34E-12	0.0014	0.01

[a] Conversion factor is used to convert $g/m^2/s$ to kg/hectare (ha)/yr with the following units:

$g/m^2/s$ x 0.001 kg/g
x 10,000 m^2/hectare
x 3,600 sec/hr
x 8,760 hr/yr = kg/ha/yr
or
$g/m^2/s$ x 3.154E+08 = kg/ha/yr

[b] Deposition analysis thresholds (DAT) for nitrogen and sulfur deposition provided by the U.S. Fish and Wildlife Service, January 2002. A DAT is the additional amount of N or S deposition within a Class I area, below which estimated impacts from a proposed new or modified source are considered insignificant.

[c] For N deposition, based on each CT firing natural gas with duct firing for 8,260 hours and firing oil for 500 hours.
For S deposition, based on each CT firing natural gas with duct firing for 8,760 hours.

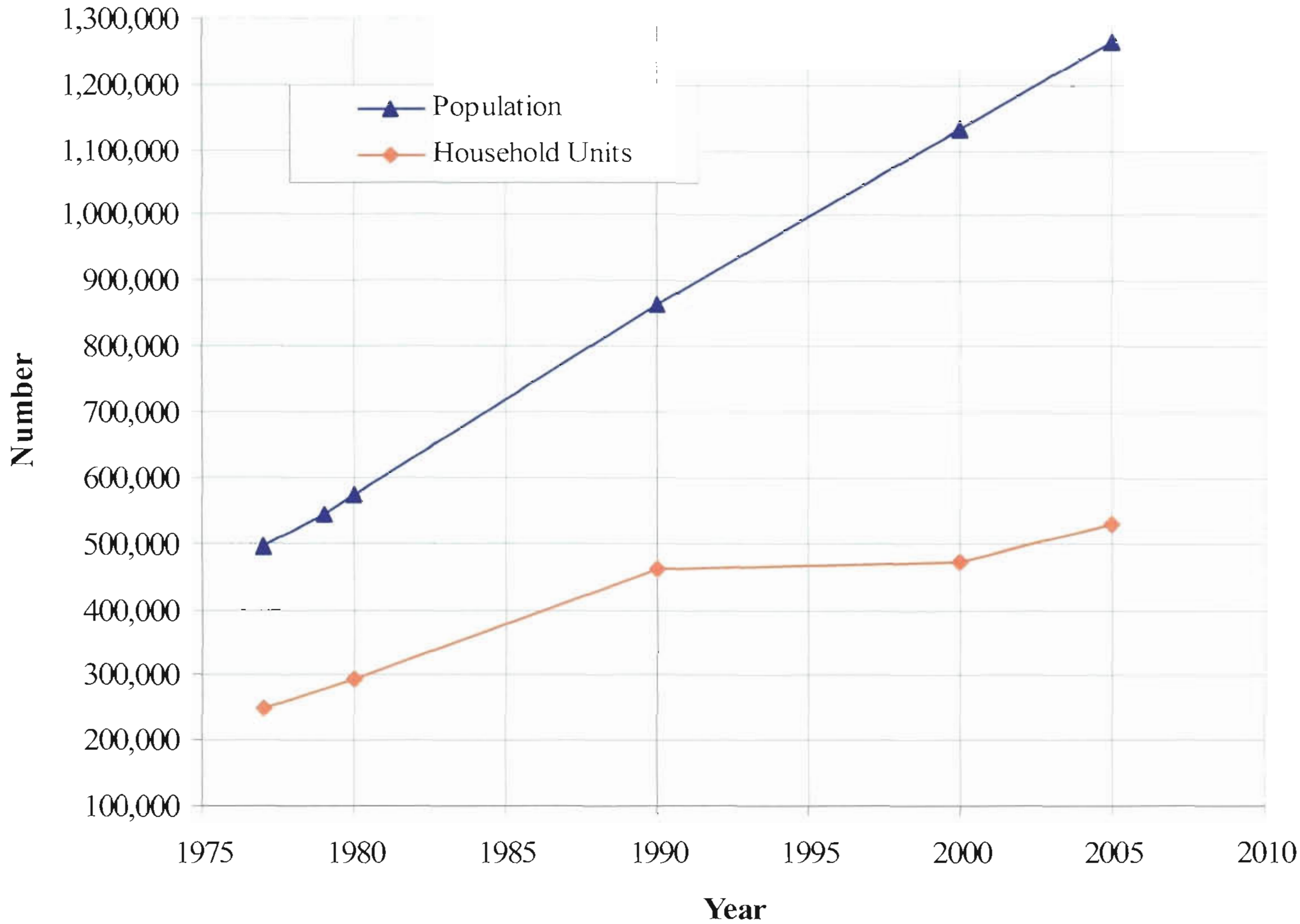


Figure 7-1
Population and Household Unit Trends in Palm Beach County

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Source: Golder, 2007.

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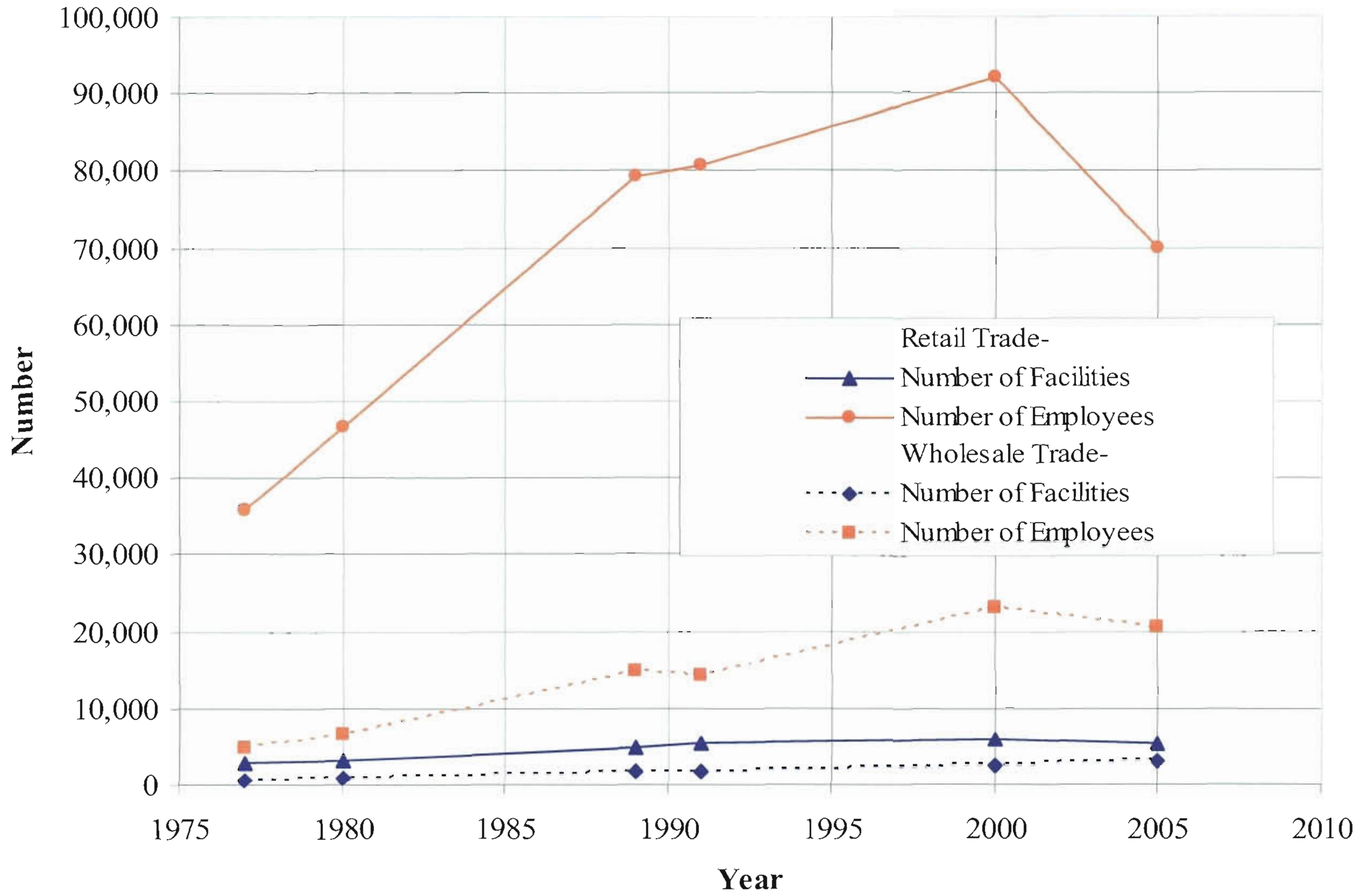

Figure 7-2
Retail and Wholesale Trade Trends in Palm Beach County

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Source: Golder, 2007.

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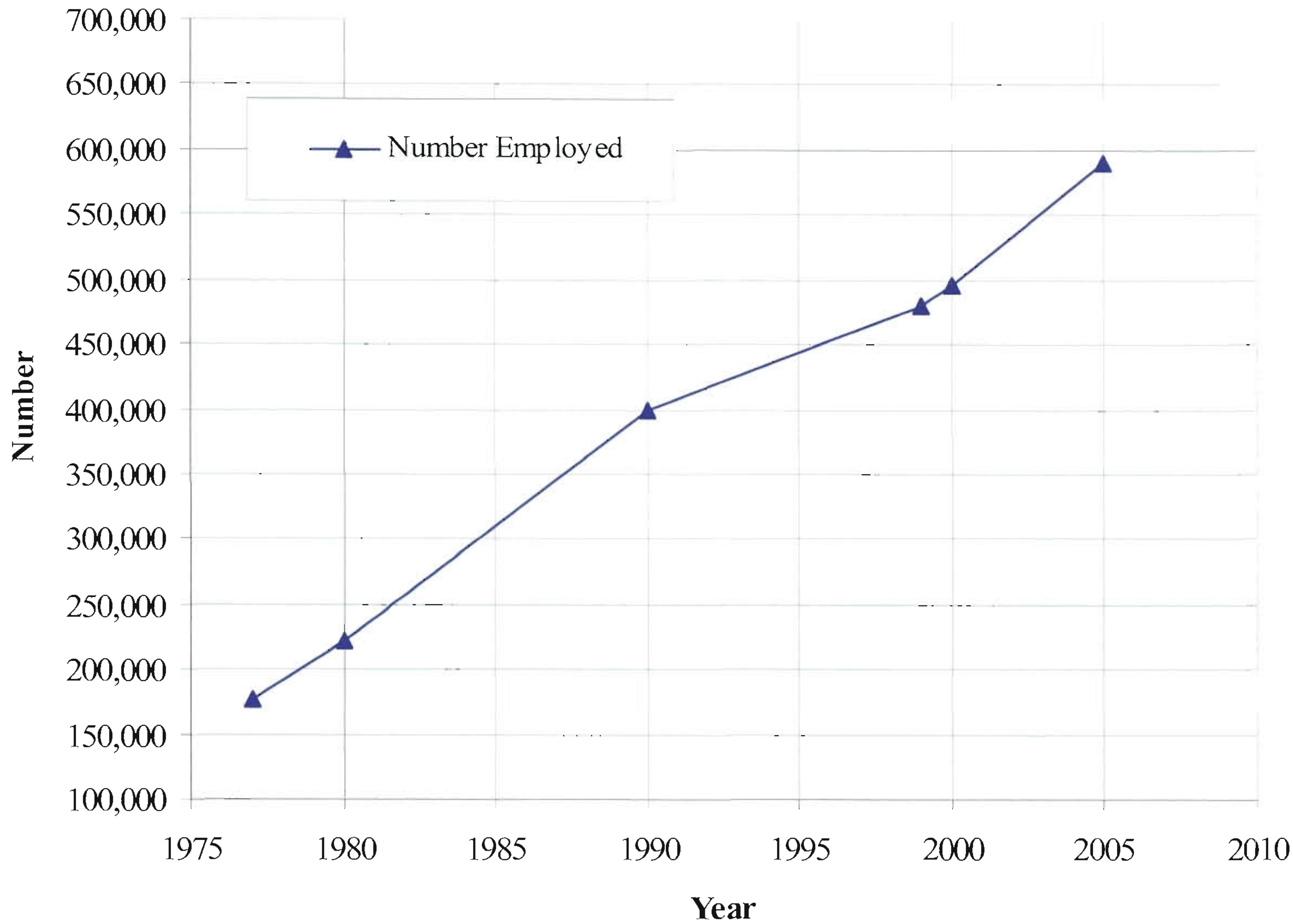

Figure 7-3
Labor Force Trend in Palm Beach County

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Source: Golder, 2007.

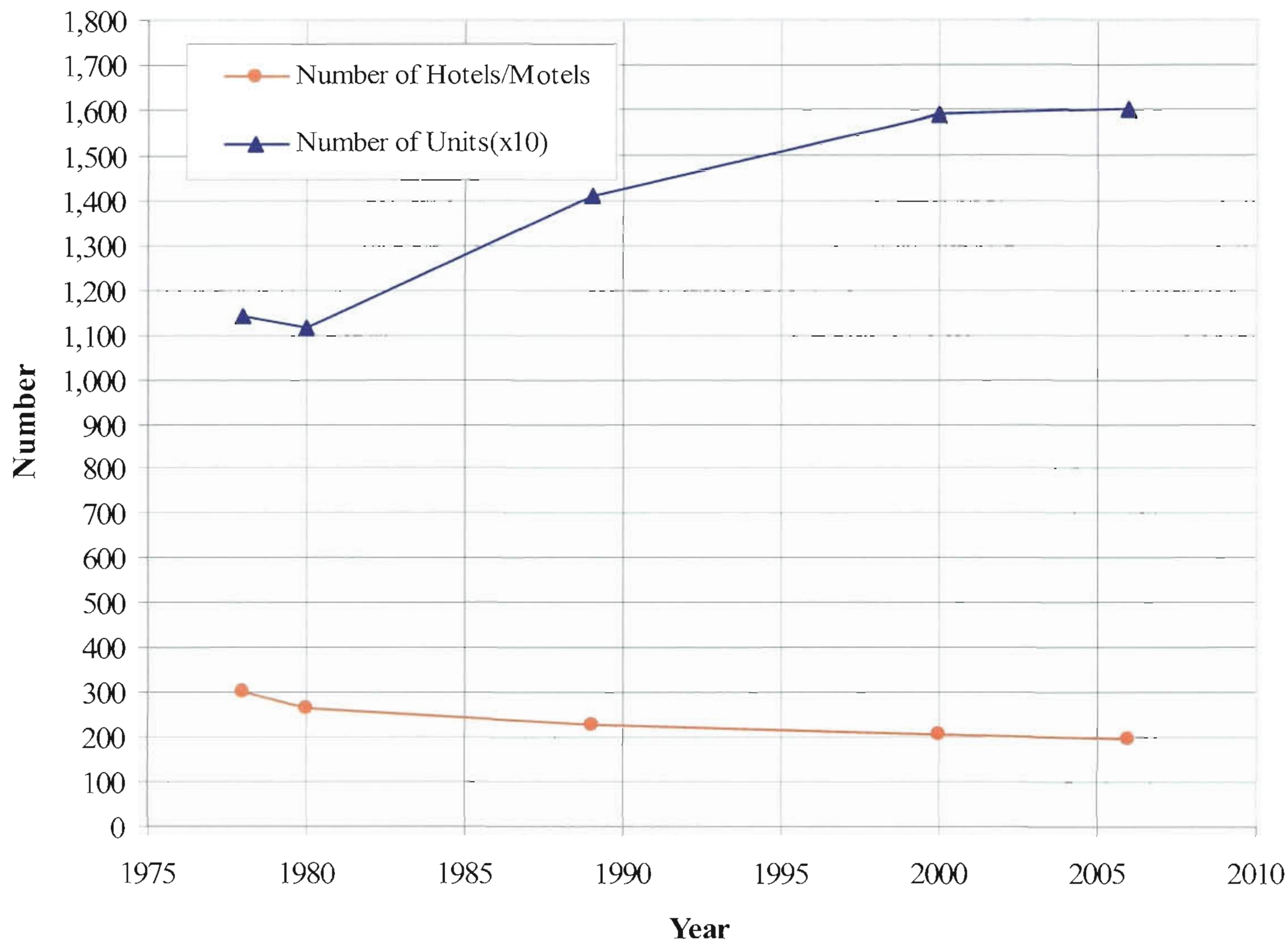

Figure 7-4
Hotel and Motel Trends in Palm Beach County

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Source: Golder, 2007.

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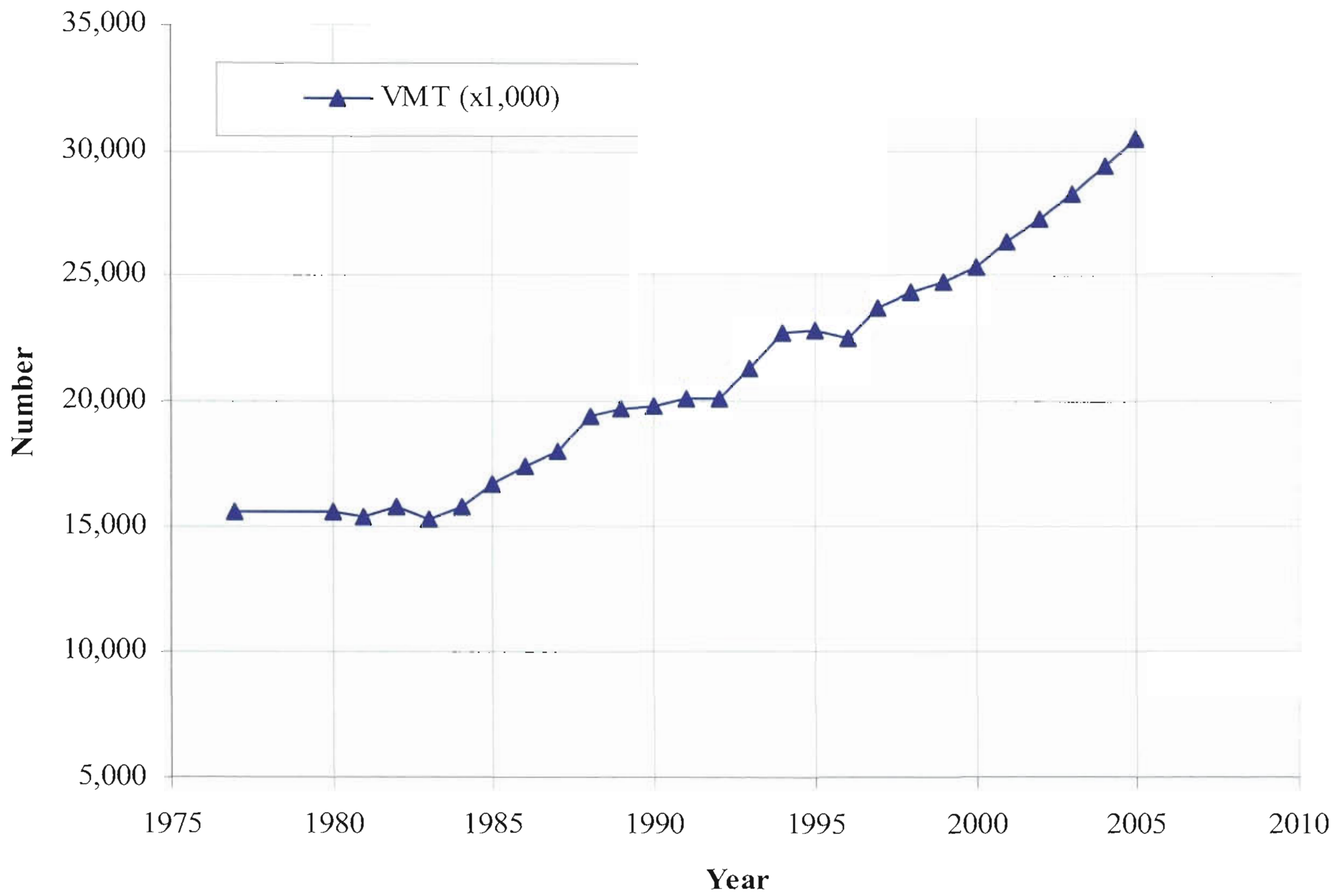

Figure 7-5
Vehicle Miles Traveled (VMT) Estimates for Motor Vehicles for Palm Beach County

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Source: Golder, 2007.

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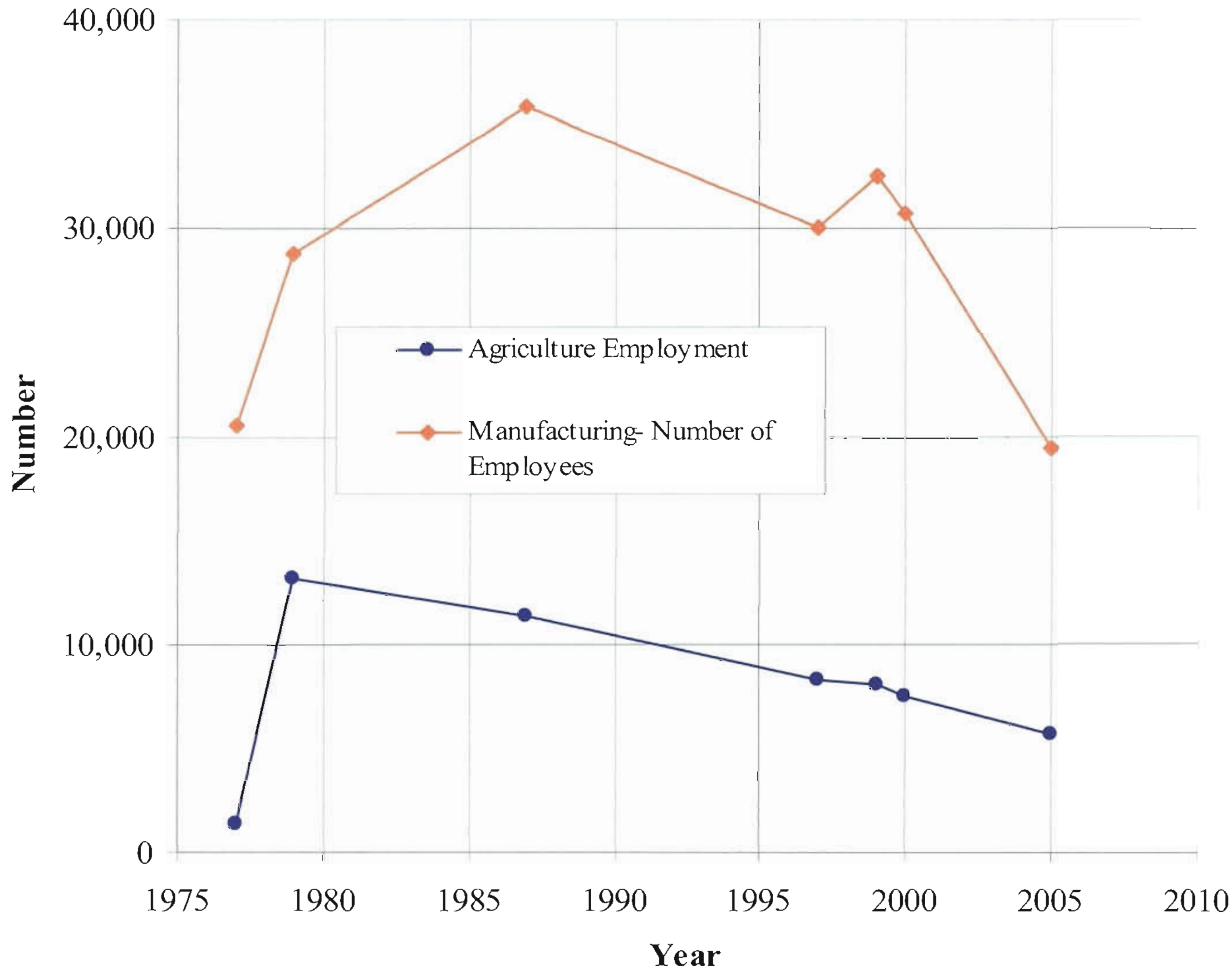

Figure 7-6
Manufacturing and Agriculture Trends in Palm Beach County

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Source: Golder, 2007.

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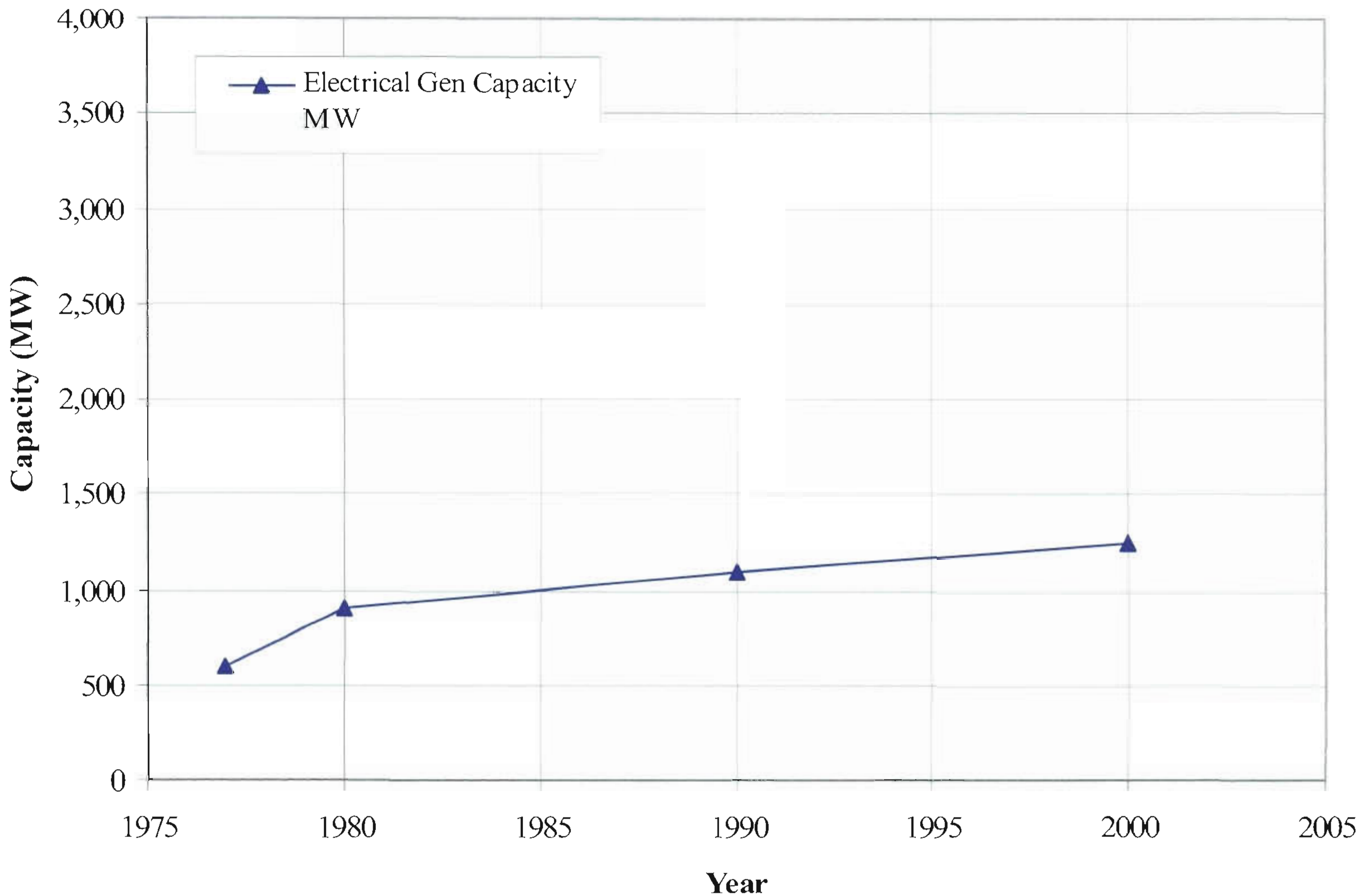

Figure 7-7
Electrical Power Generation Capacity in Palm Beach County

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Source: Golder, 2007.

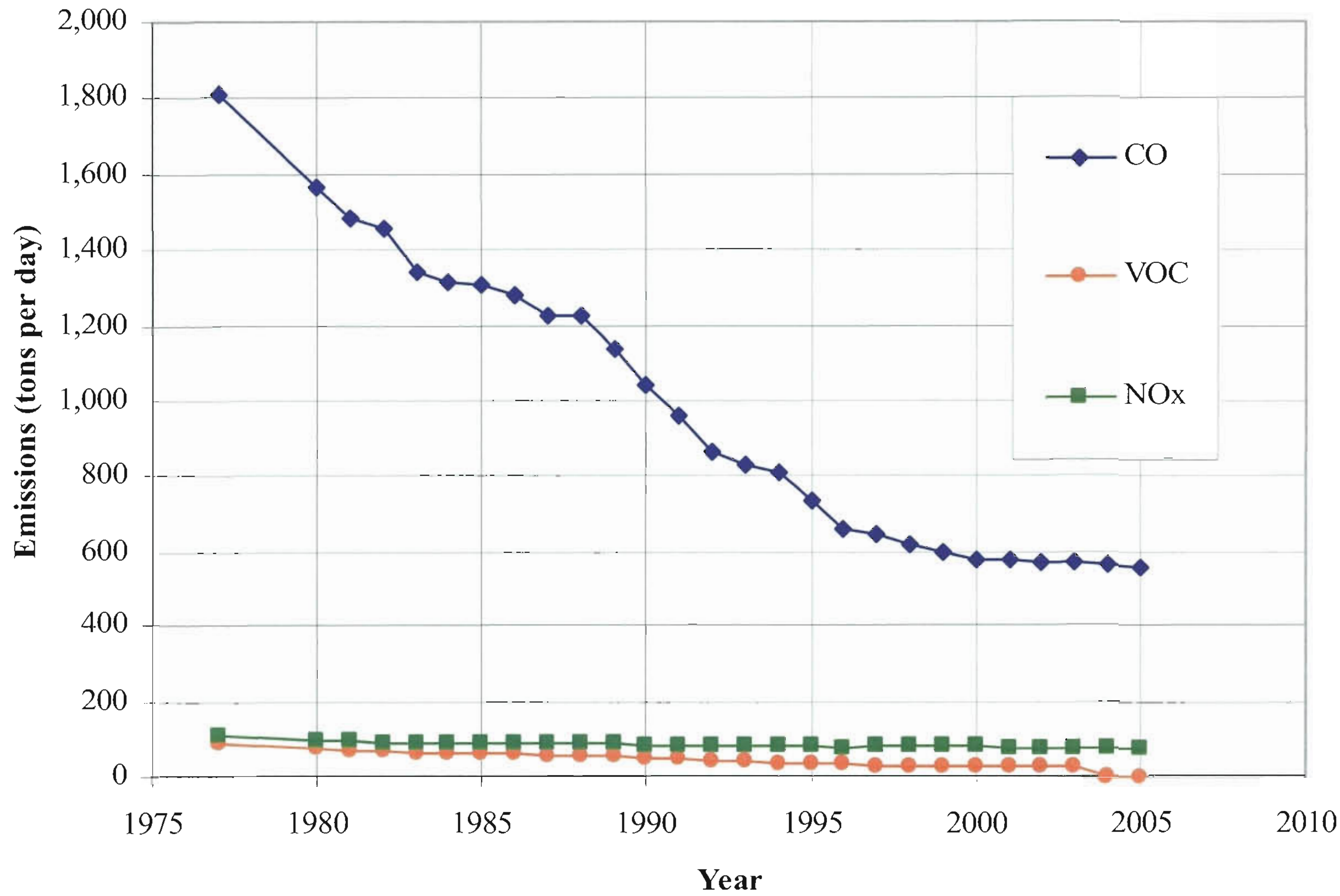

Figure 7-8
Mobile Source Emissions (Tons per Day) of CO, VOC, and NO_x, in Palm Beach County

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Source: Golder, 2007.

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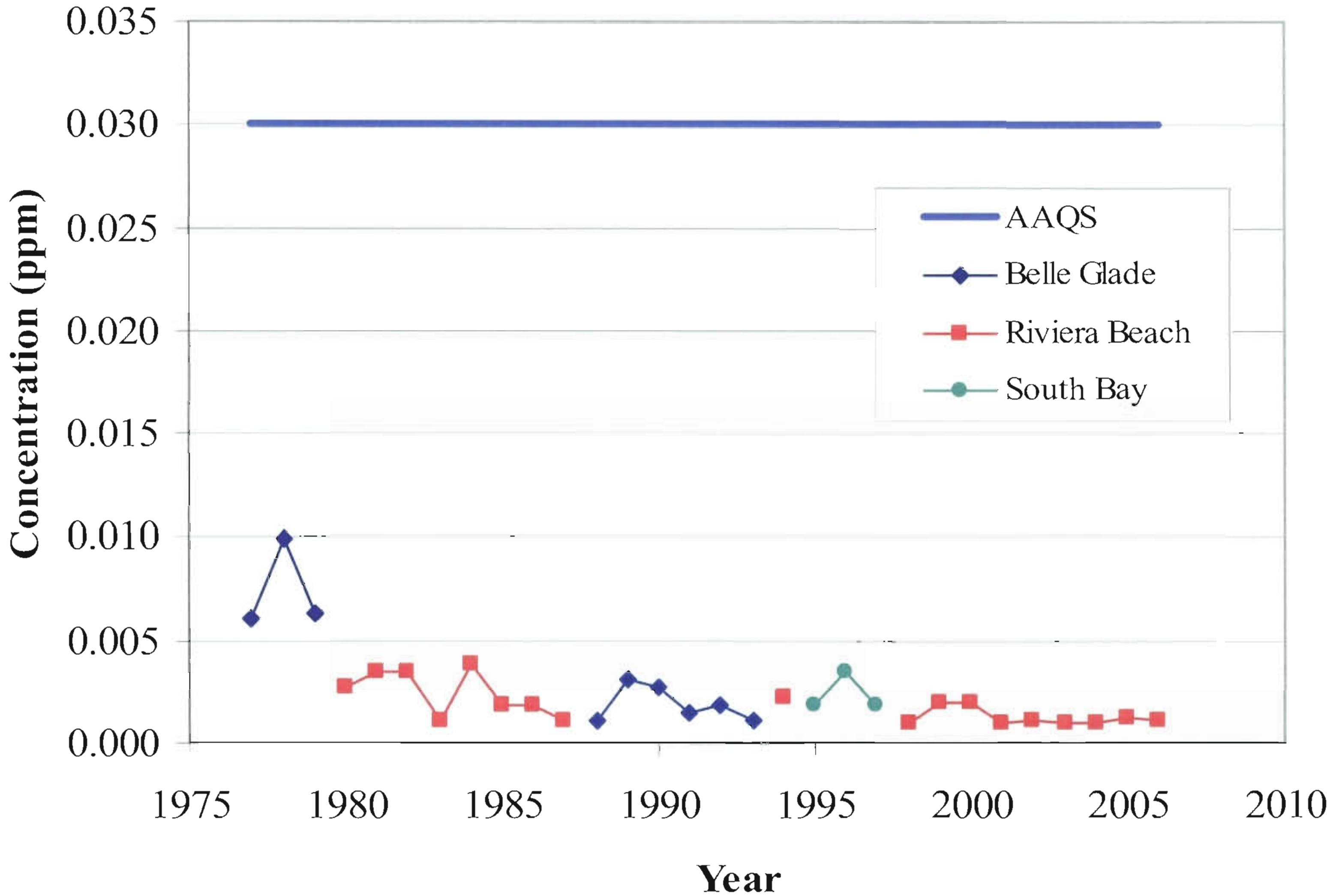

Figure 7-9
Annual Average Sulfur Dioxide Concentrations Measured from 1977 to 2006 - Palm Beach County

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Source: Golder, 2007.

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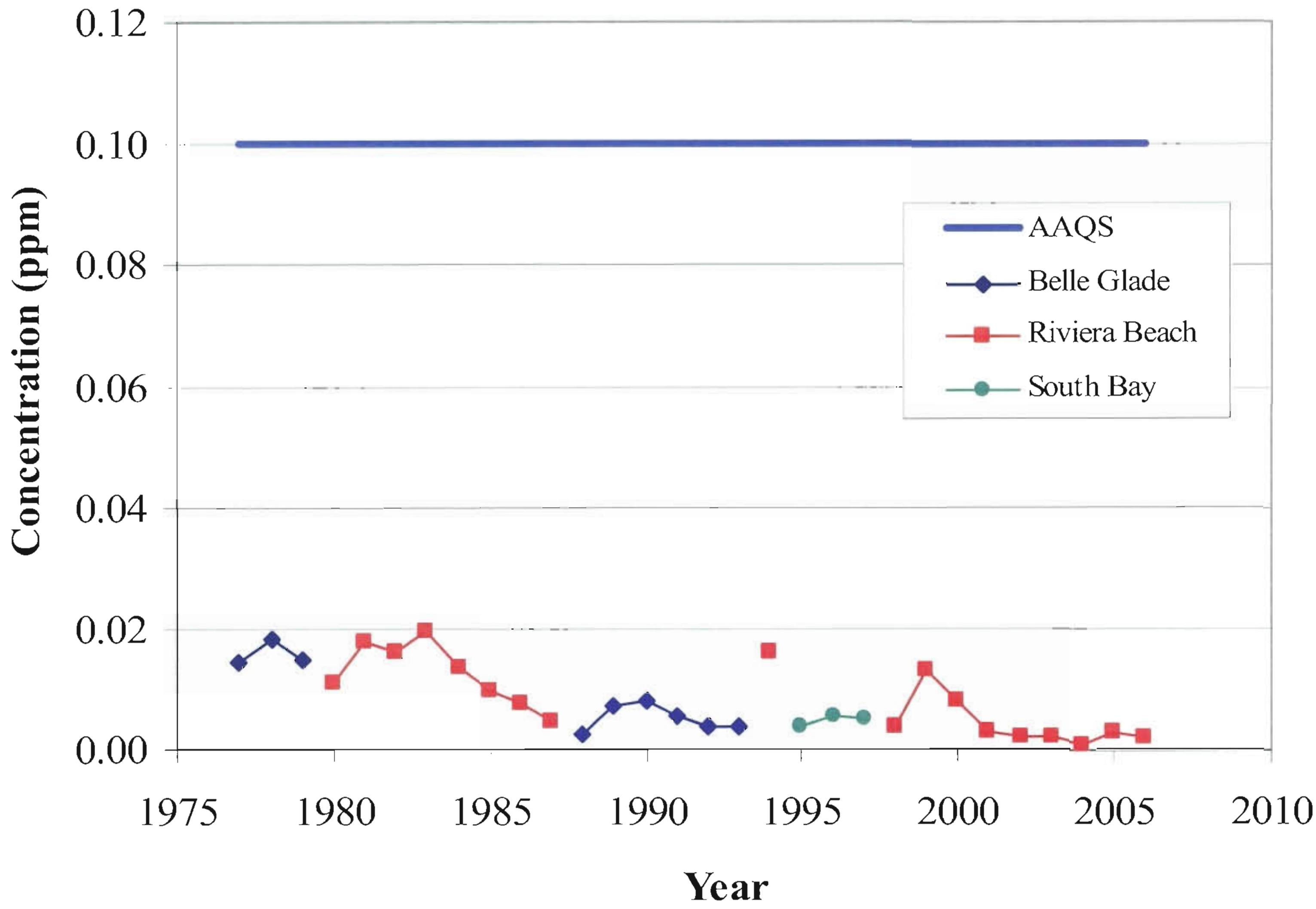

Figure 7-10
24-hour Average Sulfur Dioxide Concentrations (2nd Highest Values) Measured from 1977 to 2006 - Palm Beach County

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Source: Golder, 2007.

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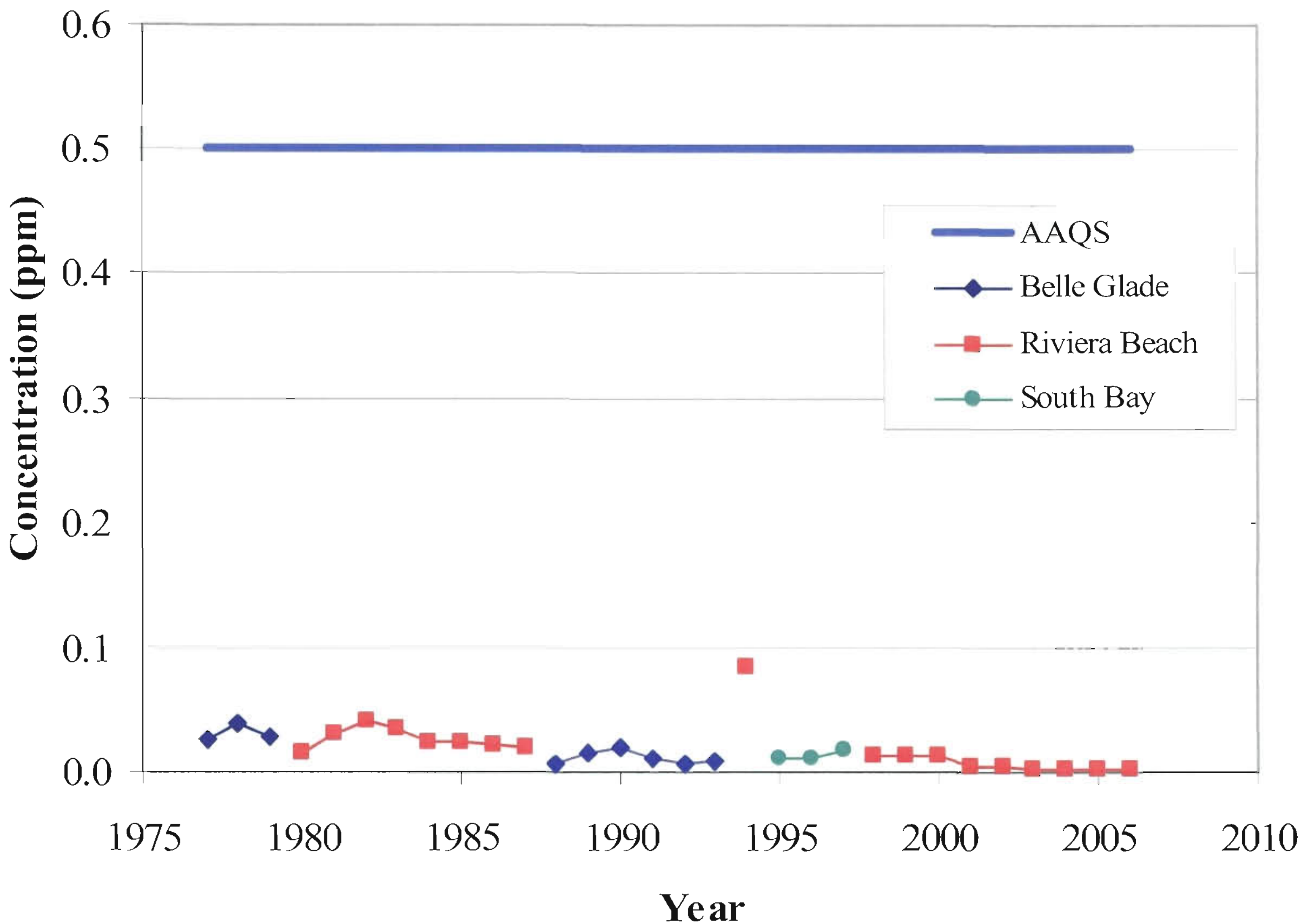

Figure 7-11
3-Hour Average Sulfur Dioxide Concentrations (2nd Highest Values) Measured from 1977 to 2006 - Palm Beach County
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Source: Golder, 2007.

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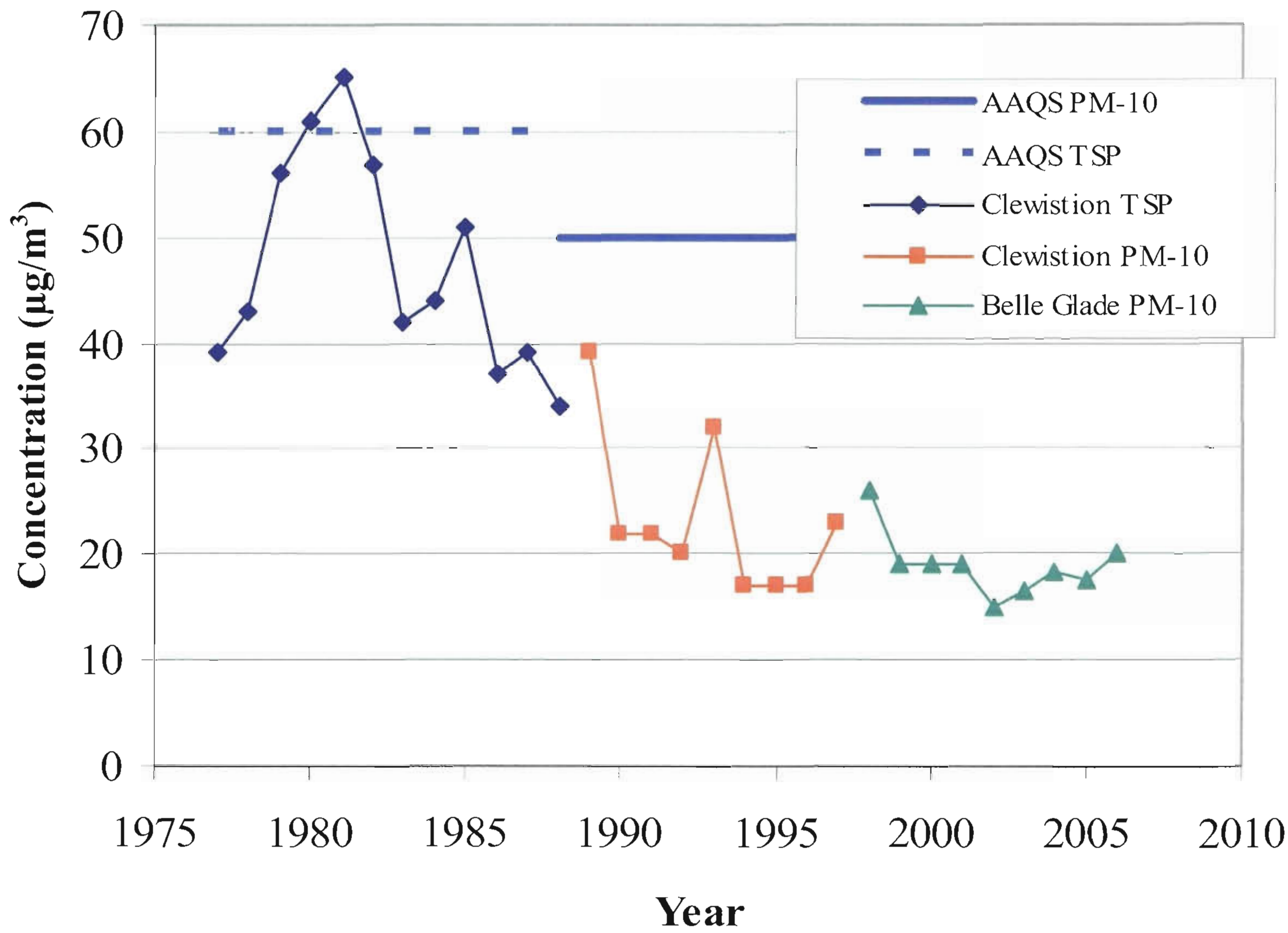

Figure 7-12
Annual Average PM_{10} and TSP Concentrations Measured from 1977 to 2006 - Hendry and Palm Beach Counties
07387652\Rpts\SCA\Apps\PSD\Figure 7-12.doc
Source: Golder, 2007.

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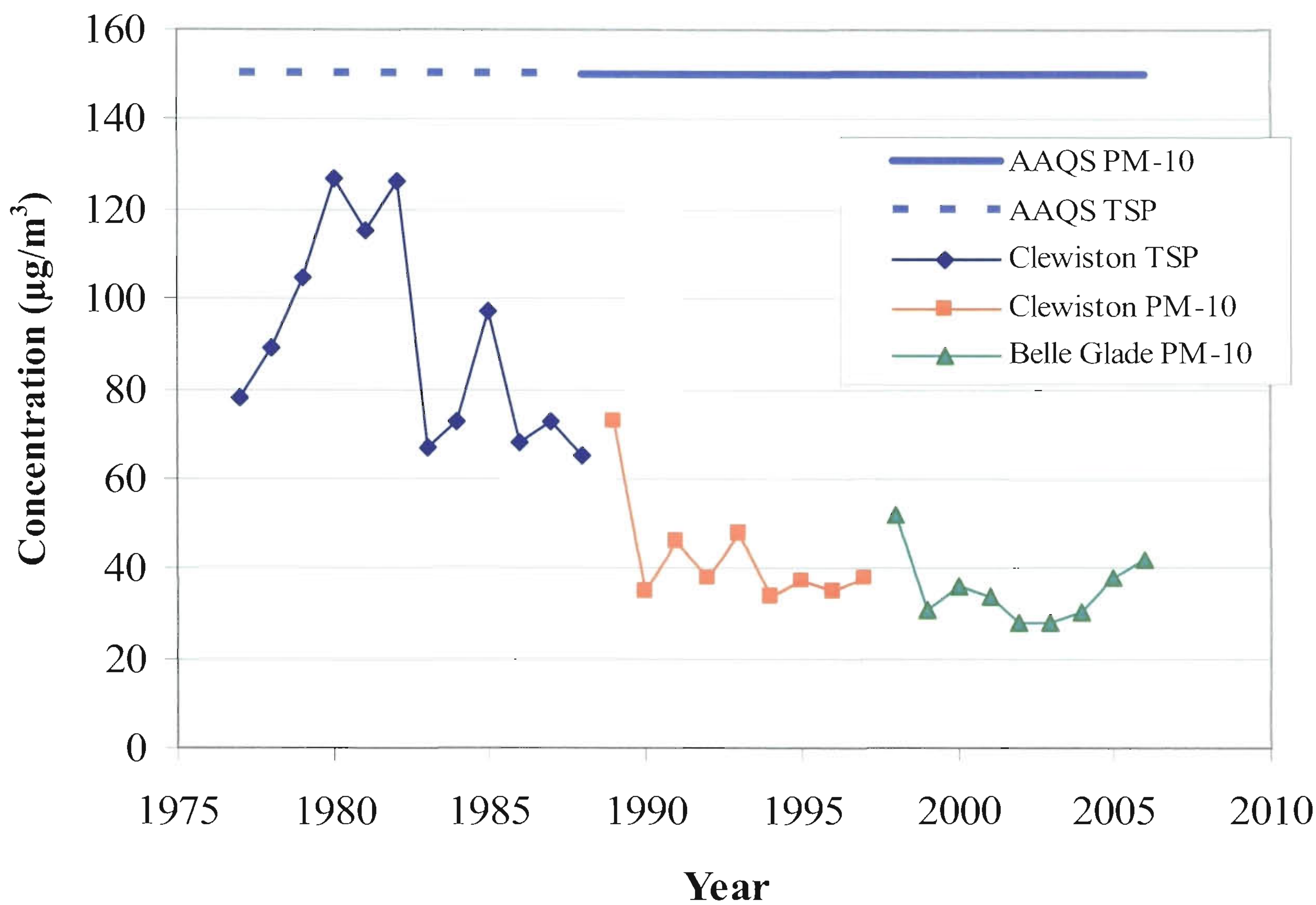

Figure 7-13
24-hour Average PM_{10} and TSP Concentrations (2nd Highest Values) Measured from 1977 to 2006 - Hendry and Palm Beach Counties

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Source: Golder, 2007.

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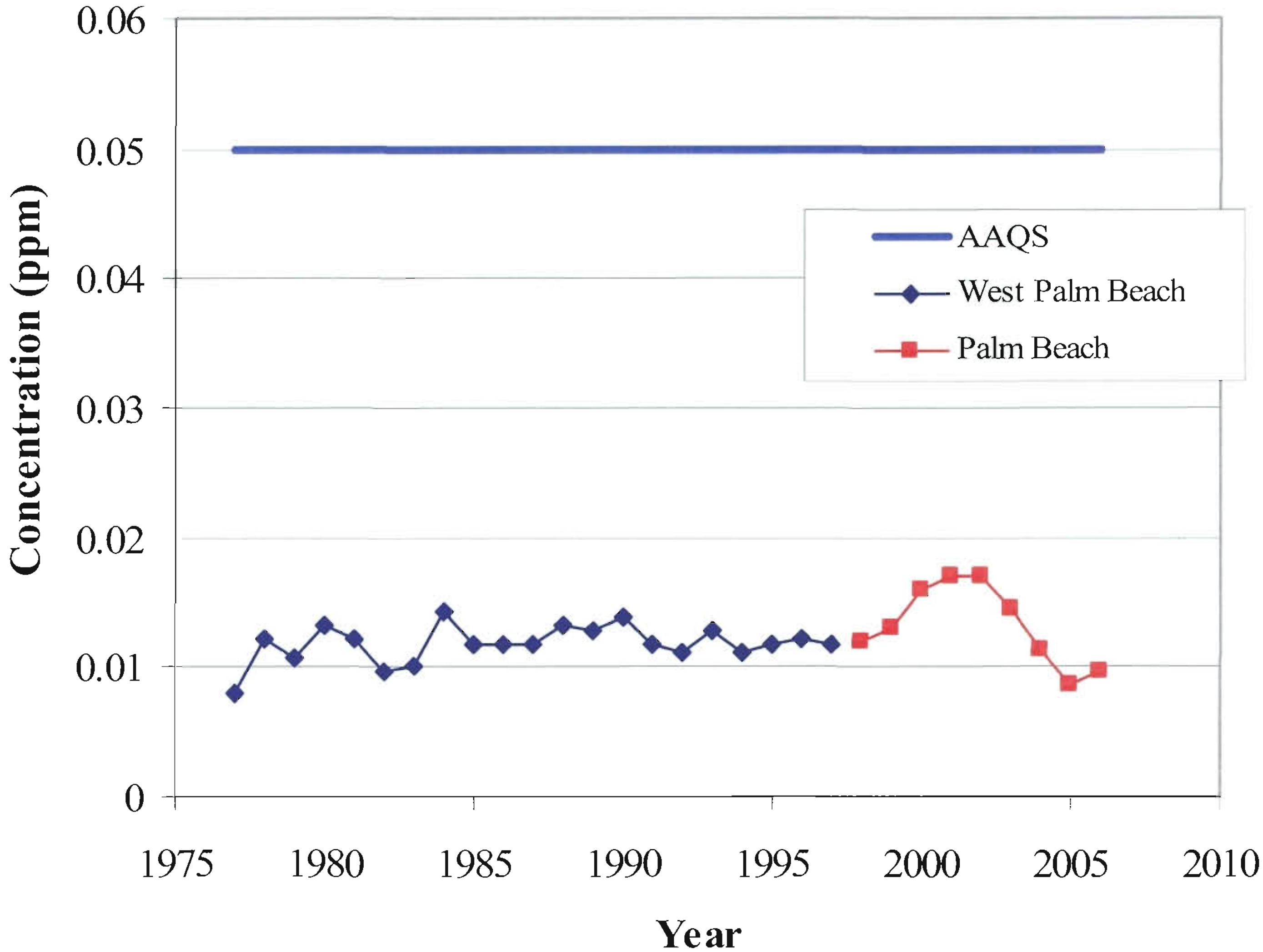

Figure 7-14
Annual Average Nitrogen Dioxide Concentrations Measured from 1977 to 2006 - Palm Beach County

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Source: Golder, 2007.

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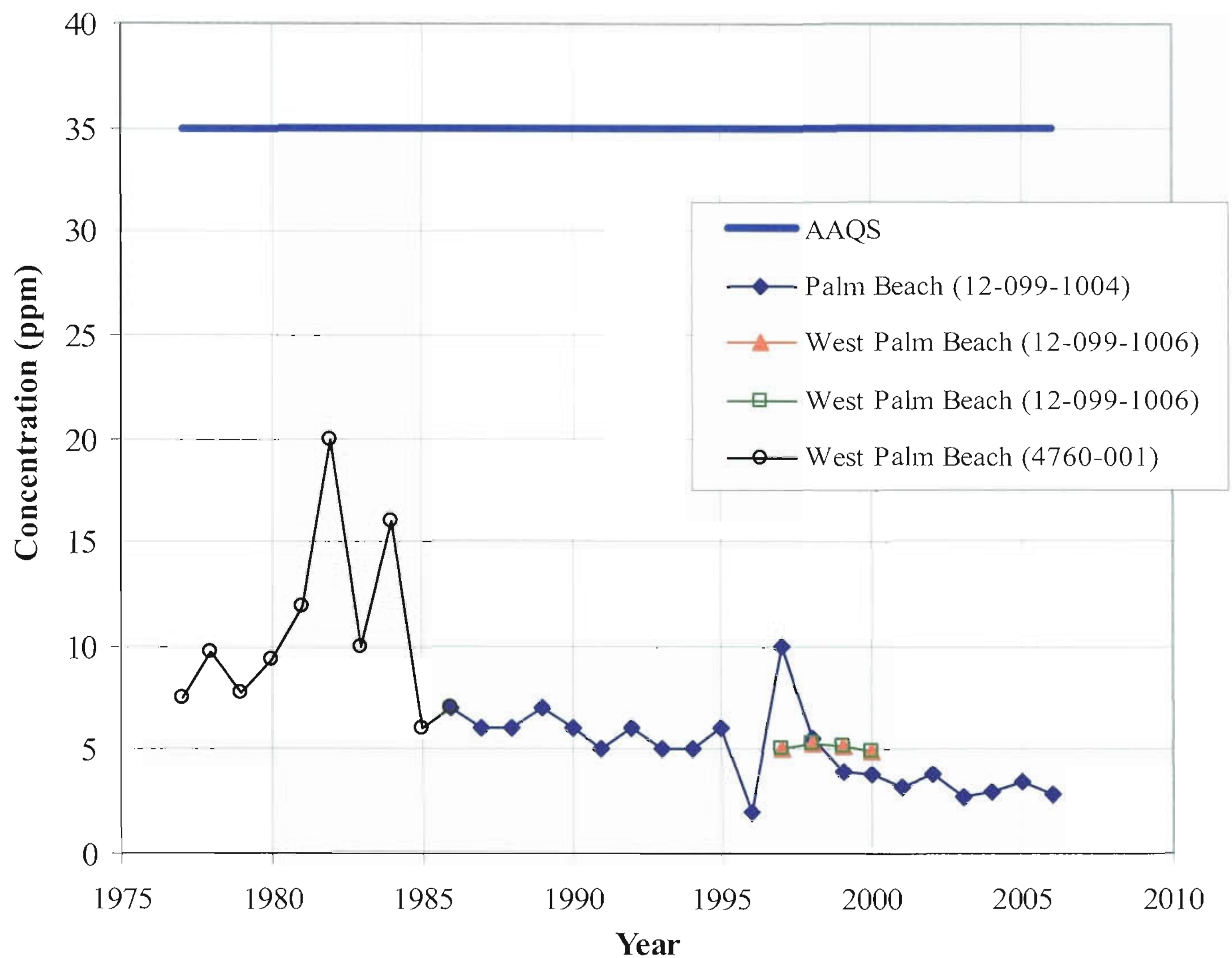

Figure 7-15
1-hour Average Carbon Monoxide Concentrations (2nd Highest Values) Measured from 1977 to 2006 - Palm Beach County

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Source: Golder, 2007.

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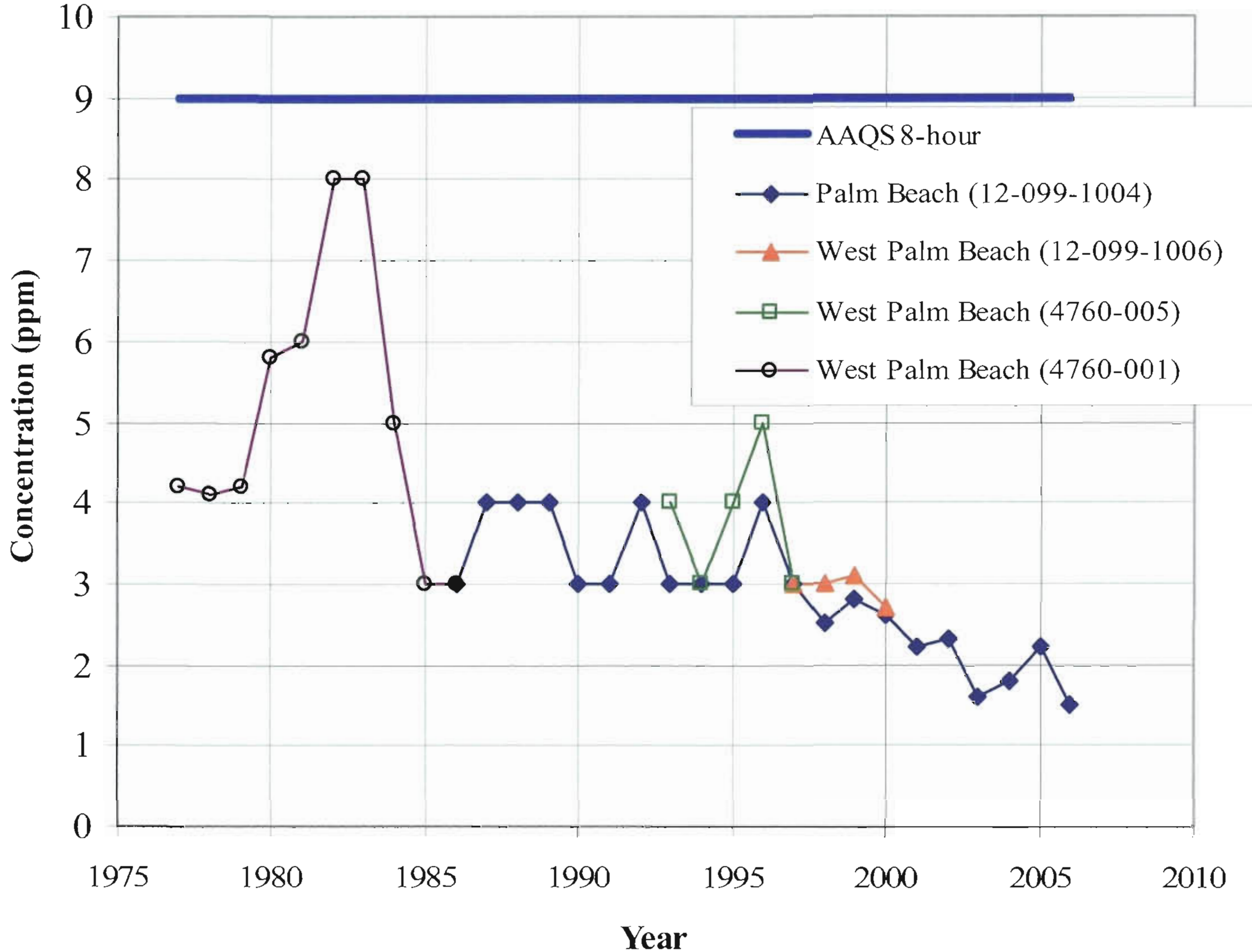

Figure 7-16
8-hour Average Carbon Monoxide Concentrations (2nd Highest Values) Measured from 1977 to 2006 - Palm Beach County
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Source: Golder, 2007.

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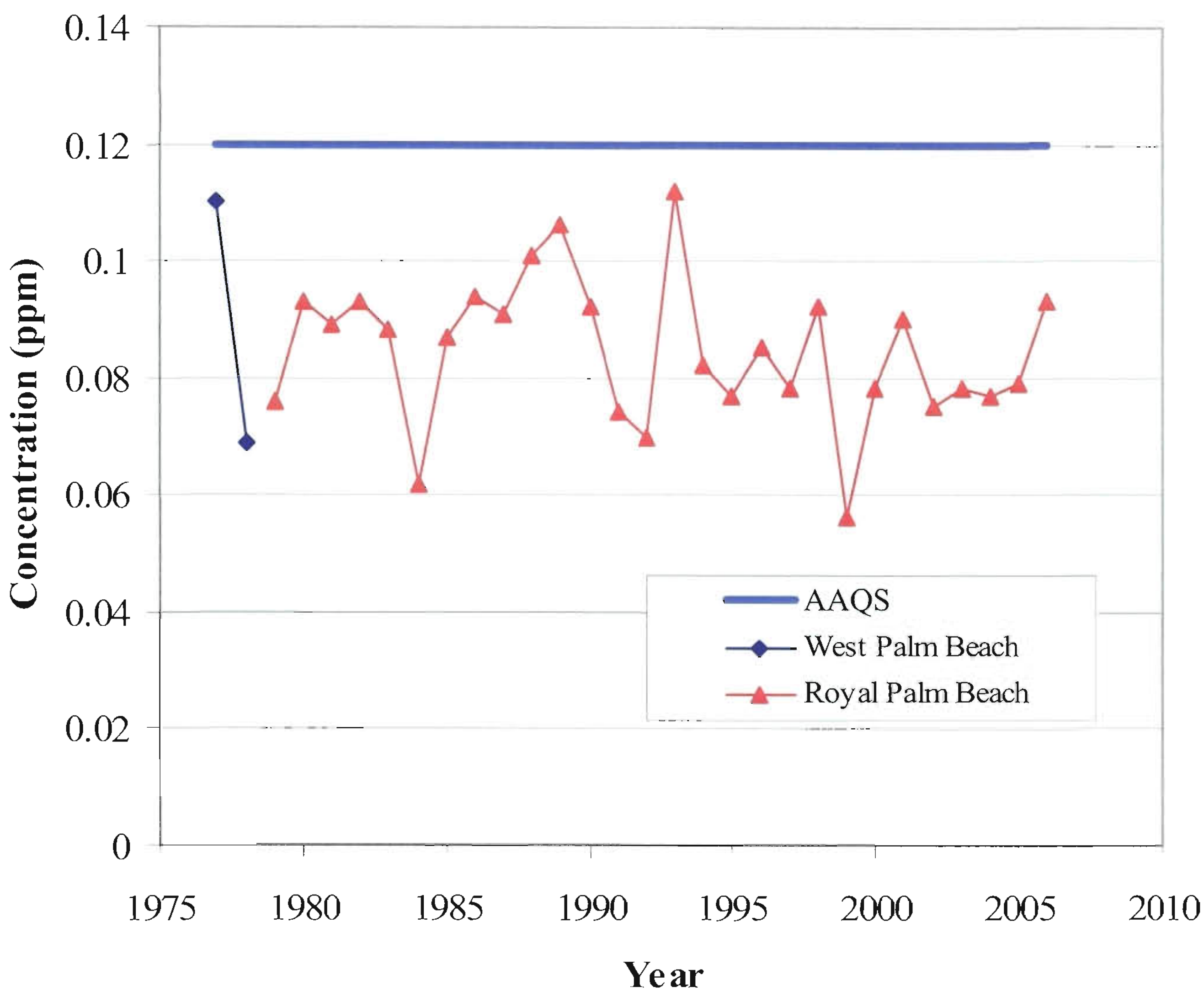

Figure 7-17
1-hour Average Ozone Concentrations (2nd Highest Values) Measured from 1977 to 2006 - Palm Beach County

07387652\Rpts\SCA\Apps\PSD\Figure 7-17.doc

Source: Golder, 2007.

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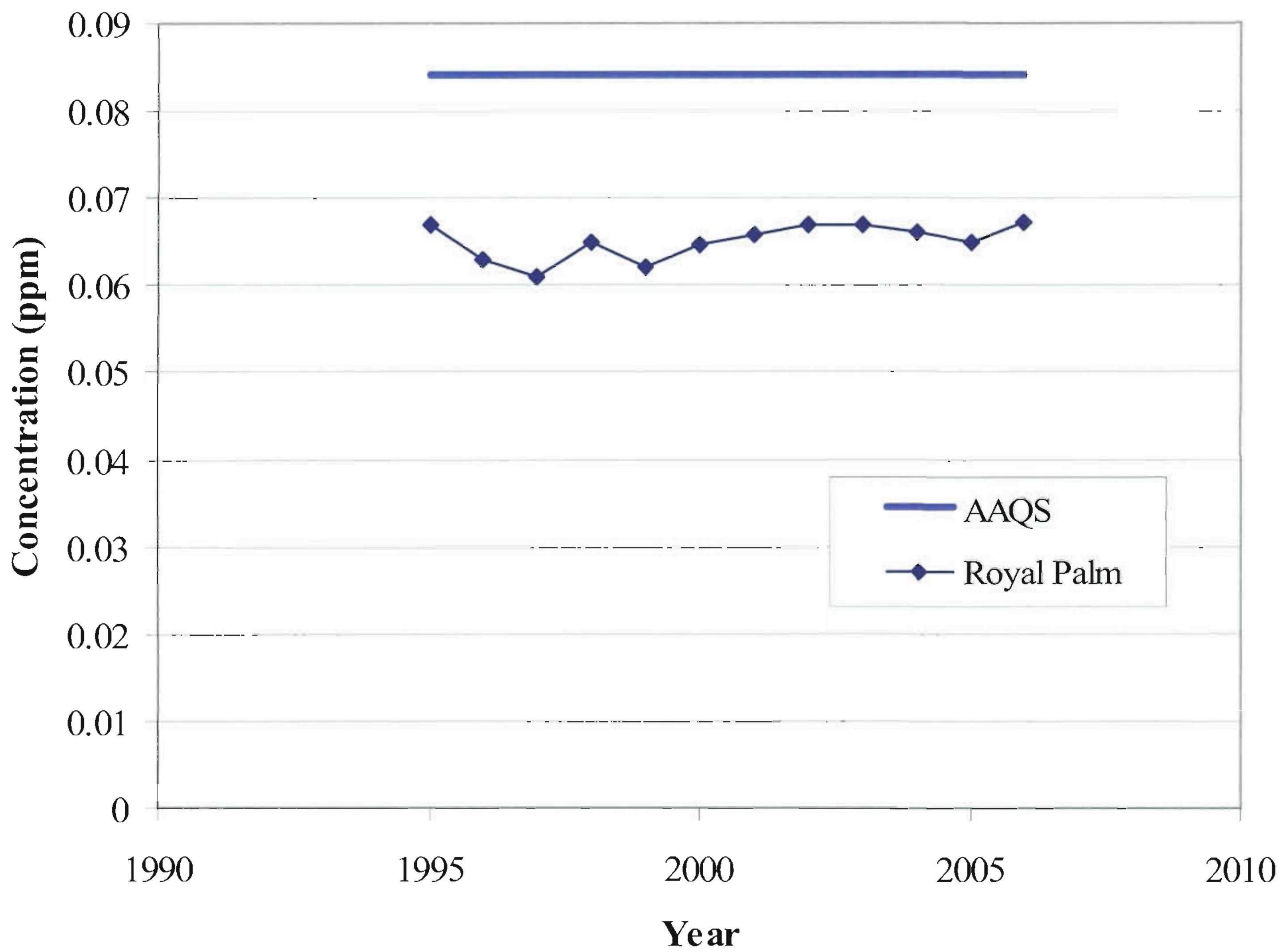

Figure 7-18
8-hour Average Ozone Concentrations (3-year Average of the 4th Highest Values) Measured from 1995 to 2006 - Palm Beach County
07387652\Rpts\SCA\Apps\PSD\Figure 7-18.doc
Source: Golder, 2007.

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APPENDIX A

EXPECTED PERFORMANCE AND EMISSION INFORMATION

EMISSION TABLES

TABLE A-1
DESIGN INFORMATION AND STACK PARAMETERS FOR THE WEST COUNTY ENERGY CENTER UNIT 3 PROJECT
MPS 501G CT, DRY LOW NO_x COMBUSTOR, NATURAL GAS, BASE LOAD

Parameter	CT Only Turbine Inlet Temperature				CT with Duct Burner Turbine Inlet Temperature			
	35 °F Case 8	59 °F Case 6	75 °F Case 4	95 °F Case 2	35 °F w/DB Case 7	59 °F w/DB Case 5	75 °F w/DB Case 3	95 °F w/DB Case 1
Combustion Turbine Performance								
Net power output (MW)	281.27	262.48	249.44	232.87	281.27	262.48	249.44	232.87
Net heat rate (Btu/kWh, LHV)	8,787	8,891	8,989	9,139	8,787	8,891	8,989	9,139
(Btu/kWh, HHV)	9,754	9,869	9,978	10,144	9,752	9,866	9,972	10,143
Heat Input (MMBtu/hr, LHV)	2,471	2,333	2,241	2,128	2,471	2,333	2,241	2,128
(MMBtu/hr, HHV)	2,743	2,590	2,488	2,362	2,743	2,590	2,488	2,362
Evaporative Cooler	Off	Off	Off	Off	Off	Off	Off	Off
Relative Humidity (%)	40	60	60	50	40	60	60	50
Fuel heating value (Btu/lb, LHV)	20,940	20,940	20,940	20,940	20,940	20,940	20,940	20,940
(Btu/lb, HHV)	23,243	23,243	23,243	23,243	23,243	23,243	23,243	23,243
(HHV/LHV)	1.110	1.110	1.110	1.110	1.110	1.110	1.110	1.110
Steam Flow (lb/hr)	NA	NA	NA	NA	NA	NA	NA	NA
Duct Burner (DB)								
Heat input (MMBtu/hr, HHV)	0	0	0	0	475	475	475	475
(MMBtu/hr, LHV)	0	0	0	0	427.9	427.9	427.9	427.9
CT/DB Exhaust Flow								
Mass Flow (lb/hr)- provided	5,083,000	4,842,000	4,670,000	4,454,000	5,102,086.0	4,861,086	4,689,086	4,473,086
- provided	NA	NA	NA	NA				
Temperature (°F) - provided	1124	1136	1145	1161	1,124	1,136	1,145	1,161
Moisture (% Vol.)	8.1	8.73	9.4	10.32	9.38	10.06	10.77	11.75
Oxygen (% Vol.)	12.10	12.05	11.96	11.82	10.69	10.57	10.43	10.22
Molecular Weight	28.45	28.38	28.30	28.20	28.37	28.29	28.22	28.11
Fuel Usage								
Fuel usage (lb/hr) = Heat Input (MMBtu/hr) x 1,000,000 Btu/MMBtu (Fuel Heat Content, Btu/lb (LHV))								
Heat input (MMBtu/hr, LHV)	2,471	2,333	2,241	2,128	2,471	2,333	2,241	2,128
Heat content (Btu/lb, LHV)	20,940	20,940	20,940	20,940	20,940	20,940	20,940	20,940
Fuel usage (lb/hr)- calculated	118,004	111,414	107,020	101,624	118,004	111,414	107,020	101,624
Heat content (Btu/cf, LHV)- assumed	933	933	933	933	933	933	933	933
Fuel density (lb/ft^3)	0.0446	0.0446	0.0446	0.0446	0.0446	0.0446	0.0446	0.0446
Fuel usage (cf/hr)- calculated	2,647,288	2,499,443	2,400,879	2,279,818	2,647,288	2,499,443	2,400,879	2,279,818
Fuel Usage - Duct Burner Only								
Fuel usage (lb/hr)- calculated	0	0	0	0	20,436	20,436	20,436	20,436
Fuel usage (cf/hr)- calculated	0	0	0	0	458,458	458,458	458,458	458,458
HRSG Stack								
HRSG - Stack Height (ft)	149	149	149	149	149	149	149	149
Diameter (ft)	22	22	22	22	22	22	22	22
HRSG Stack Flow Conditions								
Velocity (ft/sec) = Volume flow (acfm) / [((diameter)^2 /4) x 3.14159] / 60 sec/min								
Mass flow (lb/hr)	5,083,000	4,842,000	4,670,000	4,454,000	5,102,086	4,861,086	4,689,086	4,473,086
HRSG Stack Temperature (°F)	196	195	195	195	186	185	185	184
Molecular weight	28.45	28.38	28.30	28.20	28.37	28.29	28.22	28.11
Volume flow (acfm)	1,426,187	1,359,834	1,314,876	1,259,433	1,413,375	1,347,583	1,303,739	1,247,048
Diameter (ft)	22	22	22	22	22	22	22	22
Velocity (ft/sec)- calculated	62.5	59.6	57.6	55.2	62.0	59.1	57.2	54.7

Note: Universal gas constant = 1,545.7 ft-lb(force)/°R; atmospheric pressure = 2,116.8 lb(force)/ft^2; 14.7 lb/ft^3.

Source: MPS, 2005; CT Performance Data; Golder, 2007 - DB Calculations.

TABLE A-2
MAXIMUM EMISSIONS FOR CRITERIA POLLUTANTS FOR THE WEST COUNTY ENERGY CENTER UNIT 3 PROJECT
MPS 501 G CT, DRY LOW NO_x COMBUSTOR, NATURAL GAS, BASE LOAD

Parameter	CT Only Turbine Inlet Temperature				CT with Duct Burner Turbine Inlet Temperature			
	35 °F Case 8	59 °F Case 6	75 °F Case 4	95 °F Case 2	35 °F w/DB Case 7	59 °F w/DB Case 5	75 °F w/DB Case 3	95 °F w/DB Case 1
Particulate from CT, DB, and HRSG								
Total PM_{10} = PM_{10} (front half) + PM_{10} ($(NH_4)_2SO_4$) in HRSG only (back-half)								
a. PM_{10} (front half) (lb/hr)								
CT- provided	4.0	3.5	3.4	3.2	4.0	3.5	3.4	3.2
DB (lb/hr) - calculated	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4
Total CT/DB emission rate (lb/hr)	4.0	3.5	3.4	3.2	6.4	5.9	5.8	5.6
b. PM_{10} ($(NH_4)_2SO_4$) from HRSG only (back half) = Sulfur trioxide from conversion of SO_2 converts to ammonium sulfate (= PM_{10})								
Particulate from conversion of SO_2 = SO_2 emissions (lb/hr) x conversion of SO_2 to SO_3 in CT and in SCR x lb SO_3/lb SO_2 x conversion of SO_3 to $(NH_4)_2SO_4$ x lb $(NH_4)_2SO_4$/ lb SO_3								
CT SO_2 emission rate (lb/hr)- calculated	15.1	14.3	13.7	13.0	15.1	14.3	13.7	13.0
Conversion (%) from SO_2 to SO_3 in CT	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
DB SO_2 emission rate (lb/hr)- calculated	--	--	--	--	2.6	2.6	2.6	2.6
Conversion (%) from SO_2 to SO_3 in DB	--	--	--	--	20.0	20.0	20.0	20.0
Remaining SO_2 (lb/hr) after conversion - calculated	13.6	12.9	12.3	11.7	15.7	15.0	14.4	13.8
Conversion (%) from SO_2 to SO_3 in SCR	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
MW SO_3/ SO_2 (80/64)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Conversion (%) from SO_3 to $(NH_4)_2(SO_4)$	100	100	100	100	100	100	100	100
MW $(NH_4)_2$ SO_4/ SO_3 (132/80)	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
HRSG Particulate as $(NH_4)_2(SO_4)$ (lb/hr)- calculated	3.96	3.74	3.59	3.41	5.17	4.95	4.80	4.62
Total HRSG stack emission rate (lb/hr) [a + b]	8.0	7.2	7.0	6.6	11.5	10.8	10.6	10.2
(lb/mmBtu, HHV)	NA	NA	NA	NA	NA	NA	NA	NA
Sulfur Dioxide								
SO_2 (lb/hr)= Natural gas (scf/hr) x sulfur content(gr/100 scf) x 1 lb/7000 gr x (lb SO_2 /lb S) /100								
Fuel use (cf/hr)	2,647,288	2,499,443	2,400,879	2,279,818	3,105,746	2,957,900	2,859,337	2,738,275
Sulfur content (grains/ 100 cf)	2	2	2	2	2	2	2	2
lb SO_2 /lb S (64/32)	2	2	2	2	2	2	2	2
CT/DB emission rate (lb/hr) - calculated	15.1	14.3	13.7	13.0	NA	NA	NA	NA
HRSG stack emission rate (lb/hr) - calculated	15.1	14.3	13.7	13.0	17.7	16.9	16.3	15.6
Nitrogen Oxides								
NOx (lb/hr) = NOx (ppm actual) x Volume flow (acfm) x 46 (mole. wgt NOx) x 2116.8 lb/ft^2 (pressure) / [1545.7 (gas constant, R) x Actual Temp. (°R)] x 60 min/hr								
NOx (ppm actual) = NOx (ppmd @ 15%O_2) x [(20.9 - O_2 dry)/(20.9 - 15)]								
Oxygen (% dry)(O_2 dry) = Oxygen (%)/(1-Moisture (%))								
Basis, ppmvw - calculated	19.7	19.6	19.6	19.6	23.6	23.8	24.1	24.6
CT/DB, ppmvd (@15% O_2 - provided	15	15	15	15	15.3	15.4	15.4	15.6
Moisture (%)	8.1	8.73	9.4	10.32	9.38	10.06	10.77	11.75
Oxygen (%)	12.1	12.05	11.96	11.82	10.69	10.57	10.43	10.22
Oxygen (%) dry	13.17	13.20	13.20	13.18	11.79	11.75	11.69	11.59
Turbine Flow (acfm)	3,443,805	3,314,015	3,223,012	3,115,983	3,466,771	3,312,063	3,203,807	3,067,825
Turbine Exhaust Temperature (°F)	1,124	1,136	1,145	1,161	1,124	1,136	1,145	1,161
CT/DB emission rate (lb/hr) - calculated	161.6	153.6	148.6	142.6	194.8	186.8	181.8	175.9
HRSG Stack emission rate, ppmvd @ 15% O_2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
HRSG stack emission rate (lb/hr) - calculated	21.5	20.5	19.8	19.0	25.5	24.3	23.6	22.6
Carbon Monoxide								
Oxygen (% dry)(O_2 dry) = Oxygen (%)/(1-Moisture (%))								
CO (ppmv wet or actual) = CO (ppmvd @ 15%O_2) x [(20.9 - O_2 dry)/(20.9 - 15)]								
CO (lb/hr) = CO (ppm actual) x Volume flow (acfm) x 28 (mole. wgt CO) x 2116.8 lb/ft^2 (pressure) / [1545.7 (gas constant, R) x Actual Temp. (°R)] x 60 min/hr								
Basis, ppmvw - calculated	5.37	5.35	5.35	5.36	9.1	9.3	9.5	9.8
Basis, ppmvd @ 15% O2 - provided	4.10	4.10	4.10	4.10	5.9	6.0	6.1	6.2
Moisture (%)	8.10	8.73	9.40	10.32	9.38	10.06	10.77	11.75
Oxygen (%)	12.10	12.05	11.96	11.82	10.69	10.57	10.43	10.22
Oxygen (%) dry	13.17	13.20	13.20	13.18	11.79	11.75	11.69	11.59
Turbine Flow (acfm)	3,443,805	3,314,015	3,223,012	3,115,983	3,466,771	3,312,063	3,203,807	3,067,825
Turbine Exhaust Temperature (°F)	1,124	1,136	1,145	1,161	1,124	1,136	1,145	1,161
CT/DB emission rate (lb/hr) - calculated	26.9	25.6	24.7	23.7	45.9	44.6	43.7	42.7
HRSG Stack emission rate, ppmvd @ 15% O_2 - provided	4.1	4.1	4.1	4.1	7.6	7.6	7.6	7.6
HRSG Stack emission rate (lb/hr)- calculated	26.9	25.6	24.7	23.7	59.1	56.3	54.5	52.2
Volatile Organic Compounds								
Oxygen (% dry)(O_2 dry) = Oxygen (%)/(1-Moisture (%))								
VOC (ppmv wet or actual) = VOC (ppmvd @ 15%O_2) x [(20.9 - O_2 dry)/(20.9 - 15)]								
VOC (lb/hr) = VOC (ppm actual) x Volume flow (acfm) x 16 (mole. wgt CH4) x 2116.8 lb/ft^2 (pressure) / [1545.7 (gas constant, R) x Actual Temp. (°R)] x 60 min/hr								
Basis, ppmvw - calculated	1.57	1.57	1.57	1.57	2.4	2.4	2.5	2.5
Basis, ppmvd @ 15% O2 - provided	1.20	1.20	1.20	1.20	1.5	1.6	1.6	1.6
Moisture (%)	8.10	8.73	9.40	10.32	9.38	10.06	10.77	11.75
Oxygen (%) wet	12.10	12.05	11.96	11.82	10.69	10.57	10.43	10.22
Oxygen (%) dry	13.17	13.20	13.20	13.18	11.79	11.75	11.69	11.59
Turbine Flow (acfm)	3,443,805	3,314,015	3,223,012	3,115,983	3,466,771	3,312,063	3,203,807	3,067,825
Turbine Exhaust Temperature (°F)	1,124	1,136	1,145	1,161	1,124	1,136	1,145	1,161
CT/DB emission rate (lb/hr) - calculated	4.50	4.27	4.13	3.97	6.87	6.65	6.51	6.34
HRSG Stack emission rate, ppmvd @ 15% O_2 - provided	1.2	1.2	1.2	1.2	1.6	1.6	1.6	1.6
HRSG Stack emission rate (lb/hr)- calculated	4.5	4.3	4.1	4.0	7.1	6.8	6.6	6.3
Sulfuric Acid Mist								
Sulfuric Acid Mist (lb/hr)= SO_2 emission (lb/hr) x Conversion to H_2SO_4 (% by weight)/100								
CT SO_2 emission rate (lb/hr) - calculated	15.1	14.3	13.7	13.0	15.1	14.3	13.7	13.0
CT Conversion to H_2SO_4 (% by weight) - provided	10	10	10	10	10	10	10	10
DB SO_2 emission rate (lb/hr) - provided	0	0	0	0	2.6	2.6	2.6	2.6
DB Conversion to H_2SO_4 (%) - provided	20	20	20	20	20	20	20	20
SCR SO_2 (lb/hr)(remaining SO_2 after conversion) - calc	13.6	12.9	12.3	11.7	15.7	15.0	14.4	13.8
SCR Conversion to H_2SO_4 (% by weight) - provided	3	3	3	3	3	3	3	3
HRSG Stack emission rate (lb/hr)	2.94	2.78	2.67	2.53	3.84	3.68	3.57	3.43
Lead								
Lead (lb/hr) = NA								
Emission Rate Basis	NA	NA	NA	NA	NA	NA	NA	NA
Emission rate (lb/hr)	NA	NA	NA	NA	NA	NA	NA	NA

Note: ppmvd= parts per million, volume dry; O_2= oxygen.

Source: MPS, 2005; CT Performance Data; Golder Associates, 2007 - DB Calculations.

TABLE A-3
DESIGN INFORMATION AND STACK PARAMETERS FOR THE WEST COUNTY ENERGY CENTER UNIT 3 PROJECT MPS 501G CT, DRY LOW NO_x COMBUSTOR, NATURAL GAS, 75% LOAD

Parameter	Turbine Inlet Temperature			
	35 °F Case 12	59 °F Case 11	75 °F Case 10	95 °F Case 9
Combustion Turbine Performance				
Net power output (MW)	207.41	193.55	183.93	171.7
Net heat rate (Btu/kWh, LHV)	9,078	9,262	9,422	9,658
(Btu/kWh, HHV)	10,077	10,281	10,458	10,720
Heat Input (MMBtu/hr, LHV)	1,883	1,793	1,732	1,658
(MMBtu/hr, HHV)	2,090	1,990	1,923	1,840
Relative Humidity (%)	40	60	60	50
Fuel heating value (Btu/lb, LHV)	20,940	20,940	20,940	20,940
(Btu/lb, HHV)	23,243	23,243	23,243	23,243
(HHV/LHV)	1.110	1.110	1.110	1.110
CT Exhaust Flow				
Mass flow (lb/hr)- provided	4,156,000	3,998,000	3,885,000	3,742,000
- provided	NA	NA	NA	NA
Temperature (°F) - provided	1,082	1,098	1,110	1,126
Moisture (% Vol.)	7.57	8.17	8.84	9.76
Oxygen (% Vol.)	12.72	12.68	12.58	12.47
Molecular Weight	28.49	28.41	28.34	28.24
Fuel Usage				
Fuel usage (lb/hr) = Heat Input (MMBtu/hr) x 1,000,000 Btu/MMBtu (Fuel Heat Content, Btu/lb (LHV))				
Heat input (MMBtu/hr, LHV)	1,883	1,793	1,732	1,658
Heat content (Btu/lb, LHV)	20,940	20,940	20,940	20,940
Fuel usage (lb/hr)- calculated	89,924	85,626	82,713	79,179
Heat content (Btu/cf, LHV)- assumed	933	933	933	933
Fuel density (lb/ft^3)	0.0446	0.0446	0.0446	0.0446
Fuel usage (cf/hr)- calculated	2,018,064	1,921,609	1,856,233	1,776,925
HRSG Stack				
HRSG - Stack Height (ft)	149	149	149	149
Diameter (ft)	22	22	22	22
HRSG Stack Flow Conditions				
Velocity (ft/sec) = Volume flow (acfm) / [((diameter)^2 /4) x 3.14159] / 60 sec/min				
Mass flow (lb/hr)- provided	4,156,000	3,998,000	3,885,000	3,742,000
HRSG Stack Temperature (°F)	184	185	186	187
Molecular weight	28.49	28.41	28.34	28.24
CT volume flow (acfm)	1,143,453	1,104,480	1,077,801	1,043,505
Diameter (ft)	22	22	22	22
Velocity (ft/sec)- calculated	50.1	48.4	47.3	45.8

Note: Universal gas constant = 1,545.7 ft-lb(force)/°R; atmospheric pressure = 2,116.8 lb(force)/ft^2; 14.7 lb/ft^3.

Source: MPS, 2005; CT Performance Data; Golder Associates, 2007.

TABLE A-4
MAXIMUM EMISSIONS FOR CRITERIA POLLUTANTS FOR THE WEST COUNTY ENERGY CENTER UNIT 3 PROJECT
MPS 501G CT, DRY LOW NO_x COMBUSTOR, NATURAL GAS, 75% LOAD

Parameter	Turbine Inlet Temperature 35 °F Case 12	59 °F Case 11	75 °F Case 10	95 °F Case 9
Particulate from CT and HRSG				
Total PM_{10} = PM_{10} (front half) + PM_{10} $((NH_4)_2SO_4)$ in HRSG only (back-half)				
a. PM_{10} (front half) (lb/hr)				
Particulate from CT- provided	3.0	3.0	3.0	3.0
b. PM_{10} $((NH_4)_2SO_4)$ from HRSG only (back half) = Sulfur trioxide from conversion of SO_2 converts to ammonium sulfate (= PM_{10})				
Particulate from conversion of SO_2 = SO_2 emissions (lb/hr) x conversion of SO_2 to SO_3 in CT and in SCR x lb SO_3/lb SO_2 x conversion of SO_3 to $(NH_4)_2SO_4$ x lb $(NH_4)_2SO_4$/ lb SO_3				
SO_2 emission rate (lb/hr)- calculated	11.5	11.0	10.6	10.2
Conversion (%) from SO_2 to SO_3	10.0	10.0	10.0	10.0
Remaining SO_2 (lb/hr) in CT after conversion - calculated	10.4	9.9	9.5	9.1
Conversion (%) from SO_2 to SO_3 in SCR	3.0	3.0	3.0	3.0
MW SO_3/ SO_2 (80/64)	1.3	1.3	1.3	1.3
Conversion (%) from SO_3 to $(NH_4)_2(SO_4)$	100	100	100	100
MW $(NH_4)_2$ SO_4/ SO_3 (132/80)	1.7	1.7	1.7	1.7
HRSG Particulate as $(NH_4)_2(SO_4)$ (lb/hr)- calculated	3.02	2.88	2.78	2.66
Total HRSG stack emission rate (lb/hr) [a + b]	6.0	5.9	5.8	5.7
(lb/mmBtu, HHV)	NA	NA	NA	NA
Sulfur Dioxide				
SO_2 (lb/hr)= Natural gas (scf/hr) x sulfur content(gr/100 scf) x 1 lb/7000 gr x (lb SO_2 /lb S) /100				
Fuel use (cf/hr)	2,018,064	1,921,609	1,856,233	1,776,925
Sulfur content (grains/ 100 cf)	2	2	2	2
lb SO_2 /lb S (64/32)	2	2	2	2
HRSG Stack emission rate (lb/hr)- calculated	11.5	11.0	10.6	10.2
Nitrogen Oxides				
NOx (lb/hr) = NOx (ppm actual) x Volume flow (acfm) x 46 (mole. wgt NOx) x 2116.8 lb/ft² (pressure) / [1545.7 (gas constant, R) x Actual Temp. (°R)] x 60 min/hr				
NOx (ppm actual) = NOx (ppmd @ 15%O_2) x [(20.9 - O_2 dry)/(20.9 - 15)]				
Oxygen (%, dry)(O_2 dry) = Oxygen (%)/(1-Moisture (%))				
Basis, ppmvw - calculated	18.1	18.0	18.1	18.0
CT / DB, ppmvd @15% O_2 - provided	15	15	15	15
Moisture (%)	7.57	8.17	8.84	9.76
Oxygen (%)	12.72	12.68	12.58	12.47
Oxygen (%) dry	13.76	13.81	13.80	13.82
Turbine Flow (acfm)	2,737,895	2,667,876	2,619,423	2,557,958
Turbine Exhaust Temperature (°F)	1,082	1,098	1,110	1,126
CT Emission rate (lb/hr) - calculated	121.8	116.7	113.8	109.8
HRSG Stack emission rate, ppmvd @ 15% O_2	2.0	2.0	2.0	2.0
HRSG Stack emission rate (lb/hr) - calculated	16.2	15.6	15.2	14.6
Carbon Monoxide				
Oxygen (%, dry)(O_2 dry) = Oxygen (%)/(1-Moisture (%))				
CO (ppmv wet or actual) = CO (ppmvd @ 15%O_2) x [(20.9 - O_2 dry)/(20.9 - 15)]				
CO (lb/hr) = CO (ppm actual) x Volume flow (acfm) x 28 (mole. wgt CO) x 2116.8 lb/ft² (pressure) / [1545.7 (gas constant, R) x Actual Temp. (°R)] x 60 min/hr				
Basis, ppmvw	12.10	12.02	12.03	12.00
Basis, ppmvd @ 15% O2 - provided	10	10	10	10
Moisture (%)	7.57	8.17	8.84	9.76
Oxygen (%)	12.72	12.68	12.58	12.47
Oxygen (%) dry	13.76	13.81	13.80	13.82
Turbine Flow (acfm)	2,737,895	2,667,876	2,619,423	2,557,958
Turbine Exhaust Temperature (°F)	1,082	1,098	1,110	1,126
HRSG Exhaust Temperature (°F)	184	185	186	187
CT Emission rate (lb/hr) - calculated	49.4	47.4	46.2	44.5
HRSG Stack emission rate (lb/hr)- calculated	49.4	47.4	46.2	44.5
Volatile Organic Compounds				
Oxygen (%, dry)(O_2 dry) = Oxygen (%)/(1-Moisture (%))				
VOC (ppmv wet or actual) = VOC (ppmvd @ 15%O_2) x [(20.9 - O_2 dry)/(20.9 - 15)]				
VOC (lb/hr) = VOC (ppm actual) x Volume flow (acfm) x 16 (mole. wgt CH4) x 2116.8 lb/ft² (pressure) / [1545.7 (gas constant, R) x Actual Temp. (°R)] x 60 min/hr				
Basis, ppmvw	1.45	1.44	1.44	1.44
Basis, ppmvd @ 15% O2 - provided	1.2	1.2	1.2	1.2
Moisture (%)	7.57	8.17	8.84	9.76
Oxygen (%)	12.72	12.68	12.58	12.47
Oxygen (%) dry	13.76	13.81	13.80	13.82
Turbine Flow (acfm)	2,737,895	2,667,876	2,619,423	2,557,958
Turbine Exhaust Temperature (°F)	1,082	1,098	1,110	1,126
HRSG Exhaust Temperature (°F)	184	184	184	184
CT Emission rate (lb/hr) - calculated	3.39	3.25	3.17	3.05
HRSG Stack emission rate (lb/hr)- calculated	3.39	3.25	3.17	3.05
Sulfuric Acid Mist				
Sulfuric Acid Mist (lb/hr)= SO_2 emission (lb/hr) x Conversion to H_2SO_4 (% by weight)/100				
CT SO_2 emission rate (lb/hr) - calculated	11.5	11.0	10.6	10.2
CT Conversion to H_2SO_4 (% by weight) - provided	10	10	10	10
DB SO_2 emission rate (lb/hr) - provided	0	0	0	0
DB Conversion to H_2SO_4 (%) - provided	20	20	20	20
SCR SO_2 emission rate (lb/hr) - calculated (remaining SO_2 after conversion)	10.4	9.9	9.5	9.1
SCR Conversion to H_2SO_4 (% by weight) - provided	3	3	3	3
HRSG Stack emission rate (lb/hr)- calculated	2.24	2.14	2.06	1.97
Lead				
Lead (lb/hr) = NA				
Emission Rate Basis	NA	NA	NA	NA
HRSG Stack emission rate (lb/hr)	NA	NA	NA	NA

Note: ppmvd= parts per million, volume dry; O_2= oxygen.

Source: MPS, 2005; CT Performance Data: Golder, 2007.

TABLE A-5
DESIGN INFORMATION AND STACK PARAMETERS
FOR THE WEST COUNTY ENERGY CENTER UNIT 3 PROJECT
MPS 501G CT, DRY LOW NO_x COMBUSTOR, DISTILLATE OIL, BASE LOAD

Parameter	Turbine Inlet Temperature			
	35 °F Case 28	59 °F Case 26	75 °F Case 24	95 °F Case 22
Combustion Turbine Performance				
Net power output (MW)	239.1	221.8	209.8	194.5
Net heat rate (Btu/kWh, LHV)	9,410	9,550	9,690	9,900
(Btu/kWh, HHV)	9,975	10,123	10,271	10,494
Heat Input (MMBtu/hr, LHV)	2,248	2,117	2,030	1,923
(MMBtu/hr, HHV)	2,383	2,244	2,152	2,038
Relative Humidity (%)	40	60	60	50
Fuel heating value (Btu/lb, LHV)	18,387	18,387	18,387	18,387
(Btu/lb, HHV)	19,490	19,490	19,490	19,490
(HHV/LHV)	1.060	1.060	1.060	1.060
CT Exhaust Flow				
Mass Flow (lb/hr)- provided	5,092,000	4,850,000	4,677,000	4,460,000
Temperature (°F) - provided	982	995	1,006	1,021
Moisture (% Vol.)	7.3	7.9	8.49	9.41
Oxygen (% Vol.)	12.80	12.70	12.59	12.50
Molecular Weight	28.67	28.60	28.55	28.43
Fuel Usage				
Fuel usage (lb/hr) = Heat Input (MMBtu/hr) x 1,000,000 Btu/MMBtu (Fuel Heat Content, Btu/lb (LHV))				
Heat input (MMBtu/hr, LHV)	2,248	2,117	2,030	1,923
Heat content (Btu/lb, LHV)	18,387	18,387	18,387	18,387
Fuel usage (lb/hr)- calculated	122,260	115,136	110,404	104,585
HRSG Stack				
HRSG - Stack Height (ft)	149	149	149	149
Diameter (ft)	22	22	22	22
HRSG Stack Flow Conditions				
Velocity (ft/sec) = Volume flow (acfm) / [((diameter)² /4) x 3.14159] / 60 sec/min				
Mass flow (lb/hr) - provided	5,092,000	4,850,000	4,677,000	4,460,000
HRSG Stack Temperature (°F)	359	357	355	354
Molecular weight	28.67	28.60	28.55	28.43
CT volume flow (acfm)	1,770,566	1,686,303	1,625,099	1,553,931
(ft^3/s)- calculated	29,509	28,105	27,085	25,899
Diameter (ft)	22	22	22	22
Velocity (ft/sec)- calculated	77.6	73.9	71.3	68.1

Note: Universal gas constant = 1,545.7 ft-lb(force)/°R; atmospheric pressure = 2,116.8 lb(force)/ft²; 14.7 lb/ft³.

Source: MPS, 2007; CT Performance Data; Golder, 2007.

TABLE A-6
MAXIMUM EMISSIONS FOR CRITERIA POLLUTANTS FOR THE WEST COUNTY ENERGY CENTER UNIT 3 PROJECT
MPS 501G CT, DRY LOW NO_x COMBUSTOR, DISTILLATE OIL, BASE LOAD

Parameter	Turbine Inlet Temperature			
	35 °F Case 28	59 °F Case 26	75 °F Case 24	95 °F Case 22
Particulate from CTand SCR				
Total PM_{10} = PM_{10} (front half) + PM_{10} ($(NH_4)_2SO_4$) in HRSG only (back-half)				
a. PM_{10} (front half) (lb/hr)				
Particulate from CT- provided	37.0	35.0	34.0	32.0
b. PM_{10} ($(NH_4)_2SO_4$) from HRSG only (back half) = Sulfur trioxide from conversion of SO_2 converts to ammonium sulfate (= PM_{10})				
Particulate from conversion of SO_2 = SO_2 emissions (lb/hr) x conversion of SO_2 to SO_3 in CT and in SCR x lb SO_3/lb SO_2 x conversion of SO_3 to $(NH_4)_2SO_4$ x lb $(NH_4)_2SO_4$ / lb SO_3				
SO_2 emission rate (lb/hr)- calculated	3.7	3.5	3.3	3.1
Conversion (%) from SO_2 to SO_3	10.0	10.0	10.0	10.0
Remaining SO_2 (lb/hr) in CT after conversion - calculated	3.3	3.1	3.0	2.8
Conversion (%) from SO_2 to SO_3 in SCR	3.0	3.0	3.0	3.0
MW SO_3/ SO_2 (80/64)	1.3	1.3	1.3	1.3
Conversion (%) from SO_3 to $(NH_4)_2(SO_4)$	100	100	100	100
MW $(NH_4)_2SO_4$/ SO_3 (132/80)	1.7	1.7	1.7	1.7
HRSG Particulate as $(NH_4)_2(SO_4)$ (lb/hr)- calculated	0.96	0.90	0.87	0.82
Total HRSG stack emission rate (lb/hr) [a + b]	38.0	35.9	34.9	32.8
(lb/mmBtu, HHV)	NA	NA	NA	NA
Sulfur Dioxide				
SO_2 (lb/hr)= Fuel oil (lb/hr) x sulfur content(% weight) x (lb SO_2 /lb S) /100				
Fuel oil Sulfur Content	0.0015%	0.0015%	0.0015%	0.0015%
Fuel oil use (lb/hr)	122,260	115,136	110,404	104,585
lb SO2 / lb S (64/32)	2	2	2	2
HRSG Stack emission rate (lb/hr)- calculated	3.7	3.5	3.3	3.1
Nitrogen Oxides				
NOx (lb/hr) = NOx (ppm actual) x Volume flow (acfm) x 46 (mole. wgt NOx) x 2116.8 lb/ft^2 (pressure) / [1545.7 (gas constant, R) x Actual Temp. (°R)] x 60 min/hr				
NOx (ppm actual) = NOx (ppmd @ 15%O_2) x [(20.9 - O_2 dry)/(20.9 - 15)]				
Oxygen (%, dry)(O_2 dry) = Oxygen (%)/(1-Moisture (%))				
Basis, ppmvw - calculated	50.5	50.6	50.8	50.6
CT/DB, ppmvd @15% O_2	42	42	42	42
Moisture (%)	7.3	7.9	8.49	9.41
Oxygen (%)	12.80	12.70	12.59	12.50
Oxygen (%) dry	13.81	13.79	13.76	13.80
Turbine Flow (acfm)	3,115,995	3,001,787	2,921,860	2,825,958
Turbine Exhaust Temperature (°F)	982	995	1,006	1,021
CT Emission rate (lb/hr) - calculated	412.3	394.7	383.0	364.6
HRSG Stack emission rate, ppmvd @ 15% O_2 - provided	8	8	8.0	8.0
HRSG Stack emission rate (lb/hr) - calculated	78.5	75.2	73.0	69.4
Carbon Monoxide				
Oxygen (%, dry)(O_2 dry) = Oxygen (%)/(1-Moisture (%))				
CO (ppmv wet or actual) = CO (ppmvd @ 15%O_2) x [(20.9 - O_2 dry)/(20.9 - 15)]				
CO (lb/hr) = CO (ppm actual) x Volume flow (acfm) x 28 (mole. wgt CO) x 2116.8 lb/ft^2 (pressure) / [1545.7 (gas constant, R) x Actual Temp. (°R)] x 60 min/hr				
Basis, ppmvw	9.62	9.64	9.68	9.63
Basis, ppmvd @ 15% O2 - provided	8	8	8	8
Moisture (%)	7.3	7.9	8.49	9.41
Oxygen (%)	12.80	12.70	12.59	12.50
Oxygen (%) dry	13.81	13.79	13.76	13.80
Basis, ppmvd @ 15% O_2	8.00	8.00	8.00	8.00
Turbine Flow (acfm)	3,115,995	3,001,787	2,921,860	2,825,958
Turbine Exhaust Temperature (°F)	982	995	1,006	1,021
HRSG Exhaust Temperature (°F)	359	357	355	354
CT Emission rate (lb/hr) - calculated	47.8	45.8	44.4	42.3
HRSG Stack emission rate, ppmvd @ 15% O_2	8.0	8.0	8.0	8.0
HRSG Stack emission rate (lb/hr) - calculated	47.8	45.8	44.4	42.3
Volatile Organic Compounds				
Oxygen (%, dry)(O_2 dry) = Oxygen (%)/(1-Moisture (%))				
VOC (ppmv wet or actual) = VOC (ppmvd @ 15%O_2) x [(20.9 - O_2 dry)/(20.9 - 15)]				
VOC (lb/hr) = VOC (ppm actual) x Volume flow (acfm) x 16 (mole. wgt CH4) x 2116.8 lb/ft^2 (pressure) / [1545.7 (gas constant, R) x Actual Temp. (°R)] x 60 min/hr				
Basis, ppmvw	7.21	7.23	7.26	7.22
Basis, ppmvd @ 15% O2 - provided	6.00	6.00	6.00	6.00
Moisture (%)	7.30	7.90	8.49	9.41
Oxygen (%)	12.80	12.70	12.59	12.50
Oxygen (%-dry)	13.81	13.79	13.76	13.80
Turbine Flow (acfm)	3,115,995	3,001,787	2,921,860	2,825,958
Turbine Exhaust Temperature (°F)	982	995	1,006	1,021
CT Emission rate (lb/hr) - calculated	20.5	19.6	19.0	18.1
HRSG Stack emission rate, ppmvd @ 15% O_2	6.0	6.0	6.0	6.0
HRSG Stack emission rate (lb/hr) - calculated	20.5	19.6	19.0	18.1
Sulfuric Acid Mist				
Sulfuric Acid Mist (lb/hr)= SO_2 emission (lb/hr) x Conversion to H_2SO_4 (% by weight)/100				
CT SO_2 emission rate (lb/hr) - calculated	3.7	3.5	3.3	3.1
CT Conversion to H_2SO_4 (% by weight) - provided	10	10	10	10
DB SO_2 emission rate (lb/hr) - provided	0	0	0	0
DB Conversion to H_2SO_4 (%) - provided	20	20	20	20
SCR SO_2 emission rate (lb/hr) - calculated (remaining SO_2 after conversion)	3.3	3.1	3.0	2.8
SCR Conversion to H_2SO_4 (% by weight) - provided	3	3	3	3
HRSG Stack emission rate (lb/hr)- calculated	0.71	0.67	0.64	0.61
Lead				
Lead (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Emission Rate Basis (lb/10^{12} Btu)	14	14	14	14
HRSG Stack emission rate (lb/hr)- calculated	0.0315	0.0296	0.0284	0.0269

Note: ppmvd= parts per million, volume dry; O_2= oxygen.

Source: MPS, 2007; CT Performance Data; Golder, 2007.

TABLE A-7
DESIGN INFORMATION AND STACK PARAMETERS
FOR THE WEST COUNTY ENERGY CENTER UNIT 3 PROJECT
MPS 501G CT, DRY LOW NO_x COMBUSTOR, DISTILLATE OIL, 75% LOAD

Parameter	Turbine Inlet Temperature			
	35 °F Case 32	59 °F Case 31	75 °F Case 30	95 °F Case 29
Combustion Turbine Performance				
Net power output (MW)	179.1	166.1	157.1	145.6
Net heat rate (Btu/kWh, LHV)	9,830	10,060	10,260	10,550
(Btu/kWh, HHV)	10,420	10,664	10,876	11,183
Heat Input (MMBtu/hr, LHV)	1,759	1,670	1,610	1,536
(MMBtu/hr, HHV)	1,865	1,770	1,707	1,628
Relative Humidity (%)	40	60	60	50
Fuel heating value (Btu/lb, LHV)	18,387	18,387	18,387	18,387
(Btu/lb, HHV)	19,490	19,490	19,490	19,490
(HHV/LHV)	1.060	1.060	1.060	1.060
CT Exhaust Flow				
Mass Flow (lb/hr)- with no margin	4,946,000	4,757,000	4,619,000	4,426,000
- provided	NA	NA	NA	NA
Temperature (°F) - provided	832	847	859	878
Moisture (% Vol.)	5.9	6.5	7.2	8.2
Oxygen (% Vol.)	14.30	14.20	14.20	14.00
Molecular Weight	28.78	28.71	28.58	28.46
Fuel Usage				
Fuel usage (lb/hr) = Heat Input (MMBtu/hr) x 1,000,000 Btu/MMBtu (Fuel Heat Content, Btu/lb (LHV))				
Heat input (MMBtu/hr, LHV)	1,759	1,670	1,610	1,536
Heat content (Btu/lb, LHV)	18,387	18,387	18,387	18,387
Fuel usage (lb/hr)- calculated	95,665	90,825	87,562	83,537
HRSG Stack				
HRSG - Stack Height (ft)	149	149	149	149
Diameter (ft)	22	22	22	22
HRSG Stack Flow Conditions				
Velocity (ft/sec) = Volume flow (acfm) / [((diameter)^2 /4) x 3.14159] / 60 sec/min				
Mass flow (lb/hr)	4,946,000	4,757,000	4,619,000	4,426,000
HRSG Stack Temperature (°F)	350	348	346	345
Molecular weight	28.78	28.71	28.58	28.46
CT volume flow (acfm)	1,694,317	1,629,401	1,585,376	1,523,639
Diameter (ft)	22	22	22	22
Velocity (ft/sec)- calculated	74.3	71.4	69.5	66.8
Velocity (ft/sec)- provided	55	53	52	50

Note: Universal gas constant = 1,545.7 ft-lb(force)/°R; atmospheric pressure = 2,116.8 lb(force)/ft^2; 14.7 lb/ft^3.

Source: MPS, 2007; CT Performance Data; Golder, 2007.

TABLE A-8
MAXIMUM EMISSIONS FOR CRITERIA POLLUTANTS FOR THE WEST COUNTY ENERGY CENTER UNIT 3 PROJECT
MPS 501G CT, DRY LOW NO_x COMBUSTOR, DISTILLATE OIL, 75% LOAD

Parameter	Turbine Inlet Temperature 35 °F Case 32	59 °F Case 31	75 °F Case 30	95 °F Case 29
Particulate from CTand SCR				
Total PM_{10} = PM_{10} (front half) + PM_{10} ($(NH_4)_2SO_4$) in HRSG only (back-half)				
a. PM_{10} (front half) (lb/hr)				
Particulate from CT- provided	36.0	35.0	34.0	32.0
b. PM_{10} ($(NH_4)_2SO_4$) from HRSG only (back half) = Sulfur trioxide from conversion of SO_2 converts to ammonium sulfate (= PM_{10})				
Particulate from conversion of SO_2 = SO_2 emissions (lb/hr) x conversion of SO_2 to SO_3 in CT and in SCR x lb SO_3/lb SO_2 x conversion of SO_3 to $(NH_4)_2SO_4$ x lb $(NH_4)_2SO_4$ / lb SO_3				
SO_2 emission rate (lb/hr)- calculated	2.9	2.7	2.6	2.5
Conversion (%) from SO_2 to SO_3 in CT	10.0	10.0	10.0	10.0
Remaining SO_2 (lb/hr) in CT after conversion - calculated	2.6	2.5	2.4	2.3
Conversion (%) from SO_2 to SO_3 in SCR	3.0	3.0	3.0	3.0
MW SO_3/ SO_2 (80/64)	1.3	1.3	1.3	1.3
Conversion (%) from SO_3 to $(NH_4)_2(SO_4)$	100	100	100	100
MW $(NH_4)_2$ SO_4/ SO_3 (132/80)	1.7	1.7	1.7	1.7
HRSG Particulate as $(NH_4)_2(SO_4)$ (lb/hr)- calculated	0.75	0.71	0.69	0.66
Total HRSG stack emission rate (lb/hr) [a + b]	36.8	35.7	34.7	32.7
(lb/mmBtu, HHV)	NA	NA	NA	NA
Sulfur Dioxide				
SO_2 (lb/hr)= Fuel oil (lb/hr) x sulfur content(% weight) x (lb SO_2 /lb S) /100				
Fuel oil Sulfur Content	0.0015%	0.0015%	0.0015%	0.0015%
Fuel oil use (lb/hr)	95,665	90,825	87,562	83,537
lb SO2 / lb S (64/32)	2	2	2	2
HRSG Stack emission rate (lb/hr)- calculated	2.9	2.7	2.6	2.5
Nitrogen Oxides				
NOx (lb/hr) = NOx (ppm actual) x Volume flow (acfm) x 46 (mole. wgt NOx) x 2116.8 lb/ft^2 (pressure) / [1545.7 (gas constant, R) x Actual Temp. (°R)] x 60 min/hr				
NOx (ppm actual) = NOx (ppmd @ 15%O_2) x [(20.9 - O_2 dry)/(20.9 - 15)]				
Oxygen (%, dry)(O_2 dry) = Oxygen (%)/(1-Moisture (%))				
Basis, ppmvw - calculated	40.6	40.7	39.9	40.2
CT/DB, ppmvd @15% O_2	42	42	42	42
Moisture (%)	5.9	6.5	7.2	8.2
Oxygen (%)	14.30	14.20	14.20	14.00
Oxygen (%) dry	15.20	15.19	15.30	15.25
Turbine Flow (acfm)	2,701,316	2,634,484	2,593,256	2,531,312
Turbine Exhaust Temperature (°F)	832	847	859	878
CT emission rate (lb/hr)	320.9	309.8	296.2	287.6
HRSG Stack, ppmvd @ 15% O_2 - provided	8	8	8.0	8.0
HRSG Stack emission rate (lb/hr)- calculated	57.9	56.0	53.9	51.4
Carbon Monoxide				
Oxygen (%, dry)(O_2 dry) = Oxygen (%)/(1-Moisture (%))				
CO (ppmv wet or actual) = CO (ppmvd @ 15%O_2) x [(20.9 - O_2 dry)/(20.9 - 15)]				
CO (lb/hr) = CO (ppm actual) x Volume flow (acfm) x 28 (mole. wgt CO) x 2116.8 lb/ft^2 (pressure) / [1545.7 (gas constant, R) x Actual Temp. (°R)] x 60 min/hr				
Basis, ppmvw	48.33	48.41	47.44	47.88
Basis, ppmvd @ 15% O2 - provided	50	50	50	50
Moisture (%)	5.9	6.5	7.2	8.2
Oxygen (%)	14.30	14.20	14.20	14.00
Oxygen (%) dry	15.20	15.19	15.30	15.25
Turbine Flow (acfm)	2,701,316	2,634,484	2,593,256	2,531,312
Turbine Exhaust Temperature (°F)	832	847	859	878
HRSG Exhaust Temperature (°F)	350	348	346	345
CT emission rate (lb/hr)	232.5	224.5	214.6	208.4
HRSG Stack, ppmvd @ 15% O_2 - provided	8	8	8.0	8.0
HRSG Stack emission rate (lb/hr)- calculated	37.2	35.9	34.3	33.3
Volatile Organic Compounds				
Oxygen (%, dry)(O_2 dry) = Oxygen (%)/(1-Moisture (%))				
VOC (ppmv wet or actual) = VOC (ppmvd @ 15%O_2) x [(20.9 - O_2 dry)/(20.9 - 15)]				
VOC (lb/hr) = VOC (ppm actual) x Volume flow (acfm) x 16 (mole. wgt CH4) x 2116.8 lb/ft^2 (pressure) / [1545.7 (gas constant, R) x Actual Temp. (°R)] x 60 min/hr				
Basis, ppmvw	9.67	9.68	9.49	9.58
Basis, ppmvd @ 15% O2 - provided	10.00	10.00	10.00	10.00
Moisture (%)	5.90	6.50	7.20	8.20
Oxygen (%)	14.30	14.20	14.20	14.00
Oxygen (%) dry	15.20	15.19	15.30	15.25
Turbine Flow (acfm)	2701316.48	2634483.82	2593255.97	2531312.26
Turbine Exhaust Temperature (°F)	832	847	859	878
HRSG Exhaust Temperature (°F)	350	348	346	345
CT emission rate (lb/hr)	26.6	25.7	24.5	23.8
HRSG Stack, ppmvd @ 15% O_2 - provided	6.00	6.00	6.00	6.00
HRSG Stack emission rate (lb/hr)- calculated	15.94	15.40	14.72	14.29
Sulfuric Acid Mist				
Sulfuric Acid Mist (lb/hr)= SO_2 emission (lb/hr) x Conversion to H_2SO_4 (% by weight)/100				
CT SO_2 emission rate (lb/hr) - provided	2.9	2.7	2.6	2.5
CT Conversion to H_2SO_4 (% by weight) - provided	10	10	10	10
DB SO_2 emission rate (lb/hr) - provided	0	0	0	0
DB Conversion to H_2SO_4 (%) - provided	20	20	20	20
SCR SO_2 emission rate (lb/hr) - calculated (remaining SO_2 after conversion)	2.6	2.5	2.4	2.3
SCR Conversion to H_2SO_4 (% by weight) - provided	3	3	3	3
HRSG Stack emission rate (lb/hr)- calculated	0.56	0.53	0.51	0.49
Lead				
Lead (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Emission Rate Basis (lb/10^{12} Btu)	14	14	14	14
HRSG Stack emission rate (lb/hr)- calculated	0.0246	0.0234	0.0225	0.0215

Note: ppmvd= parts per million, volume dry; O2= oxygen.

Source: MPS, 2007; CT Performance Data; Golder, 2007.

TABLE A-9
REGULATED AND HAZARDOUS AIR POLLUTANT EMISSION FACTORS AND EMISSIONS FOR THE WEST COUNTY ENERGY CENTER UNIT 3 PROJECT WHEN FIRING NATURAL GAS, FRAME G CT

Parameter		Emission Rate (lb/hr) firing Natural Gas for Operating Conditions of Base Load (1)		Natural Gas Maximum Annual Emissions (TPY) (2)	
Ambient Temperature (°F):		59 °F	59 °F w/DB	59 °F	59 °F
HIR (MMBtu/hr):		2,590	3,065	1 CT/HRSG	3 CTs/HRSGs
Sulfuric acid mist		2.10	3.68	11.5	34.4
HAPs (Section 112(b) of Clean Air Act)					
1,3-Butadiene		0.001114	0.001318	0.005	0.016
Acetaldehyde		0.1036	0.1226	0.481	1.443
Acrolein		0.0166	0.0196	0.077	0.231
Benzene		0.0311	0.0368	0.144	0.433
Ethylbenzene		0.0829	0.0981	0.385	1.155
Formadehyde		0.608	0.727	2.834	8.501
Naphthalene		0.00337	0.00398	0.016	0.047
Polycyclic Aromatic Hydrocarbons (PAH)	(3)	0.00570	0.00674	0.026	0.079
Propylene Oxide		0.0751	0.0889	0.349	1.046
Toluene		0.0855	0.1011	0.397	1.191
Xylene		0.166	0.196	0.770	2.309
Antimony		0.0	0.0	0.0	0.00
Arsenic		0.0	0.0	0.0	0.00
Beryllium		0.0	0.0	0.0	0.00
Cadmium		0.0	0.0	0.0	0.00
Chromium		0.0	0.0	0.0	0.00
Lead		0.0	0.0	0.0	0.00
Manganese		0.0	0.0	0.0	0.00
Mercury		0.0	0.0	0.0	3.61E-05
Nickel		0.0	0.0	0.0	0.00
Selenium		0.0	0.0	0.0	0.00
HAPs (Total)		1.178	1.402	5.48	16.5

(1) Emissions based on the following emission factors and conversion factors for firing natural gas:

Emission Factors		Value	Reference
Sulfuric acid mist		10	%; Conversion of SO_2 to SO_3 in gas turbine
1,3-Butadiene	(a)	0.43	lb/10^{12} Btu; AP-42,Table 3.1-3. EPA 2000
Acetaldehyde		40	lb/10^{12} Btu; AP-42,Table 3.1-3. EPA 2000
Acrolein		6.4	lb/10^{12} Btu; AP-42,Table 3.1-3. EPA 2000
Benzene		12	lb/10^{12} Btu; AP-42,Table 3.1-3. EPA 2000
Ethylbenzene		32	lb/10^{12} Btu; AP-42,Table 3.1-3. EPA 2000
Formadehyde		0.091	ppmvd @15% O2 (see Table 9a)
Naphthalene		1.3	lb/10^{12} Btu; AP-42,Table 3.1-3. EPA 2000
Polycyclic Aromatic Hydrocarbons (PAH)		2.2	lb/10^{12} Btu; AP-42,Table 3.1-3. EPA 2000
Propylene Oxide	(a)	29	lb/10^{12} Btu; AP-42,Table 3.1-3. EPA 2000
Toluene		33	lb/10^{12} Btu; AP-42,Table 3.1-3. EPA 2000. Database
Xylene		64	lb/10^{12} Btu; AP-42,Table 3.1-3. EPA 2000
Antimony		0.00E+00	
Arsenic		0.00E+00	
Beryllium		0.00E+00	
Cadmium		0.00E+00	
Chromium		0.00E+00	
Lead		0.00E+00	
Manganese		0.00E+00	
Mercury		1.00E-03	
Nickel		0.00E+00	
Selenium		0.00E+00	

(a) Based on 1/2 the detection limit; expected emissions are lower.

(2) Annual emissions based on ambient temperature of 59 °F firing natural gas for following hours:

5880 CT
2880 CT/DB

(3) Assumed to be representative of Polycyclic Organic Matter (POM) emissions, a regulated HAP.

TABLE A-9a
MAXIMUM FORMALDEHYDE EMISSIONS
FOR THE WEST COUNTY ENERGY CENTER UNIT 3 PROJECT
FRAME G CT, DRY LOW NO_x COMBUSTOR, NATURAL GAS, BASE LOAD

Parameter	CT Only Turbine Inlet Temperature 35 °F Case 8	59 °F Case 6	59 °F w/DB Case 5	95 °F Case 2
Formaldehyde (CH_2O) MW = 30				
CH_2O (lb/hr) = CH_2O (ppm actual) x Volume flow (acfm) x 46 (mole. wgt NOx) x 2116.8 lb/ft^2 (pressure) / [1545.7 (gas constant, R) x Actual Temp. (°R)] x 60 min/hr				
CH_2O (ppm actual) = CH_2O (ppmd @ 15%O_2) x [(20.9 - O_2 dry)/(20.9 - 15)]				
Oxygen (%, dry)(O_2 dry) = Oxygen (%)/(1-Moisure (%))				
Basis, ppmvw - calculated	0.119	0.119	0.141	0.119
CT, ppmvd @15% O_2	0.091	0.091	0.091	0.091
Moisture (%)	8.1	8.73	10.06	10.32
Oxygen (%)	12.10	12.05	10.57	11.82
Oxygen (%) dry	13.17	13.20	11.75	13.18
Exhaust Flow (acfm)	1,426,187	1,359,834	1,347,583	1,259,433
Exhaust Temperature (°F)	196	195	185	195
CT Emission rate (lb/hr)	0.639	0.608	0.727	0.564
CT Emission rate (lb/10^{12} Btu) (HHV)	233.1	234.7	280.8	238.9

Note: ppmvd= parts per million, volume dry; O2= oxygen.

Source: MPS, 2007; CT Performance Data; Golder, 2007.

TABLE A-10
REGULATED AND HAZARDOUS AIR POLLUTANT EMISSION FACTORS AND EMISSIONS FOR THE WEST COUNTY ENERGY CENTER UNIT 3 PROJECT WHEN FIRING DISTILLATE FUEL OIL, FRAME G CT

Parameter		Emission Rate (lb/hr) Firing Distillate Fuel Oil (1)	Maximum Annual Emissions (TPY)			
		Base Load	Distillate Fuel Oil (2)		Natural Gas (4)	Natural Gas and Fuel Oil (5)
Ambient Temperature (°F):		59 °F				
			1	3	3	3
HIR (MMBtu/hr):		2,244	CT/HRSG	CTs/HRSGs	CTs/HRSGs	CTs/HRSGs
Sulfuric acid mist		0.67	0.17	0.5	34.4	32.9
HAPs (Section 112(b) of Clean Air Act)						
1,3-Butadiene		0.0359	0.0090	0.0269	0.0155	0.042
Acetaldehyde		0.00	0.00	0.00	1.44	1.4
Acrolein		0.00	0.00	0.00	0.231	0.22
Benzene		0.123	0.0309	0.0926	0.433	0.50
Ethylbenzene		0.00	0.00	0.00	1.155	1.09
Formadehyde		0.558	0.140	0.419	8.50	8.4
Naphthalene		0.0785	0.0196	0.0589	0.0469	0.103
Polycyclic Aromatic Hydrocarbons (PAH)	(3)	0.0898	0.0224	0.0673	0.0794	0.14
Propylene Oxide		0.00	0.00	0.00	1.046	0.99
Toluene		0.00	0.00	0.00	1.19	1.1
Xylene		0.00	0.00	0.00	2.31	2.2
Antimony		0.00	0.00	0.00	0.00	0.0
Arsenic		0.0247	0.00617	0.0185	0.00	0.019
Beryllium		0.000696	0.000174	0.000522	0.00	0.00052
Cadmium		0.01077	0.00269	0.00808	0.00	0.0081
Chromium		0.0247	0.00617	0.0185	0.00	0.019
Lead		0.0314	0.00785	0.0236	0.00	0.024
Manganese		1.77	0.443	1.33	0.00	1.3
Mercury		0.00269	0.000673	0.00202	0.00	0.0021
Nickel		0.01032	0.00258	0.00774	0.00	0.0077
Selenium		0.0561	0.0140	0.0421	0.00	0.042
HAPs (Total)		2.82	0.705	2.11	16.5	17.6

(1) Emissions based on the following emission factors and conversion factors for firing distillate fuel oil:

Emission Factors		Value	Reference
Sulfuric acid mist		5	%; Conversion of SO_2 to SO_3 in gas turbine
1,3-Butadiene	(a)	16	lb/10^{12} Btu; AP-42,Table 3.1-4. EPA 2000
Acetaldehyde		0.0	
Acrolein		0.0	
Benzene		55	lb/10^{12} Btu; AP-42,Table 3.1-4. EPA 2000
Ethylbenzene		0.0	
Formadehyde		0.091	ppmvd @15% O2 (see Table 10a)
Naphthalene		35	lb/10^{12} Btu; AP-42,Table 3.1-4. EPA 2000
Polycyclic Aromatic Hydrocarbons (PAH)		40	lb/10^{12} Btu; AP-42,Table 3.1-4. EPA 2000
Propylene Oxide		0.0	
Toluene		0.0	
Xylene		0.0	
Antimony		0.0	
Arsenic	(a)	11	lb/10^{12} Btu; AP-42,Table 3.1-5. EPA 2000
Beryllium	(a)	0.31	lb/10^{12} Btu; AP-42,Table 3.1-5. EPA 2000
Cadmium		4.8	lb/10^{12} Btu; AP-42,Table 3.1-5. EPA 2000
Chromium		11	lb/10^{12} Btu; AP-42,Table 3.1-5. EPA 2000
Lead		14	lb/10^{12} Btu; AP-42,Table 3.1-5. EPA 2000
Manganese		790	lb/10^{12} Btu; AP-42,Table 3.1-5. EPA 2000
Mercury		1.2	lb/10^{12} Btu; AP-42,Table 3.1-5. EPA 2000
Nickel	(a)	4.6	lb/10^{12} Btu; AP-42,Table 3.1-5. EPA 2000
Selenium	(a)	25	lb/10^{12} Btu; AP-42,Table 3.1-5. EPA 2000

(a) Based on 1/2 the detection limit; expected emissions are lower.

(2) Annual emissions based on ambient temperature of 59 °F and firing fuel oil at base load for : 500 hours
(3) Assumed to be representative of Polycyclic Organic Matter (POM) emissions, a regulated HAP.
(4) Annual emissions based on maximum emissions presented for natural gas-firing
(5) Maximum total annual emissions based on 500 hours of firing fuel and remaining hours firing natural gas.

TABLE A-10a
MAXIMUM FORMALDEHYDE EMISSIONS
FOR THE WEST COUNTY ENERGY CENTER UNIT 3 PROJECT
FRAME G CT, DRY LOW NO_x COMBUSTOR, DISTILLATE OIL, BASE LOAD

Parameter	CT Only Turbine Inlet Temperature 35 °F Case 28	59 °F Case 26	75 °F Case 24	95 °F Case 22
Formaldehyde (CH_2O) MW = 30				
CH_2O (lb/hr) = CH_2O (ppm actual) x Volume flow (acfm) x 46 (mole. wgt NOx) x 2116.8 lb/ft^2 (pressure) / [1545.7 (gas constant, R) x Actual Temp. (°R)] x 60 min/hr				
CH_2O (ppm actual) = CH_2O (ppmd @ 15%O_2) x [(20.9 - O_2 dry)/(20.9 - 15)]				
Oxygen (%, dry)(O_2 dry) = Oxygen (%)/(1-Moisture (%))				
Basis, ppmvw - calculated	0.109	0.110	0.110	0.110
CT, ppmvd @15% O_2	0.091	0.091	0.091	0.091
Moisture (%)	7.30	7.90	8.49	9.41
Oxygen (%)	12.80	12.70	12.59	12.50
Oxygen (%) dry	13.81	13.79	13.76	13.80
Exhaust Flow (acfm)	1,770,566	1,686,303	1,625,099	1,553,931
Exhaust Temperature (°F)	359	357	355	354
CT Emission rate (lb/hr)	0.583	0.558	0.541	0.515
CT Emission rate (lb/10^{12} Btu) (HHV)	244.6	248.7	251.6	252.9

Note: ppmvd= parts per million, volume dry; O2= oxygen.

Source: MPS, 2007; CT Performance Data; Golder, 2007.

TABLE A-11
PM SPECIATION SUMMARY - WCEC UNIT 3, NATURAL GAS FIRING SCENARIO

PM	Source	Rate (lb/hr)	Coarse PM	Soil (Fine PM)	Elemental Carbon (EC)	H_2SO_4	Organic
Filterable PM_{10} [a]	CT/HRSG	6.4	0.00	5.97	0.43		
Condensable PM_{10} [b]	CT/HRSG	5.2				3.84	1.36
Total PM_{10} (filterable+condensable)	CT/HRSG	11.6	0.00	5.97	0.43	3.84	1.36
PM Speciation (% Filterable) [c]		100.0%	0.0%	93.3%	6.7%		
PM Speciation (% Condensable)		100.0%				73.8%	26.2%
Total PM_{10} (filterable+Organic Condensable PM)	CT/HRSG	7.8					
Modeled PM Speciation % (SO_4 modeled separately)	CT/HRSG	100.0%	0.0%	76.9%	5.5%	0.0%	17.5%

PM Particle Size Distribution for CALPUFF Assessment

Species Name	Individual Size Categories [d]: Fraction of Filterable PM_{10} (%)	Individual Size Categories [d]: Fraction of Organic Condensable	Emission Rate (lb/hr): One CT/HRSG: Filterable	Emission Rate (lb/hr): One CT/HRSG: Organic Condensable	Emission Rate (lb/hr): One CT/HRSG: Total
Total PM_{10}			6.4	1.4	7.8
PM0063	25.0%	50.0%	1.6	0.7	2.3
PM0100	25.0%	50.0%	1.6	0.7	2.3
PM0125	25.0%	0	1.6	0.0	1.6
PM0250	25.0%	0	1.6	0.0	1.6
PM0600	0.0%	0	0.0	0.0	0.0
PM1000	0.0%	0	0.0	0.0	0.0
Totals	100.0%	100.0%	6.4	1.4	7.8
				Total Modeled PM_{10}	7.8

[a] CT+DB rate, 35 °F, base load case.

[b] Total condensable PM_{10} (as $(NH_4)_2SO_4$) from HRSG only (back half) = Conversion of SO_2 to SO_3 in CT+SCR and assuming 100% of SO_3 converts to ammonium sulfate.
H_2SO_4 is calculated based on the convertion of SO_2 to SO_3 in CT+SCR and assuming 100% of SO_3 converts to sulfuric acid mist.

[c] EPA Speciation recommendation for Oil-Fired CT -

Filterable PM_{10} =	-NA-	lb/10^3 gal		
Filterable $PM_{2.5}$ =	-NA-	lb/10^3 gal	=	100.0% of Filterable PM_{10}
Coarse PM_{10} = Filterable PM_{10} - Filterable $PM_{2.5}$ =	-NA-	lb/10^3 gal	=	0.0% of Filterable PM_{10}

From Table 6 of EPA's January 2002 DRAFT "Catalog of Global Emissions Inventories and Emission Inventory Tools for Black Carbon", Electric Utilities - Natural Gas -

Elemental Carbon (EC) =	6.7% of $PM_{2.5}$	=	6.7% of Filterable PM_{10}
Soil = Filterable $PM_{2.5}$ - EC =	93.3% of $PM_{2.5}$	=	93.3% of Filterable PM_{10}

[d] Filterable PM_{10} equally distributed among the size categories less than 2.5 μm and condensable PM_{10} equally distributed among the size categories less than 1 μm.

TABLE A-12
PM SPECIATION SUMMARY - WCEC UNIT 3, FUEL OIL FIRING SCENARIO

PM	Source	Rate (lb/hr)	Coarse PM	Soil (Fine PM)	Elemental Carbon (EC)	H_2SO_4	Organic
Filterable PM_{10} [a]	CT/HRSG	37.0	0.00	34.26	2.74		
Condensable PM_{10} [b]	CT/HRSG	1.00				0.70	0.30
Total PM_{10} (filterable+condensable)	CT/HRSG	38.0	0.00	34.26	2.74	0.70	0.30
PM Speciation (% Filterable) [c]		100.0%	0.0%	92.6%	7.4%		
PM Speciation (% Condensable)		100.0%				70.0%	30.0%
Total PM_{10} (filterable+Organic Condensable PM)	CT/HRSG	37.3					
Modeled PM Speciation % (SO_4 modeled separately)	CT/HRSG	100.0%	0.0%	91.9%	7.3%	0.0%	0.8%

PM Particle Size Distribution for CALPUFF Assessment

Species Name	Individual Size Categories [d]: Fraction of Filterable PM_{10} (%)	Individual Size Categories [d]: Fraction of Organic Condensable	Emission Rate (lb/hr): One CT/HRSG: Filterable	Emission Rate (lb/hr): One CT/HRSG: Organic Condensable	Emission Rate (lb/hr): One CT/HRSG: Total
Total PM_{10}			37.0	0.3	37.3
PM0063	25.0%	50.0%	9.3	0.2	9.4
PM0100	25.0%	50.0%	9.3	0.2	9.4
PM0125	25.0%	0	9.3	0.0	9.3
PM0250	25.0%	0	9.3	0.0	9.3
PM0600	0.0%	0	0.0	0.0	0.0
PM1000	0.0%	0	0.0	0.0	0.0
Totals	100.0%	100.0%	37.0	0.3	37.3
				Total Modeled PM_{10}	37.3

[a] CT only rate, 35 °F, base load case. See Table 2-2 and Table A-6 of the PSD Report.

[b] Total condensable PM_{10} (as $(NH_4)_2SO_4$) from HRSG only (back half) = Conversion of SO_2 to SO_3 in CT+SCR and assuming 100% of SO_3 converts to ammonium sulfate.
H_2SO_4 is calculated based on the convertion of SO_2 to SO_3 in CT+SCR and assuming 100% of SO_3 converts to sulfuric acid mist. See Table A-6 of PSD Report.

[c] EPA Speciation recommendation for Oil-Fired CT -

Filterable PM_{10} =	-NA-	lb/10^3 gal		
Filterable $PM_{2.5}$ =	-NA-	lb/10^3 gal	=	100.0% of Filterable PM_{10}
Coarse PM_{10} = Filterable PM_{10} - Filterable $PM_{2.5}$ =	-NA-	lb/10^3 gal	=	0.0% of Filterable PM_{10}

From Table 6 of EPA's January 2002 DRAFT "Catalog of Global Emissions Inventories and Emission Inventory Tools for Black Carbon" -

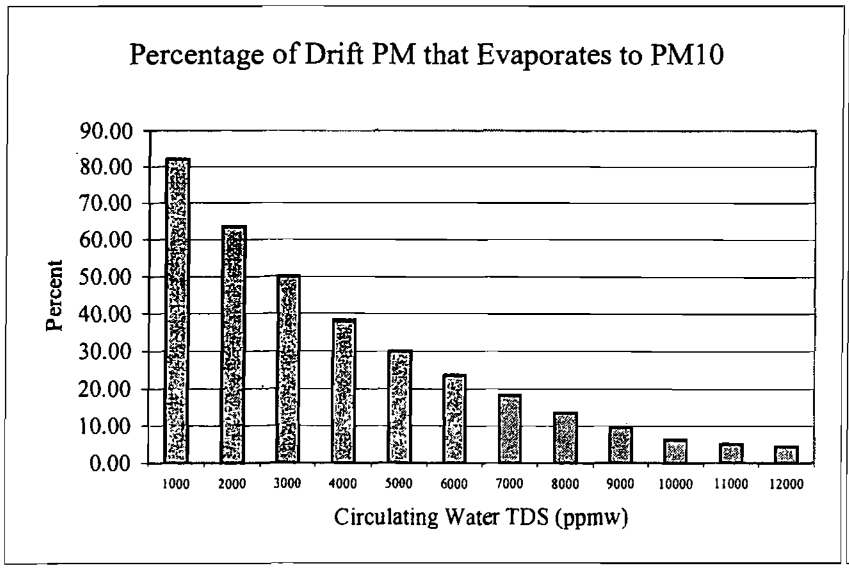
Elemental Carbon (EC) =	7.4% of $PM_{2.5}$	=	7.4% of Filterable PM_{10}
Soil = Filterable $PM_{2.5}$ - EC =	92.6% of $PM_{2.5}$	=	92.6% of Filterable PM_{10}

[d] *Filterable PM_{10} equally distributed among the size categories less than 2.5 μm and condensable PM_{10} equally distributed among the size categories less than 1 μm.*

PM AND PM_{10} EMISSION RATE CALCULATIONS FOR COOLING TOWER

TABLE A-13
VARIATION OF COOLING TOWER PM AND PM_{10} EMISSION RATES WITH TOTAL DISSOLVED SOLIDS (TDS) CONTENT

TDS (ppmw)	PM Emission Rate (lb/hr)	Percent of Emissions < or = PM10 %	PM10 Emissions (lb/hr)	Tower Circulation Rate (GPM)	Drift Rate %	Calculated PM10 % < or = PM10 %
1000	0.760	82.04	0.624	303,810	0.0005	82.04
2000	1.520	63.50	0.965			63.50
3000	2.280	50.00	1.140			50.00
4000	3.041	38.33	1.165			38.33
5000	3.801	29.97	1.139			29.97
6000	4.561	23.59	1.076			23.59
7000	5.321	18.20	0.968			18.20
8000	6.081	13.57	0.825			13.57
9000	6.841	9.65	0.660			9.65
10000	7.601	6.28	0.477			6.28
11000	8.361	5.11	0.427			5.11
12000	9.122	4.46	0.407			4.46
30000	22.804	0.76	0.173			0.76
35000	26.605	0.51	0.136			0.51



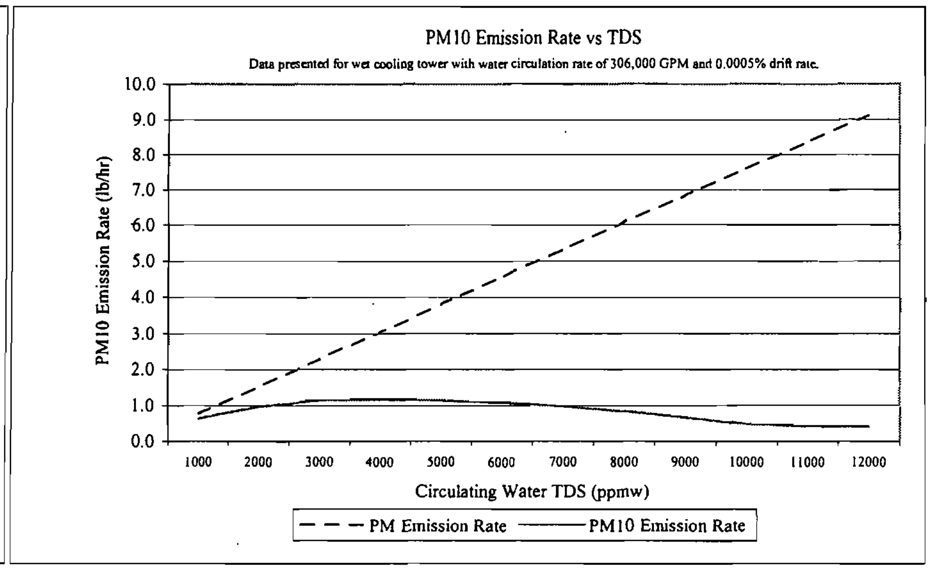
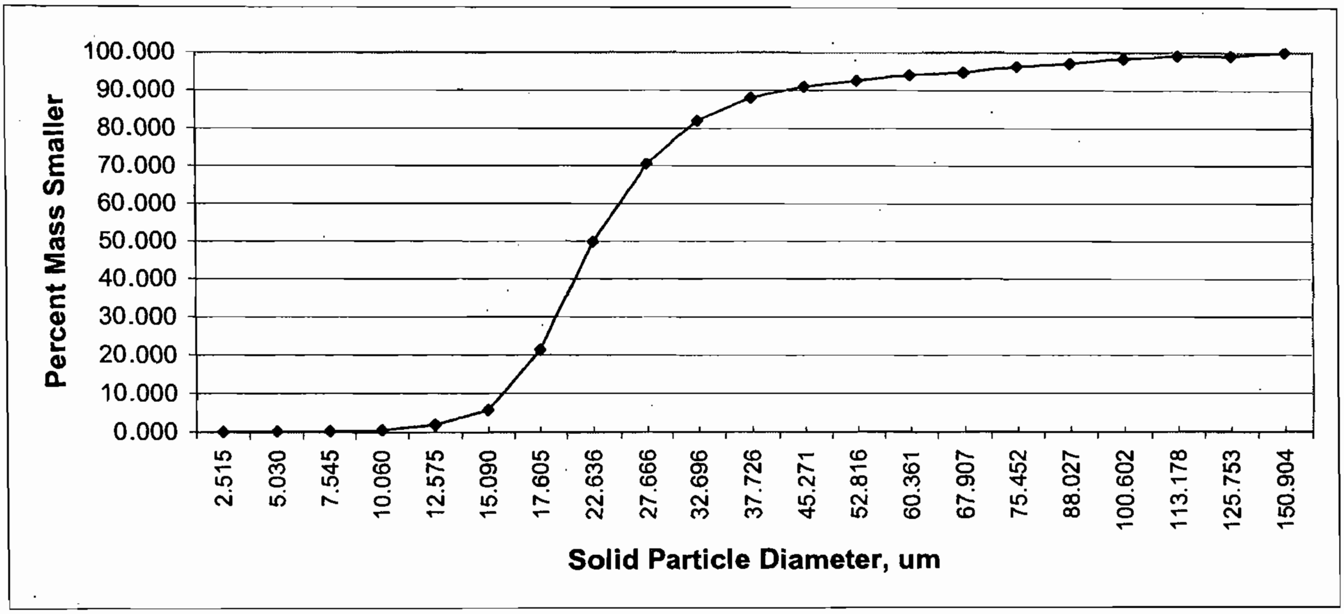


TABLE A-14
RESULTANT SOLID PARTICULATE SIZE DISTRIBUTION (TDS = 35,000 PPMW)

EPRI Droplet Diameter (um)	Droplet Volume (um3)	Droplet Mass (ug)	Particulate Mass (Solids) (ug)	Solid Particulate Volume (um3)	Solid Particulate Diameter (um)	EPRI % Mass Smaller
10	523.6	5.24E-04	1.83E-05	8.33	2.515	0.000
20	4188.8	4.19E-03	1.47E-04	66.64	5.030	0.196
30	14137.2	1.41E-02	4.95E-04	224.91	7.545	0.226
40	33510.3	3.35E-02	1.17E-03	533.12	10.060	0.514
50	65449.8	6.54E-02	2.29E-03	1041.25	12.575	1.816
60	113097.3	1.13E-01	3.96E-03	1799.28	15.090	5.702
70	179594.4	1.80E-01	6.29E-03	2857.18	17.605	21.348
90	381703.5	3.82E-01	1.34E-02	6072.56	22.636	49.812
110	696910.0	6.97E-01	2.44E-02	11087.20	27.666	70.509
130	1150346.5	1.15E+00	4.03E-02	18300.97	32.696	82.023
150	1767145.9	1.77E+00	6.19E-02	28113.68	37.726	88.012
180	3053628.1	3.05E+00	1.07E-01	48580.45	45.271	91.032
210	4849048.3	4.85E+00	1.70E-01	77143.95	52.816	92.468
240	7238229.5	7.24E+00	2.53E-01	115153.65	60.361	94.091
270	10305994.7	1.03E+01	3.61E-01	163959.01	67.907	94.689
300	14137166.9	1.41E+01	4.95E-01	224909.47	75.452	96.288
350	22449297.5	2.24E+01	7.86E-01	357147.91	88.027	97.011
400	33510321.6	3.35E+01	1.17E+00	533118.75	100.602	98.340
450	47712938.4	4.77E+01	1.67E+00	759069.47	113.178	99.071
500	65449846.9	6.54E+01	2.29E+00	1041247.57	125.753	99.071
600	113097335.5	1.13E+02	3.96E+00	1799275.79	150.904	100.000



Calculating Realistic PM_{10} Emissions from Cooling Towers

Abstract No. 216 Session No. AM-1b

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ABSTRACT

Particulate matter less than 10 micrometers in diameter (PM_{10}) emissions from wet cooling towers may be calculated using the methodology presented in EPA's AP-42[1], which assumes that all total dissolved solids (TDS) emitted in "drift" particles (liquid water entrained in the air stream and carried out of the tower through the induced draft fan stack.) are PM_{10}. However, for wet cooling towers with medium to high TDS levels, this method is overly conservative, and predicts significantly higher PM_{10} emissions than would actually occur, even for towers equipped with very high efficiency drift eliminators (e.g., 0.0006% drift rate). Such over-prediction may result in unrealistically high PM_{10} modeled concentrations and/or the need to purchase expensive Emission Reduction Credits (ERCs) in PM_{10} non-attainment areas. Since these towers have fairly low emission points (10 to 15 m above ground), over-predicting PM_{10} emission rates can easily result in exceeding federal Prevention of Significant Deterioration (PSD) significance levels at a project's fenceline. This paper presents a method for computing realistic PM_{10} emissions from cooling towers with medium to high TDS levels.

INTRODUCTION

Cooling towers are heat exchangers that are used to dissipate large heat loads to the atmosphere. Wet, or evaporative, cooling towers rely on the latent heat of water evaporation to exchange heat between the process and the air passing through the cooling tower. The cooling water may be an integral part of the process or may provide cooling via heat exchangers, for example, steam condensers. Wet cooling towers provide direct contact between the cooling water and air passing through the tower, and as part of normal operation, a very small amount of the circulating water may be entrained in the air stream and be carried out of the tower as "drift" droplets. Because the drift droplets contain the same chemical impurities as the water circulating through the tower, the particulate matter constituent of the drift droplets may be classified as an emission. The magnitude of the drift loss is influenced by the number and size of droplets produced within the tower, which are determined by the tower fill design, tower design, the air and water patterns, and design of the drift eliminators.

AP-42 METHOD OF CALCULATING DRIFT PARTICULATE

EPA's AP-42[1] provides available particulate emission factors for wet cooling towers, however, these values only have an emission factor rating of "E" (the lowest level of confidence acceptable). They are also rather high, compared to typical present-day manufacturers' guaranteed drift rates, which are on the order of 0.0006%. (Drift emissions are typically expressed as a percentage of the cooling tower water circulation rate). AP-42 states that "a *conservatively high* PM_{10} emission factor can be obtained by (a) multiplying the total liquid drift factor by the TDS fraction in the circulating water, and (b) assuming that once the water evaporates, all remaining solid particles are within the PM_{10} range." (Italics per EPA).

If TDS data for the cooling tower are not available, a source-specific TDS content can be estimated by obtaining the TDS for the make-up water and multiplying it by the cooling tower cycles of concentration. [The cycles of concentration is the ratio of a measured parameter for the cooling tower water (such as conductivity, calcium, chlorides, or phosphate) to that parameter for the make-up water.]

Using AP-42 guidance, the total particulate emissions (PM) (after the pure water has evaporated) can be expressed as:

$$PM = \text{Water Circulation Rate} \times \text{Drift Rate} \times \text{TDS} \qquad [1]$$

For example, for a typical power plant wet cooling tower with a water circulation rate of 146,000 gallons per minute (gpm), drift rate of 0.0006%, and TDS of 7,700 parts per million by weight (ppmw):

$$PM = 146{,}000 \text{ gpm} \times 8.34 \text{ lb water/gal} \times 0.0006/100 \times 7{,}700 \text{ lb solids}/10^6 \text{ lb water} \times 60 \text{ min/hr} = \underline{3.38 \text{ lb/hr}}$$

On an annual basis, this is equivalent to almost 15 tons per year (tpy). Even for a state-of-the-art drift eliminator system, this is not a small number, especially if assumed to all be equal to PM_{10}, a regulated criteria pollutant. However, as the following analysis demonstrates, only a very small fraction is actually PM_{10}.

COMPUTING THE PM_{10} FRACTION

Based on a representative drift droplet size distribution and TDS in the water, the amount of solid mass in each drop size can be calculated. That is, for a given initial droplet size, assuming that the mass of dissolved solids condenses to a spherical particle after all the water evaporates, and assuming the density of the TDS is equivalent to a representative salt (e.g., sodium chloride), the diameter of the final solid particle can be calculated. Thus, using the drift droplet size distribution, the percentage of drift mass containing particles small enough to produce PM_{10} can be calculated. This method is conservative as the final particle is assumed to be perfectly spherical; hence as small a particle as can exist.

The droplet size distribution of the drift emitted from the tower is critical to performing the analysis. Brentwood Industries, a drift eliminator manufacturer, was contacted and agreed to provide drift eliminator test data from a test conducted by Environmental Systems Corporation (ESC) at the Electric Power Research Institute (EPRI) test facility in Houston, Texas in 1988 (Aull[2], 1999). The data consist of water droplet size distributions for a drift eliminator that achieved a tested drift rate of 0.0003 percent. As we are using a 0.0006 percent drift rate, it is reasonable to expect that the 0.0003 percent drift rate would produce smaller droplets, therefore, this size distribution data can be assumed to be conservative for predicting the fraction of PM_{10} in the total cooling tower PM emissions.

In calculating PM_{10} emissions the following assumptions were made:

- Each water droplet was assumed to evaporate shortly after being emitted into ambient air, into a single, solid, spherical particle.
- Drift water droplets have a density (ρ_w) of water; 1.0 g/cm^3 or $1.0*10^{-6}\ \mu g/\mu m^3$.
- The solid particles were assumed to have the same density (ρ_{TDS}) as sodium chloride, (i.e., 2.2 g/cm^3).

Using the formula for the volume of a sphere, $V = 4\pi r^3/3$, and the density of pure water, $\rho_w = 1.0$ g/cm^3, the following equations can be used to derive the solid particulate diameter, D_p, as a function of the TDS, the density of the solids, and the initial drift droplet diameter, D_d :

$$\text{Volume of drift droplet} = (4/3)\pi(D_d/2)^3 \quad [2]$$

$$\text{Mass of solids in drift droplet} = (TDS)(\rho_w)(\text{Volume of drift droplet}) \quad [3]$$

substituting,

$$\text{Mass of solids in drift} = (TDS)(\rho_w)(4/3)\pi(D_d/2)^3 \quad [4]$$

Assuming the solids remain and coalesce after the water evaporates, the mass of solids can also be expressed as:

$$\text{Mass of solids} = (\rho_{TDS})\ (\text{solid particle volume}) = (\rho_{TDS})(4/3)\pi(D_p/2)^3 \quad [5]$$

Equations [4] and [5] are equivalent:

$$(\rho_{TDS})(4/3)\pi(D_p/2)^3 = (TDS)(\rho_w)(4/3)\pi(D_d/2)^3 \quad [6]$$

Solving for D_p:

$$D_p = D_d\ [(TDS)(\rho_w/\rho_{TDS})]^{1/3} \quad [7]$$

Where,

TDS is in units of ppmw
D_p = diameter of solid particle, micrometers (μm)
D_d = diameter of drift droplet, μm

Using formulas [2] – [7] and the particle size distribution test data, Table 1 can be constructed for drift from a wet cooling tower having the same characteristics as our example; 7,700 ppmw TDS and a 0.0006% drift rate. The first and last columns of this table are the particle size distribution derived from test results provided by Brentwood Industries. Using straight-line interpolation for a solid particle size 10 μm in diameter, we conclude that approximately 14.9 percent of the mass emissions are equal to or smaller than PM_{10}. The balance of the solid particulate are particulate greater than 10 μm. Hence, PM_{10} emissions from this tower would be equal to PM emissions x 0.149, or 3.38 lb/hr x 0.149 = 0.50 lb/hr. The process is repeated in Table 2, with all parameters equal except that the TDS is 11,000 ppmw. The result is that approximately 5.11 percent are smaller at 11,000 ppm. Thus, while total PM emissions are larger by virtue of a higher TDS, overall PM_{10} emissions are actually lower, because more of the solid particles are larger than 10 μm.

Table 1. Resultant Solid Particulate Size Distribution (TDS = 7700 ppmw)

EPRI Droplet Diameter (μm)	Droplet Volume (μm^3) [2][1]	Droplet Mass (μg) [3]	Particle Mass (Solids) (μg) [4]	Solid Particle Volume (μm^3)	Solid Particle Diameter (μm) [7]	EPRI % Mass Smaller
10	524	5.24E-04	4.03E-06	1.83	1.518	0.000
20	4189	4.19E-03	3.23E-05	14.66	3.037	0.196
30	14137	1.41E-02	1.09E-04	49.48	4.555	0.226
40	33510	3.35E-02	2.58E-04	117.29	6.073	0,514
50	65450	6.54E-02	5.04E-04	229.07	7.591	1.816
60	113097	1.13E-01	8.71E-04	395.84	9.110	5.702
70	179594	1.80E-01	1.38E-03	628.58	10.628	21.348
90	381704	3.82E-01	2.94E-03	1335.96	13.665	49.812
110	696910	6.97E-01	5.37E-03	2439.18	16.701	70.509
130	1150347	1.15E+00	8.86E-03	4026.21	19.738	82.023
150	1767146	1.77E+00	1.36E-02	6185.01	22.774	88.012
180	3053628	3.05E+00	2.35E-02	10687.70	27.329	91.032
210	4849048	4.85E+00	3.73E-02	16971.67	31.884	92.468
240	7238229	7.24E+00	5.57E-02	25333.80	36.439	94.091
270	10305995	1.03E+01	7.94E-02	36070.98	40.994	94.689
300	14137167	1.41E+01	1.09E-01	49480.08	45.549	96.288
350	22449298	2.24E+01	1.73E-01	78572.54	53.140	97.011
400	33510322	3.35E+01	2.58E-01	117286.13	60.732	98.340
450	47712938	4.77E+01	3.67E-01	166995.28	68.323	99.071
500	65449847	6.54E+01	5.04E-01	229074.46	75.915	99.071
600	113097336	1.13E+02	8.71E-01	395840.67	91.098	100.000

[1] Bracketed numbers refer to equation number in text.

The percentage of PM_{10}/PM was calculated for cooling tower TDS values from 1000 to 12000 ppmw and the results are plotted in Figure 1. Using these data, Figure 2 presents predicted PM_{10} emission rates for the 146,000 gpm example tower. As shown in this figure, the PM emission rate increases in a straight line as TDS increases, however, the PM_{10} emission rate increases to a maximum at around a TDS of 4000 ppmw, and then begins to decline. The reason is that at higher TDS, the drift droplets contain more solids and therefore, upon evaporation, result in larger solid particles for any given initial droplet size.

CONCLUSION

The emission factors and methodology given in EPA's AP-42[1] Chapter 13.4 *Wet Cooling Towers*, do not account for the droplet size distribution of the drift exiting the tower. This is a critical factor, as more than 85% of the mass of particulate in the drift from most cooling towers will result in solid particles larger than PM_{10} once the water has evaporated. Particles larger than PM_{10} are no longer a regulated air pollutant, because their impact on human health has been shown to be insignificant. Using reasonable, conservative assumptions and a realistic drift droplet size distribution, a method is now available for calculating realistic PM_{10} emission rates from wet mechanical draft cooling towers equipped with modern, high-efficiency drift eliminators and operating at medium to high levels of TDS in the circulating water.

Table 2. Resultant Solid Particulate Size Distribution (TDS = 11000 ppmw)

EPRI Droplet Diameter (μm)	Droplet Volume (μm^3) [2][1]	Droplet Mass (μg) [3]	Particle Mass (Solids) (μg) [4]	Solid Particle Volume (μm^3)	Solid Particle Diameter (μm) [7]	EPRI % Mass Smaller
10	524	5.24E-04	5.76E-06	2.62	1.710	0.000
20	4189	4.19E-03	4.61E-05	20.94	3.420	0.196
30	14137	1.41E-02	1.56E-04	70.69	5.130	0.226
40	33510	3.35E-02	3.69E-04	167.55	6.840	0.514
50	65450	6.54E-02	7.20E-04	327.25	8.550	1.816
60	113097	1.13E-01	1.24E-03	565.49	10.260	5.702
70	179594	1.80E-01	1.98E-03	897.97	11.970	21.348
90	381704	3.82E-01	4.20E-03	1908.52	15.390	49.812
110	696910	6.97E-01	7.67E-03	3484.55	18.810	70.509
130	1150347	1.15E+00	1.27E-02	5751.73	22.230	82.023
150	1767146	1.77E+00	1.94E-02	8835.73	25.650	88.012
180	3053628	3.05E+00	3.36E-02	15268.14	30.780	91.032
210	4849048	4.85E+00	5.33E-02	24245.24	35.909	92.468
240	7238229	7.24E+00	7.96E-02	36191.15	41.039	94.091
270	10305995	1.03E+01	1.13E-01	51529.97	46.169	94.689
300	14137167	1.41E+01	1.56E-01	70685.83	51.299	96.288
350	22449298	2.24E+01	2.47E-01	112246.49	59.849	97.011
400	33510322	3.35E+01	3.69E-01	167551.61	68.399	98.340
450	47712938	4.77E+01	5.25E-01	238564.69	76.949	99.071
500	65449847	6.54E+01	7.20E-01	327249.23	85.499	99.071
600	113097336	1.13E+02	1.24E+00	565486.68	102.599	100.000

Figure 1: Percentage of Drift PM that Evaporates to PM10

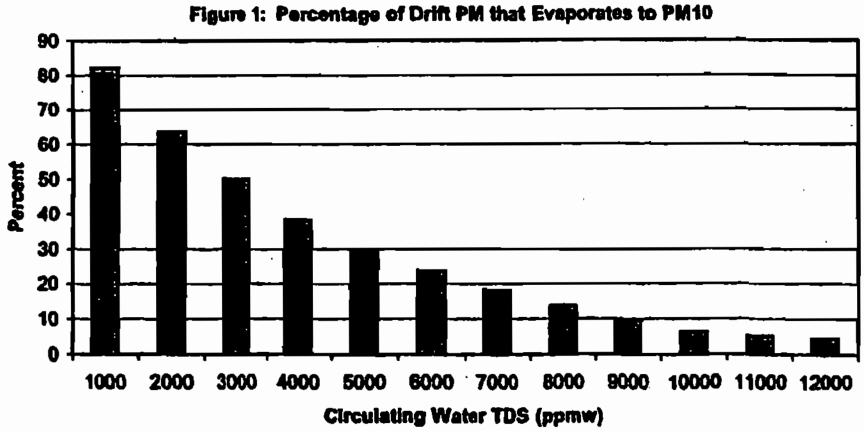
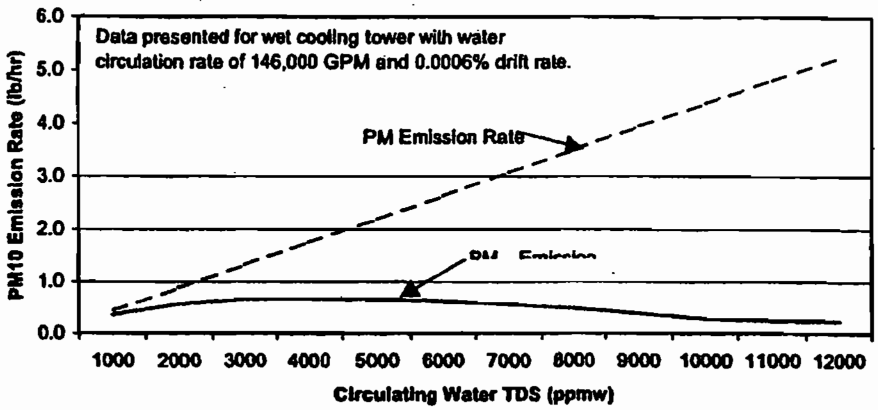


Figure 2: PM_{10} Emission Rate vs. TDS



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1. EPA, 1995. Compilation of Air pollutant Emission Factors, AP-42 Fifth edition, Volume I: *Stationary Point and Area Sources*, Chapter 13.4 Wet Cooling Towers, http://www.epa.gov/ttn/chief/ap42/, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, January.

2. Aull, 1999. Memorandum from R. Aull, Brentwood Industries to J. Reisman, Greystone, December 7, 1999.

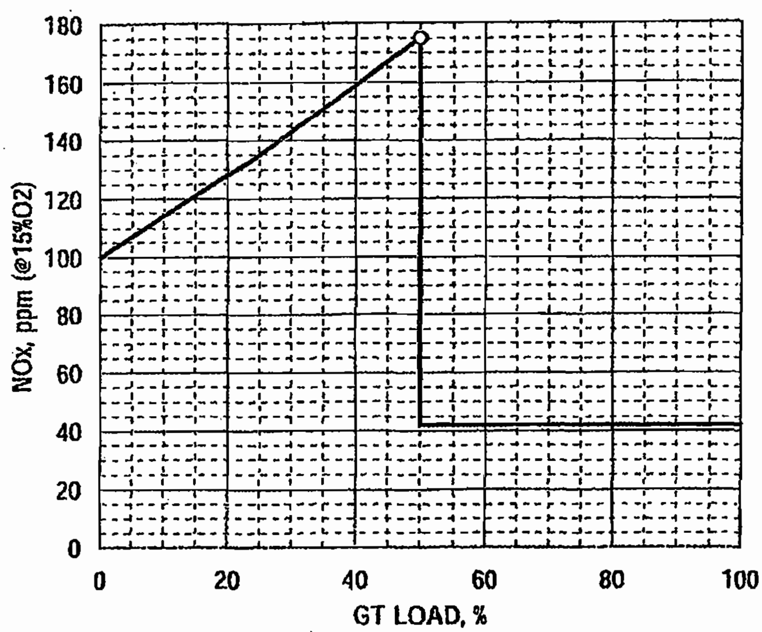
KEY WORDS

Drift
Drift eliminators
Cooling tower
PM_{10} emissions
TDS

MPS 501G COMBUSTION TURBINE
NO_x AND CO EMISSION CURVES AND TABLES

EXPECTED NOx EMISSION vs GT LOAD

GT MODEL	:M501G1
TYPE OF COMBUSTOR	:Dry Low NOx
TYPE OF FUEL	:FUEL OIL as per Mitsubishi Liquid Fuel Specification (E00-02646 R0)
NOx CONTROL	:Water Injection



GT LOAD	%	0	5	10	15	20	25	30	35	40	45	50
NOx	ppm,15%O2	100	107	114	121	128	135	143	151	169	167	175

GT LOAD	%	50	55	60	65	70	75	80	85	90	95	100
NOx	ppm,15%O2	42	42	42	42	42	42	42	42	42	42	42

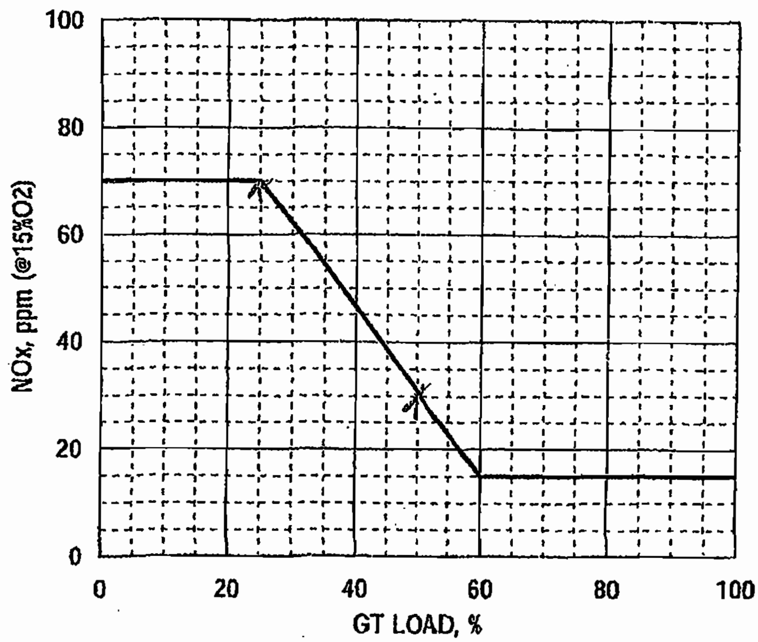
REMARKS :Values given are based on 0.015wt% of Fuel Bound Nitrogen in the Fuel

EXPECTED NOx EMISSION vs GT LOAD

GT MODEL : M501G1

TYPE OF COMBUSTOR : Dry Low NOx

TYPE OF FUEL : NATURAL GAS as per Mitsubishi Gas Fuel Specification (E00-01170 R5)



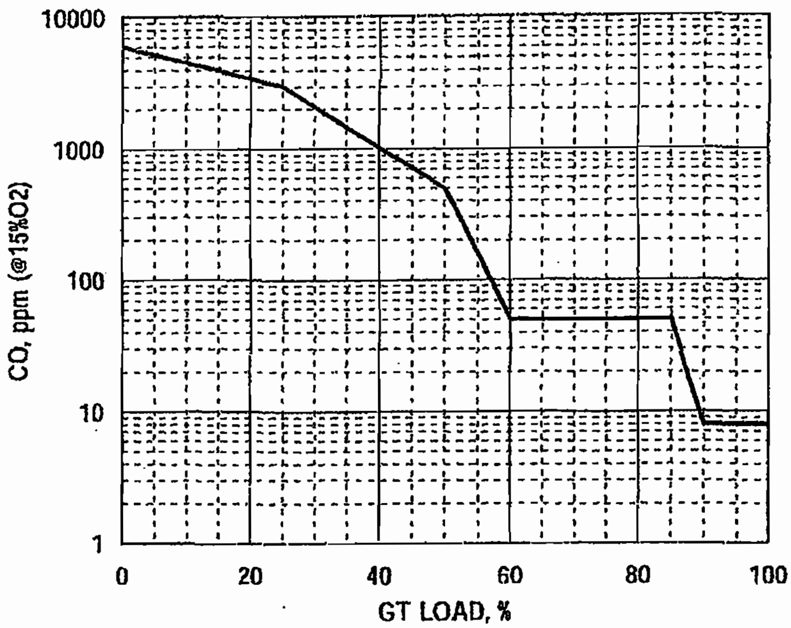
GT LOAD	%	0	5	10	15	20	25	30	35	40	45
NOx	ppm,15%O2	70	70	70	70	70	70	62.2	54.3	46.5	38.6

GT LOAD	%	50	55	60	65	70	75	80	85	90	95	100
NOx	ppm,15%O2	30.8	22.9	15	15	15	15	15	15	15	15	15

REMARKS : Values given are based on no Fuel Bound Nitrogen in the Fuel

EXPECTED CO EMISSION vs GT LOAD

GT MODEL	: M501G1
TYPE OF COMBUSTOR	: Dry Low NOx
TYPE OF FUEL	: FUEL OIL as per Mitsubishi Liquid Fuel Specification (E00-02646 R0)
NOx CONTROL	: Water Injection

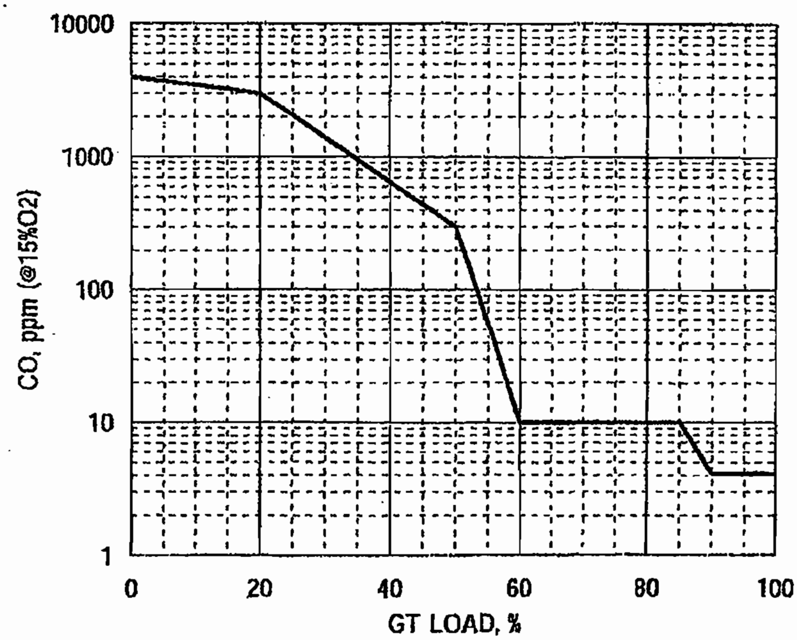


GT LOAD	%	0	5	10	15	20	25	30	35	40	45
CO	ppm,15%O2	6000	5224	4548	3959	3447	3000	2097	1466	1024	716

GT LOAD	%	50	55	60	65	70	75	80	85	90	95	100
CO	ppm,15%O2	500	159	50	50	50	50	50	50	8	8	8

EXPECTED CO EMISSION vs GT LOAD

GT MODEL	: M501G1
TYPE OF COMBUSTOR	: Dry Low NOx
TYPE OF FUEL	: NATURAL GAS as per Mitsubishi Gas Fuel Specification (E00-01170 R5)



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GT LOAD	%	0	5	10	15	20	25	30	35	40	45
CO	ppm,15%O2	4000	3723	3465	3224	3000	2044	1393	949	647	441

GT LOAD	%	50	55	60	65	70	75	80	85	90	95	100
CO	ppm,15%O2	300	54.8	10	10	10	10	10	10	4.1	4.1	4.1

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APPENDIX B

BEST AVAILABLE CONTROL TECHNOLOGY FOR THE PROPOSED COMBUSTION TURBINES

APPENDIX B

BEST AVAILABLE CONTROL TECHNOLOGY FOR THE PROPOSED COMBUSTION TURBINES

B.1 NEW SOURCE PERFORMANCE STANDARDS

BACT is a case-by-case emission limitation for each applicable pollutant, based on the maximum degree of emission reduction after taking into account the energy, environmental, and economic impacts, and other costs. The BACT cannot be any less stringent than any applicable new source performance standards (NSPS) and consideration must be given to the applicable NSPS in the determination of BACT. This requirement also applies for any applicable National Emission Standard for Hazardous Air Pollutants promulgated under 40 CFR Part 61.

EPA updated NSPS for Stationary Combustion Turbines that will commence construction after February 18, 2005. These NSPS, Subpart KKKK, replaced Subparts GG and Da for combustion turbines in combined cycle mode. The Subpart KKKK requirements supersede the Subpart GG requirements and apply to units with a gross capacity of greater than 1 MW. The Subpart KKKK requirements applicable to combustion turbines greater than 30 MW apply to CT/HRSG trains associated with WCEC Unit 3. NO_x emissions are limited to 15 ppm corrected to 15 percent oxygen or 0.43 lb/MW-hr for gas-firing and 42 ppm corrected to 15 percent oxygen or 1.3 lb/MW-hr for light oil firing. For SO_2 emissions, the proposed Subpart KKKK requirements limit emissions to 0.9 lb/MW-hr or a potential total sulfur content equivalent to 0.06 lb/MMBtu if multiple fuels are fired.

The combined CT and duct burner emissions rate proposed for WCEC Unit 3 when firing natural gas with SCR, 2.0 ppmvd corrected to 15-percent O_2, is equivalent to about 0.06 lb/MW-hr or over 7 times lower than the Subpart KKKK NSPS. When firing light oil, the proposed NO_x emission rate of 8 ppmvd corrected to 15-percent O_2 is equivalent to about 0.2 lb/MW-hr or over 5 times lower than the proposed Subpart KKKK NSPS.

B.2 BEST AVAILABLE CONTROL TECHNOLOGY

The "top-down" analysis for determining BACT, as provided for in EPA's Draft 1990 New Source Review Workshop Manual was considered in evaluating BACT for the Project. The procedure involves five steps: identification of control technologies, elimination of technically infeasible control technologies, a ranking of the control technologies, an evaluation of the effective control technologies, and the selection of BACT.

The identification of control technologies is developed from the information obtained from the BACT/lowest achievable emission rate (LAER) database maintained by EPA Region 4 in their National Combustion Turbine List. LAER is distinctly different from BACT in that there is no consideration of economic, energy, or environmental impacts; if a control technology has previously been installed, it must be required as LAER. LAER is defined as follows:

> Lowest achievable emission rate means, for any source, the more stringent rate of emissions based on the following: (i) The most stringent emissions limitation which is contained in the implementation plan of any State of such class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable; or (ii) The most stringent emissions limitation which is achieved in practice by such class or category of stationary source. This limitation, when applied to a modification, means the lowest achievable emissions rate for the new or modified emissions units within the stationary source. In no event shall the application of this term permit a proposed new modified stationary source to emit any pollutant in excess of the amount allowable under applicable new source standards of performance (40 CFR 51, Appendix S.II, A.18).

The elimination of infeasible technologies is based on those engineering aspects that would preclude a technology's use due to physical, chemical or other engineering consideration. Control technologies that are technically feasible are ranked by control effectiveness, with determination of the environmental, economic and energy costs; and benefits of the control technologies. This information forms the basis for the case-by-case consideration of environmental, energy, and economic impacts. The "top" feasible control alternative is selected unless it can be rejected based on economic, environmental, or energy considerations. This section of Appendix B presents information related to the proposed BACT emission limitation.

B.2.1 NITROGEN OXIDES

Identification of NO_x Control Technologies

NO_x emissions from combustion of fossil fuels consist of thermal NO_x and fuel-bound NO_x. Thermal NO_x is formed from the reaction of oxygen and nitrogen in the combustion air at combustion temperatures. Formation of thermal NO_x depends on the flame temperature, residence time, combustion pressure, and air-to-fuel ratios in the primary combustion zone. The design and operation of the combustion chamber dictates these conditions. Fuel-bound NO_x is created by the oxidation of volatilized nitrogen in the fuel. Nitrogen content in the fuel is the primary factor in its formation.

A comprehensive listing of the BACT/LAER decisions made by state environmental agencies and EPA regional offices for gas turbines including duct firing can be found on the EPA Region 4 website (http://www.epa.gov/Region4/air/permits). This database was developed and is maintained by EPA Region 4 from information obtained from the BACT/LAER Information System (BLIS) database maintained at EPA's National Computer Center located at Research Triangle Park, North Carolina.

Historically, the most stringent NO_x controls for CTs established as BACT/LAER by state agencies were combustion controls with selective catalytic reduction (SCR) and combustion controls alone. SCR is a post-combustion control, while advanced dry low-NO_x (DLN) combustors minimize the formation of NO_x in the combustion process. When SCR has been employed, DLN combustion technology is used to minimize the NO_x emissions formed in the combustion process.

Wet injection was the first combustion technology introduced for CTs (pre-1980s) and was the primary method of reducing NO_x emissions from CTs prior to the 1990s. Indeed, this method of control was first mandated by the NSPS to reduce NO_x levels to 75 ppmvd (corrected to 15-percent O_2 and heat rate). Development of improved wet injection combustors reduced NO_x concentrations to 25 ppmvd (corrected to 15-percent O_2) when burning natural gas. Wet injection is still the only means of reducing NO_x formation in the combustion process when firing oil.

The DLN combustion technology has been developed and made available since the early 1990s for gas turbines to achieve emission levels of 25 ppmvd corrected to 15-percent O_2. More recently, however, CT manufacturers have developed DLN combustors that can reduce NO_x concentrations to 9 ppmvd (corrected to 15-percent O_2) when firing natural gas.

SCR is an available and demonstrated control technology for NO_x control or combined cycle units, which has been installed or permitted in over 100 projects. Beginning in the late 1980s and early 1990s, SCR was initially installed on cogeneration facilities with capacities of 50 MW or less. Most of these projects were in California. Many of these initial SCR projects were located in the Southern California NO_2 nonattainment area where SCR was required not as BACT but as LAER, a more stringent requirement. As noted previously, there are distinct regulatory and policy differences between LAER and BACT. As discussed in Subsection 3.2.2, BACT involves an evaluation of the economic, environmental, and energy impacts of alternative control technologies. In contrast, LAER only considers the technical aspects of control.

Beginning in the mid-1990s, projects with SCR have been installed throughout the United States. A majority of these projects are for natural gas-fired combined cycle facilities. The size of these projects ranges from 22 MW to over 1,000 MW. While many of the facilities have distillate oil as backup fuel, distillate oil generally is restricted by permit to 1,000 hours or less per CT.

Reported and permitted NO_x removal efficiencies of SCR range from 40 to over 80 percent of NO_x in the exhaust gas stream. The most common BACT emission limiting standard over the last 3 years has ranged from 2.0 to 2.5 ppmvd corrected to 15 percent O_2 or less for natural gas firing when using DLN and SCR. The most common emission limiting standard established as LAER is 2.0 ppmvd corrected to 15-percent O_2 or less for natural gas firing and using SCR.

Other available control technologies that have become available for controlling NO_x emissions from CTs include $SCONO_x$™ and XONON™. $SCONO_x$™ is an add-on control using absorption and chemical conversion to remove NO_x formed from combustion, while XONON™ is a catalytic combustion system integral to the turbine. Other potential technologies used in combustion process for NO_x removal include: NO_xOUT, Thermal $DeNO_x$, and a nonselective catalytic reduction system (NSCR).

<u>Technology Descriptions and Feasibility</u>

Wet Injection

The injection of water or steam in the combustion zone of CTs reduces the flame temperature with a corresponding decrease of NO_x emissions. The amount of NO_x reduction possible depends on the combustor design and the water-to-fuel ratio employed. An increase in the water-to-fuel ratio will cause a concomitant decrease in NO_x emissions until flame instability occurs. At this point, operation of the CT becomes inefficient and unreliable, and significant increases in products of incomplete combustion result (i.e., CO and VOC emissions). Wet injection is the only current feasible means of reducing NO_x emissions in the combustion process when firing oil.

DLN Combustor

In the past several years, CT manufacturers have offered and installed machines with DLN combustors. These combustors, which are offered on conventional machines manufactured by General Electric (GE), Siemens Westinghouse, Mitsubishi Heavy Industries (MHI), and ABB, can achieve NO_x concentrations of 35 ppmvd or less when firing natural gas. All these vendors have offered DLN combustors on advanced heavy-duty industrial turbines. Thermal NO_x formation is inhibited by using combustion techniques where the natural gas and combustion air are premixed before ignition. For the CT being considered for the project, the combustion chamber design includes the use of DLN combustor technology when firing natural gas. The NO_x emission level when firing natural gas at baseload conditions is 15 ppmvd (corrected to 15-percent O_2) for Mitsubishi Power Systems 501G CTs, which are guaranteed by the selected vendor for the project.

Selective Catalytic Reduction

Selective Catalytic Reduction (SCR) uses ammonia (NH_3) to react with NO_x in the gas stream in the presence of a catalyst. NH_3, which is diluted with air to about 5 percent by volume, is introduced into the gas stream at reaction temperatures between 600 and 750°F. The reactions are as follows:

$$4NH_3 + 4NO + O_2 \rightarrow 4N_2 + 6H_2O$$

$$4NH_3 + 2NO_2 + O_2 \rightarrow 3N_2 + 6H_2O$$

SCR operating experience, as applied to gas turbines, consists primarily of baseload natural gas-fired installations either of cogeneration or combined cycle configuration. Exhaust gas temperatures of simple cycle CTs generally are in the range of 1,000°F, which exceeds the optimum range for SCR with base metal catalysts. All current SCR applications have the catalyst placed in the HRSG to achieve proper reaction conditions. This allows a relatively constant temperature for the reaction of NH_3 and NO_x on the catalyst surface.

The use of SCR has been primarily limited to combined-cycle facilities that burn natural gas with small amounts of fuel oil. Initially, the traditional metal catalysts used in SCR systems were contaminated by sulfur-containing fuels. For most fuel oil-burning facilities, the catalyst operation was discontinued or the exhaust bypassed the SCR system. This was due to the formation of ammonium salts (ammonium sulfate and bisulfate) resulting from the reaction of NH_3 and sulfur combustion products. Ammonium bisulfate can be corrosive and could cause damage to the HRSG surfaces that follow the catalyst, as well as to the stack. Corrosion protection for these areas would be required with concomitant cost and technical requirements. Ammonium sulfate is also emitted as particulate matter. While the formation of ammonium salts is primarily associated with oil firing, sulfur combustion products from natural gas also could form small amounts of ammonium salts. Ceramic and specially designed catalysts have been designed to overcome the problems with base-metal catalysts. The sulfur in No. 2 distillate oil has also been reduced from 0.5 percent available in the early 1990s to 0.05 percent. Beginning in 2007, the sulfur content for transportation diesel fuel has been mandated by EPA to be reduced to 0.0005 percent. This ultra low-sulfur light oil will be available and has a sulfur content equivalent to natural gas. In addition, HRSG designs can accommodate the impacts of the formation of ammonium salts.

For combined cycle units, SCR is an available, technically feasible, and demonstrated technology.

SCONO$_x$™ Process

SCONO$_x$™ is a NO_x and CO control system exclusively offered by Goal Line Environmental Technologies (GLET). GLET is a partnership formed by Sunlaw Energy Corporation and Advanced Catalyst Systems, Inc. In 1998, ABB acquired the exclusive license for the technology in the United States for control applications larger than 100 MW.

The SCONO$_x$™ system employs a single catalyst to simultaneously oxidize CO to CO_2 and NO to NO_2. NO_2 formed by the oxidation of NO is subsequently absorbed onto the catalyst surface through the use of a potassium carbonate absorber coating. The SCONO$_x$™ oxidation/absorption cycle reactions are:

$$CO + \tfrac{1}{2} O_2 \rightarrow CO_2 \quad (1)$$

$$NO + \tfrac{1}{2} O_2 \rightarrow NO_2 \quad (2)$$

$$2NO_2 + K_2CO_3 \rightarrow CO_2 + KNO_2 + KNO_3 \quad (3)$$

CO_2 produced by reactions (1) and (2) is released to the atmosphere as part of the CT/HRSG exhaust gas stream.

As shown in Reaction (3), the potassium carbonate catalyst coating reacts with NO_2 to form potassium nitrites and nitrates. Prior to saturation of the potassium carbonate coating, the catalyst must be regenerated. This regeneration is accomplished by passing a dilute hydrogen-reducing gas across the surface of the catalyst in the absence of O_2. Hydrogen in the reducing gas reacts with the nitrites and nitrates to form water and elemental nitrogen. CO_2 in the regeneration gas reacts with potassium nitrites and nitrates to form potassium carbonate; this compound is the catalyst absorber coating present on the surface of the catalyst at the start of the oxidation/absorption cycle. The SCONO$_x$™ regeneration cycle reaction is:

$$KNO_2 + KNO_3 + 4H_2 + CO_2 \rightarrow K_2CO_3 + 4H_2O\,(g) + N_2 \quad (4)$$

Water vapor and elemental nitrogen are released to the atmosphere as part of the CT/HRSG exhaust stream. Following regeneration, the SCONO$_x$™ catalyst has a fresh coating of potassium carbonate, allowing the oxidation/absorption cycle to begin again. There is no net gain or loss of potassium carbonate after both the oxidation/absorption and regeneration cycles have been completed.

Since the regeneration cycle must take place in an oxygen-free environment, the section of catalyst undergoing regeneration is isolated from the exhaust gas stream using a set of louvers. Each catalyst section is equipped with a set of upstream and downstream louvers. During the regeneration cycle, these louvers close and valves open allowing fresh regeneration gas to enter and spent regeneration gas to exit the catalyst section being regenerated. At any given time, 75 percent of the catalyst sections will be in the oxidation/absorption cycle, while 25 percent will be in regeneration mode. A regeneration cycle is typically set to last for 3 to 5 minutes.

Regeneration gas is produced by reacting natural gas with O_2 present in ambient air. The SCONO$_x$™ system uses a gas generator produced by Surface Combustion. This unit uses a two-stage process to produce hydrogen and carbon dioxide. In the first stage, natural gas and ambient air are reacted across a partial oxidation catalyst at 1,900°F to form CO and hydrogen. Steam is added and the gas mixture is then passed across a low temperature shift catalyst, forming CO_2 and additional hydrogen. The resulting gas stream is diluted to less than 4 percent hydrogen using steam or another inert gas. The regeneration gas reactions are:

$$CH_4 + \frac{1}{2} O_2 + 1.88\ N_2 \rightarrow CO + 2H_2 + 1.88\ N_2 \qquad (5)$$

$$CO + 2H_2 + H_2O + 1.88\ N_2 \rightarrow CO_2 + 3H_2 + 1.88\ N_2 \qquad (6)$$

The SCONO$_x$™ operates at a temperature range of 300 to 700°F and, therefore, must be installed in the appropriate temperature section of a HRSG. For SCONO$_x$™ systems installed in locations of the HRSG above 500°F, a separate regeneration gas generator is not required. Instead, regeneration gas is produced by introducing natural gas directly across the SCONO$_x$™ catalyst that reforms the natural gas.

The SCONO$_x$™ system catalyst is subject to reduced performance and deactivation due to exposure to sulfur oxides. For this reason, an additional catalytic oxidation/absorption system (SCOSO$_x$™) to remove sulfur compounds is installed upstream of the SCONO$_x$™ catalyst. During regeneration of the SCONO$_x$™ catalyst, either hydrogen sulfide or SO_2 is released to the atmosphere as part of the

CT/HRSG exhaust gas stream. The absorption portion of the $SCOSO_x$™ process is proprietary. $SCOSO_x$™ oxidation/absorption and regeneration reactions are:

$$CO + \frac{1}{2} O_2 \rightarrow CO_2 \quad (7)$$

$$SO_2 + \frac{1}{2} O_2 \rightarrow SO_3 \quad (8)$$

$$SO_3 + SORBER \rightarrow [SO_3 + SORBER] \quad (9)$$

$$[SO_3 + SORBER] + 4\,H_2 \rightarrow H_2S + 3\,H_2O \quad (10)$$

Utility materials needed for the operation of the $SCONO_x$™ control system include ambient air, natural gas, water, steam, and electricity. The primary utility material is natural gas used for regeneration gas production. Steam is used as the carrier/dilution gas for the regeneration gas. Electricity is required to operate the computer control system, control valves, and louver actuators.

Commercial experience to date with the $SCONO_x$™ control system is limited to one small combined cycle power plant located in Los Angeles. This power plant, owned by GLET partner Sunlaw Energy Corporation, utilizes a GE LM2500 turbine (30-MW size) equipped with water injection to control NO_x emissions to approximately 25 ppmvd. The $SCONO_x$™ control system was installed at the Sunlaw Energy facility in December 1996 and has achieved a NO_x exhaust concentration of 3.5 ppmvd resulting in an approximate 85-percent NO_x removal efficiency.

A second $SCONO_x$™ system was installed at the Genetics Institute Facility in Andover, Massachusetts, in late 1998. The system is installed on a 5-MW Caterpillar Solar Turbine with a Deltak boiler. The NO_x emission limit is 2.5 ppmvd at 15-percent O_2. ABB Environmental reports that the system is operating successfully, although there have been incidents of high NO_x emissions that ABB Environmental attributes to combustion control problems and not to the $SCONO_x$™ system.

The $SCONO_x$™ system is currently marketed as EMx™ by EmerChem, LLC of Knoxville, Tennessee. EmerChem indicates that improvements have been made in $SCONO_x$™ system that reduce potential costs and improve performance. However, application are still limited to a few small turbines with no systems installed on large (>80 MW) industrial CTs. ABB Environmental does not list the $SCONO_x$™ system as a marketed product.

XONON™ Catalytic Combustor

Catalytic combustors are being developed for low emission applications on turbines where the catalyst is internal to the combustion system. The XONON™ Combustion System is a catalytic combustion system developed by Catalytica Combustion Systems, Inc., that can achieve low emission levels of NO_x, CO, and VOCs. The XONON™ system combusts the fuel over a catalyst, reducing the temperature of combustion and providing for more complete combustion of the fuel. The system is referred to as "flameless combustion" where temperatures are below those where limited NO_x formation occurs. However, the exhaust temperatures, from a CT standpoint, are still sufficient for the expansion of the gases through the turbine for power generation. Emission levels of NO_x at less than 2 ppm have been reported for the 1.5-MW Kawasaki gas turbine located at Sun Valley Power. XONON™ is currently only being commercialized for turbines in the 1- to 15-MW range. In September 2006, the XONON™ Combustion System (referred to as the XONON Cool Combustion® technology) was sold to Kawasaki Heavy Industries, Ltd. Application of this technology have continued to be in the 1- to 15-MW range with no applications on large (>80 MW) industrial combustion turbines.

NO_xOUT Process

The NO_xOUT process originated from the initial research by the Electric Power Research Institute (EPRI) in 1976 on the use of urea to reduce NO_x. EPRI licensed the proprietary process to Fuel Tech, Inc., for commercialization. In the NO_xOUT process, aqueous urea is injected into the flue gas stream ideally within a temperature range of 1,600 to 1,900°F. In the presence of oxygen, the following reaction results:

$$CO(NH_2)_2 + 2NO + \frac{1}{2} O_2 \rightarrow 2N_2 + CO_2 + 2H_2O$$

The amount of urea required is most cost-effective when the treatment rate is 0.5 to 2 moles of urea per mole of NO_x. In addition to the original EPRI urea patents, Fuel Tech claims to have a number of proprietary catalysts capable of expanding the effective temperature range of the reaction to between 1,600 and 1,950°F. Advantages of the system are as follows:

1. Low capital and operating costs as a result of use of urea injection; and
2. The proprietary catalysts used are nontoxic and nonhazardous, thus eliminating potential disposal problems.

Disadvantages of the system are as follows:

1. Formation of ammonia from excess urea treatment rates and/or improper use of reagent catalysts, and
2. Sulfur trioxide (SO_3), if present, will react with ammonia created from the urea to form ammonium bisulfate, potentially plugging the cold-end equipment downstream.

Commercial application of the NO_xOUT system is limited and the NO_xOUT system has not been demonstrated on any CT/HRSG unit.

The NO_xOUT process is not technically feasible for the proposed project because of the high application temperature of 1,600 to 1,950°F. The maximum exhaust gas temperature of the "F" Class CT is about 1,100°F. Raising the exhaust temperature the required amount essentially would require installation of a heater. This would be economically prohibitive and would result in an increase in fuel consumption, an increase in the volume of gases that must be treated by the control system, and an increase in uncontrolled air emissions, including NO_x.

Thermal DeNO_x

Thermal DeNO_x is Exxon Research and Engineering Company's patented process for NO_x reduction. The process is a high-temperature selective noncatalytic reduction (SNCR) of NO_x using ammonia as the reducing agent. Thermal DeNO_x requires the exhaust gas temperature to be above 1,800°F. However, use of ammonia plus hydrogen lowers the temperature requirement to about 1,000°F. For some applications, this must be achieved by additional firing in the exhaust stream before ammonia injection.

The only known commercial applications of Thermal DeNO_x are on heavy industrial boilers, large furnaces, and incinerators that consistently produce exhaust gas temperatures above 1,800°F. There are no known applications on or experience with CTs. Temperatures of 1,800°F require alloy materials constructed with very large piping and components since the exhaust gas volume would be increased by several times. As with the NO_xOUT process, high capital, operating, and maintenance costs are expected because of material requirements, an additional duct burner system, and fuel consumption. Uncontrolled emissions would increase because of the additional fuel burning.

Thus, the Thermal DeNO_x process will not be considered for the proposed project since its high application temperature makes it technically infeasible. The maximum exhaust gas temperature of an

"F" Class CT is typically 1,100°F; the cost to raise the exhaust gas to such a high temperature is prohibitively expensive.

Nonselective Catalytic Reduction

Certain manufacturers, such as Engelhard, market an NSCR for NO_x control on reciprocating engines. The NSCR process requires a low-oxygen content in the exhaust gas stream and high temperature (700 to 1,400°F) in order to be effective. CTs have the required temperature but also have high oxygen levels (greater than 12 percent) and, therefore, cannot use the NSCR process. As a result, NSCR is not a technically feasible add-on NO_x control device for CTs.

Technology Demonstration and Feasibility

The combustion controls using DLN combustors for the CT and low-NO_x burners for duct firing are available, demonstrated, and technically feasible for CTs in either simple cycle or combined cycle configuration. The DLN combustion technology alone can achieve 15 ppm (corrected to 15-percent O_2 dry conditions) when firing natural gas.

The technical evaluation of NO_xOUT, Thermal DeNO_x, and NSCR indicate that these processes have not been applied to combined cycle systems and are technically infeasible for the project because of process constraints (e.g., temperature). The SCONO_x™ control technology is available but not considered to be technically feasible because it has not been commercially demonstrated on large industrial CTs. The CTs planned for the project are Mitsubishi Power Systems 501Gs that have a nominal generating capacity of 250 MW, which is at least ten times larger than the nominal 25-MW GE LM2500 utilized at the Sunlaw Energy Corporation Los Angeles facility. Technical problems associated with scale-up of the SCONO_x™ technology are unknown given the large differences in machine flow rates. Additional concerns with the SCONO_x™ control technology include process complexity (multiple catalytic oxidation/absorption/regeneration systems), reliance on only one supplier, and relatively brief operating history of the technology. While the XONON™ catalytic combustion system is applied directly to the CT, application on a large combined cycle unit has not been demonstrated. For these reasons, the SCONO_x™ and XONON™ are still considered in the commercial demonstration stage. SCR is commercially available, technically feasible, and demonstrated for combined cycle units.

For combined cycle operation, the combination of DLN combustion technology and water injection with SCR is a technically feasible alternative that can achieve a maximum degree of emission reduction. The combined technology is capable of achieving a NO_x emission levels of 2.0 ppm when firing natural gas (corrected to 15-percent O_2 dry conditions) and 8 ppm when firing ultra low sulfur light oil (corrected to 15-percent O_2 dry conditions).

Below is a summary of the technical availability, demonstration and feasibility for the proposed project:

	Combined Cycle
Technology	Status
Selective Catalytic Reduction	Available, Demonstrated and Feasible
DLN Combustors	Available, Demonstrated and Feasible for gas firing
Wet Injection	Available, Demonstrated or Feasible for oil firing
$SCONO_x$	Available, Not Demonstrated
XONON™	Not Demonstrated
Thermal $DeNO_x$	Not Available or Feasible
NO_xOut	Not Available or Feasible
NSCR	Not Available or Feasible

SCR Cost Estimates

Tables B-1 and B-2 present the total capital and annualized costs of SCR and $SCONO_x$™ applied to a CT/HRSG train. The costs were developed using EPA Cost Control Manual (EPA; 1990, 1993) and vendor-based estimates for each control system. Standard EPA-recommended cost factors were used. A capital recovery period of 15 years was used for the capital costs.

Comparison of Economic, Environmental, and Energy Impacts

Table 4-2 presented a comparison of the economic, environmental, and energy impacts associated with the control alternatives. Table B-3 presents the potential emissions resulting from the formation of ammonium salts (i.e., particulate matter), ammonia slip, and secondary emissions.

B.2.2 CARBON MONOXIDE

Identification of CO Control Technologies

CO emissions are a result of incomplete or partial combustion of fossil fuel. Combustion design and catalytic oxidation are the control alternatives that are viable for the project. LAER/BACT decisions for CO emissions from CTs can be found in EPA Region 4's National Combustion Turbine List. Combustion design is the more common control technique used in CTs. Sufficient time, temperature, and turbulence are required within the combustion zone to maximize combustion efficiency and minimize the emissions of CO. Combustion efficiency is dependent upon combustor design.

Catalytic oxidation is a post-combustion control that has been employed in CO nonattainment areas where regulations have required CO emission levels to be less than those associated with combustion controls alone. These installations have been required to use LAER technology and typically have CO limits of 2 ppmvd (corrected to 15 percent oxygen-dry conditions).

Technology Description

In an oxidation catalyst control system, CO emissions are reduced by allowing unburned CO to react with oxygen at the surface of a precious metal catalyst, such as platinum. Combustion of CO starts at about 300°F, with an efficiency of 90 percent occurring at temperatures above 600°F. Catalytic oxidation occurs at temperatures 50 percent lower than that of thermal oxidation, which reduces the amount of thermal energy required. For CTs, the oxidation catalyst can be located directly after the CT. Catalyst size depends upon the exhaust flow, temperature, and desired efficiency.

Oxidation Catalyst Costs

Tables B-4 and B-5 present the capital and annualized costs for an oxidation catalyst installed in the HRSG of each CT/HRSG option.

Comparison of Economic, Environmental, and Energy Impacts

Table 4-3 presented a comparison of the economic, environmental, and energy impacts associated with the top control alternatives for each combined cycle unit. Table B-6 presents the potential emissions resulting from secondary emissions. Secondary emissions result from generation lost due to the back pressure of the oxidation catalyst. The maximum CO impacts are less than 0.5 percent of the applicable ambient air quality standards. There would also be no secondary benefits, such as reducing acidic deposition, to reducing CO.

TABLE B-1
CAPITAL COST FOR SELECTIVE CATALYTIC REDUCTION AND SCONO$_x$™ FOR THE FRAME G COMBINED CYCLE COMBUSTION TURBINE
(2.0 ppmvd corrected for gas firing)

Cost Component	Costs for SCR	Costs for SCONO$_x$™	Basis of Cost Component
Direct Capital Costs			
Pollution Control Equipment	$3,287,798	$20,711,700	Vendor Estimates
Ammonia Storage Tank	$163,912	$0	$35 per 1,000 lb mass flow developed from vendor quotes
Flue Gas Ductwork	$44,505	$69,725	Vatavauk,1990
Instrumentation	$50,000	$50,000	Additional NO_x Monitor and System
Taxes	$197,268	$1,242,702	6% of SCR Associated Equipment and Catalyst
Freight	$164,390	$1,035,585	5% of SCR Associated Equipment
Total Direct Capital Costs (TDCC)	$3,907,873	$23,109,712	
Direct Installation Costs			
Foundation and supports	$312,630	1,848,777	8% of TDCC and RCC;OAQPS Cost Control Manual
Handling & Erection	$547,102	3,235,360	14% of TDCC and RCC;OAQPS Cost Control Manual
Electrical	$156,315	924,388	4% of TDCC and RCC;OAQPS Cost Control Manual
Piping	$78,157	462,194	2% of TDCC and RCC;OAQPS Cost Control Manual
Insulation for ductwork	$39,079	231,097	1% of TDCC and RCC;OAQPS Cost Control Manual
Painting	$39,079	231,097	1% of TDCC and RCC;OAQPS Cost Control Manual
Site Preparation	$5,000	$5,000	Engineering Estimate
Buildings	$15,000	$15,000	Engineering Estimate
Total Direct Installation Costs (TDIC)	$1,192,362	$6,952,914	
Total Capital Costs (TCC)	$5,100,235	$30,062,626	Sum of TDCC, TDIC and RCC
Indirect Costs			
Engineering	$390,787	$2,310,971	10% of Total DirectCapital Costs; OAQPS Cost Control Manual
PSM/RMP Plan	$50,000	$0	Engineering Estimate
Construction and Field Expense	$195,394	$1,155,486	5% of TDCC; OAQPS Cost Control Manual
Contractor Fees	$390,787	$2,310,971	10% of TDCC; OAQPS Cost Control Manual
Start-up	$78,157	$462,194	2% of TDCC; OAQPS Cost Control Manual
Performance Tests	$39,079	$231,097	1% of TDCC; OAQPS Cost Control Manual
Contingencies	$117,236	$693,291	3% of TDCC; OAQPS Cost Control Manual
Total Indirect Capital Cost (TInCC)	$1,261,441	$7,164,011	
Total Direct, Indirect and Capital Costs (TDICC)	$6,361,675	$37,226,636	Sum of TCC and TInCC

Sources: Engelhard. ABB Alstom 2000. EPA 1990, 1992 and 1996 (OAQPS Cost Control Manual). Golder 2005. Vatavuk 1990 (Estimating Costs of Air Pollution Control).

TABLE B-2

ANNUALIZED COST FOR SELECTIVE CATALYTIC REDUCTION AND SCONO$_x$™ FOR THE FRAME G IN COMBINED CYCLE OPERATION

(2.0 ppmvd corrected for gas firing)

Cost Component	*Costs for SCR*	*Costs for SCONO$_x$™*	*Basis of Cost Component*
Direct Annual Costs			
Operating Personnel	$21,840	$43,680	28 hours/week at $15/hr for SCR; SCONO$_x$™ 2 times SCR costs
Supervision	$3,276	$6,552	15% of Operating Personnel;OAQPS Cost Control Manual
Ammonia	$257,168	$0	$600 per ton NH_3 based on 19% Aqueous NH_3
PSM/RMP Update	$15,000	$0	Engineering Estimate
Inventory Cost	$16,574	$24,860	Capital Recovery (10.98%) for 1/3 catalyst for SCR; SCONO$_x$™ 1.5 times SCR
Catalyst Cost	$452,832	$679,248	3 years catalyst life; Based on Vendor Budget Estimate
Contingency	$23,001	$22,630	3% of Direct Annual Costs
Total Direct Annual Costs (TDAC)	$789,691	$776,971	
Energy Costs			
Electrical	$28,032	$70,080	80kW/h for SCR @ $0.04/kWh times Capacity Factor; 200 kW for SCONO$_x$™
MW Loss and Heat Rate Penalty	$607,480	$1,056,488	0.28 % output for SCR; 0.6% for SCONO$_x$™; EPA, 1993
Steam Costs for SCONO$_x$™	$0	$864,810	22,285 lb/hr 600 °F, 85 psig, steam (1,329 Btu/lb steam); 90% boiler eff.; $3/mmBtu
Natural Gas for SCONO$_x$™	$0	$60,922	100 lb/hr; 0.044 lb/scf; 1,020 Btu/scf; $3/mmBtu
Total Energy Costs (TEC)	$635,512	$2,052,299	
Indirect Annual Costs			
Overhead	169,370	30,139	60% of Operating/Supervision Labor and Ammonia
Property Taxes	63,617	372,266	1% of Total Capital Costs
Insurance	63,617	372,266	1% of Total Capital Costs
Annualized Total Direct Capital	698,512	4,087,485	10.98% Capital Recovery Factor of 7% over 15 years times sum of TDICC
Total Indirect Annual Costs (TIAC)	$995,116	$4,862,157	
Total Annualized Costs	$2,420,319	$7,691,427	Sum of TDAC, TEC and TIAC
Total Cost Effectiveness (35 to 2.0)	$3,602	$11,447	per ton of NO_x Removed
Incremental Cost Effectiveness (2.5 to2.0)	$54	($701)	per incremental ton of NO_x Removed
	671.91	671.91	tons NO_x removed /year; 2.5 ppmvd corrected to 15% oxygen

Source: Golder 2005. EPA 1993 (Alternative Control Techniques Document--NO_x Emissions from Stationary Gas Turbines, Page 6-20).

TABLE B-3

MAXIMUM POTENTIAL INCREMENTAL EMISSIONS (TPY) WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND $SCONO_x$™ (2.0 ppm)

	Incremental Emissions (tons/year) of SCR			Incremental Emissions (tons/year) of $SCONO_x$™	
Pollutants	Primary	Secondary	Total	Primary	Secondary
Particulate	13.43	0.27	13.69		1.52
Sulfur Dioxide		0.10	0.10		0.57
Nitrogen Oxides	-671.91	4.91	-667.01	-671.91	28.03
Carbon Monoxide		2.94	2.94		16.82
Volatile Organic Compounds		0.19	0.19		1.10
Ammonia	155.47				
Total:	-503.02	8.41	-494.61	-671.91	48.04

Basis:	SCR	$SCONO_x$™	$SCONO_x$™
Lost Energy (mmBtu/year)	73,577	420,420 total	307,542 steam and natural gas only

Secondary Emissions (lb/mmBtu): Assumes natural gas firing in NO_x controlled steam unit.

Particulate	0.0072
Sulfur Dioxide	0.0027
Nitrogen Oxides w/LNB	0.1333
Carbon Monoxide	0.0800
Volatile Organic Compounds	0.0052

(Note: Seconary emissions of criteria pollutants for $SCONO_x$™ based on the total lost energy minus steam and natural gas since emissions of these pollutants will be controlled in the proposed unit. Emissions of CO_2 will result for all uses.)

Reference: Table 1.4-1 and 1.4-2, AP-42, Version 2/98.

TABLE B-4
DIRECT AND INDIRECT CAPITAL COSTS FOR CO CATALYST, MPS 501G IN COMBINED CYCLE COMBUSTION TURBINE

Cost Component	Costs	Basis of Cost Component
Direct Capital Costs		
CO Associated Equipment	$939,000	Vendor Quote
Flue Gas Ductwork	$44,505	Vatavauk,1990
Instrumentation	$93,900	10% of SCR Associated Equipment
Sales Tax	$56,340	6% of SCR Associated Equipment/Catalyst
Freight	$46,950	5% of SCR Associated Equipment/Catalyst
Total Direct Capital Costs (TDCC)	$1,180,695	
Direct Installation Costs		
Foundation and supports	$94,456	8% of TDCC and RCC;OAQPS Cost Control Manual
Handling & Erection	$165,297	14% of TDCC and RCC;OAQPS Cost Control Manual
Electrical	$47,228	4% of TDCC and RCC;OAQPS Cost Control Manual
Piping	$23,614	2% of TDCC and RCC;OAQPS Cost Control Manual
Insulation for ductwork	$11,807	1% of TDCC and RCC;OAQPS Cost Control Manual
Painting	$11,807	1% of TDCC and RCC;OAQPS Cost Control Manual
Site Preparation	$5,000	Engineering Estimate
Buildings	$0	
Total Direct Installation Costs (TDIC)	$359,209	
Total Capital Costs	$1,539,904	Sum of TDCC, TDIC and RCC
Indirect Costs		
Engineering	$153,990	10% of Total Capital Costs; OAQPS Cost Control Manual
Construction and Field Expense	$76,995	5% of Total Capital Costs; OAQPS Cost Control Manual
Contractor Fees	$153,990	10% of Total Capital Costs; OAQPS Cost Control Manual
Start-up	$30,798	2% of Total Capital Costs; OAQPS Cost Control Manual
Performance Tests	$15,399	1% of Total Capital Costs; OAQPS Cost Control Manual
Contingencies	$46,197	3% of Total Capital Costs; OAQPS Cost Control Manual
Total Indirect Capital Cost (TInDC)	$477,370	
Total Direct, Indirect and Capital Costs (TDICC)	$2,017,274	Sum of TCC and TInCC

TABLE B-5
ANNUALIZED COST FOR CO CATALYST MPS 501G IN COMBINED CYCLE COMBUSTION TURBINE

Cost Component	Cost	Basis of Cost Estimate
Diirect Annual Costs		
Operating Personnel	$6,240	8 hours/week at $15/hr
Supervision	$936	15% of Operating Personnel;OAQPS Cost Control Manual
Catalyst Replacement	$282,333	3 year catalyst life; base on Vendor Budget Quote
Inventory Cost	$24,668	Capital Recovery (10.98%) for 1/3 catalyst
Contingency	$9,425	3% of Direct Annual Costs
Total Direct Annual Costs (TDAC)	$323,603	
Energy Costs		
Heat Rate Penalty	$297,896	0.2% of MW output; EPA, 1993 (Page 6-20) and $3/mmBtu addl fuel costs
Total Energy Costs (TDEC)	$297,896	
Indirect Annual Costs		
Overhead	$4,306	60% of Operating/Supervision Labor
Property Taxes	$20,173	1% of Total Capital Costs
Insurance	$20,173	1% of Total Capital Costs
Annualized Total Direct Capital	$221,497	10.98% Capital Recovery Factor of 7% over 15 yrs times sum of TDICC
Total Indirect Annual Costs	$266,148	
Total Annualized Costs	$887,647	Sum of TDAC, TEC and TIAC
Cost Effectiveness	$8,667	per ton of CO Removed 102.41 tons/year CO Emissions Removed
	$10,312	per ton of Net Emission Reduction

TABLE B-6
MAXIMUM POTENTIAL INCREMENTAL EMISSIONS (TPY) WITH OXIDATION CATALYST: MPS 501G

	Incremental Emissions (tons/year) of SCR		
Pollutants	**Primary**	**Secondary**	**Total**
Particulate	11.81	0.14	11.95
Sulfur Dioxide		0.05	0.05
Nitrogen Oxides	0.00	2.64	2.64
Carbon Monoxide	-102.4	1.59	-100.8
Volatile Organic Compounds		0.10	0.10
Total:	-90.6	4.53	-86.1

Basis:

Lost Energy (mmBtu/year)	39,630
Secondary Emissions (lb/mmBtu): Assumes natural gas firing in NOx controlled steam unit.	
Particulate	0.0072
Sulfur Dioxide	0.0027
Nitrogen Oxides w/LNB	0.1333
Carbon Monoxide	0.0800
Volatile Organic Compounds	0.0052

Reference: Table 1.4-1 and 1.4-2, AP-42, Version 2/98

APPENDIX C

COMPARISON OF MODEL RESULTS USING LAND USE VALUES FROM THE WCEC SITE AND PBI AIRPORT

TABLE C-1
COMPARISON OF MAXIMUM PM_{10} IMPACTS DUE TO THE PROPOSED PROJECT ONLY
WCEC SITE LAND USE VERSUS PALM BEACH INT'L AIRPORT LAND USE VALUES

Averaging Time	Concentration ($\mu g/m^3$) for Land Use from WCEC Site	Concentration ($\mu g/m^3$) for Land Use from Palm Beach Int'l Airport	EPA Significant Impact Level ($\mu g/m^3$)
CTS ONLY			NA
Annual	0.41	0.58	
	0.43	0.53	
	0.38	0.50	
	0.41	0.55	
	0.37	0.45	
24-Hour, Highest	2.90	6.80	NA
	2.38	3.85	
	2.25	4.33	
	3.63	6.12	
	2.57	6.16	
COOLING TOWERS AND FUEL HEATERS ONLY			
Annual	0.24	0.28	NA
	0.25	0.28	
	0.27	0.30	
	0.25	0.28	
	0.27	0.31	
24-Hour, Highest	1.63	1.82	NA
	1.62	1.60	
	1.77	1.81	
	1.40	1.95	
	1.84	1.99	
ALL SOURCES			
Annual	0.49	0.64	1
	0.52	0.63	
	0.47	0.59	
	0.50	0.61	
	0.45	0.52	
24-Hour, Highest	3.06	7.00	5
	2.60	4.06	
	2.56	4.48	
	3.92	6.36	
	2.95	6.37	

Note: NA = not applicable

Concentrations are based on concentrations predicted using five years of meteorological data from 2001 to 2005 of surface and upper air data from the National Weather Service stations at Palm Beach International Airport and Miami, respectively.

APPENDIX D

SO_2 AND PM EMISSION DATA FOR BACKGROUND SOURCES

TABLE D-1

SUMMARY OF THE SO_2 FACILITIES CONSIDERED FOR INCLUSION IN THE AAQS AND PSD CLASS II AIR MODELING ANALYSES BASED ON SOURCE GROUP BY DISTANCE AND DIRECTION

AIRS Number	Facility	County	UTM Coordinates East (km)	UTM Coordinates North (km)	Relative to WCEC [a] X (km)	Relative to WCEC [a] Y (km)	Relative to WCEC [a] Distance (km)	Relative to WCEC [a] Direction (deg)	Maximum SO_2 Emissions (TPY)	Q, (TPY) Emission Threshold [b,c] (Dist - SID) x 20	Include in Modeling Analysis ?
Modeling Area [d]											
0990646	FPL West County Energy Center (WCEC)	Palm Beach	562.2	2953.0	0.0	0.4	0.4	358	436.2	SIA	YES
0990530	HUBBARD CONSTRUCTION COMPANY	Palm Beach	562.8	2952.0	0.6	-0.7	0.9	139	19.5	SIA	YES
0990349	SFWMD Pump Station S-5A	Palm Beach	562.6	2951.3	0.3	-1.3	1.4	165	3.9	SIA	YES
Screening Area [d]											
0990016	ATLANTIC SUGAR ASSOCIATION	Palm Beach	552.9	2945.2	-9.3	-7.5	11.9	231	554.7	198	YES
0990019	OSCEOLA FARMS	Palm Beach	544.2	2968.0	-18.0	15.3	23.7	310	640.0	433	YES
0990234	SOLID WASTE AUTHORITY OF PBC	Palm Beach	584.5	2961.3	22.3	8.6	23.9	69	834.2	438	YES
0990021	UNITED TECHNOLOGIES CORPORATION	Palm Beach	568.4	2975.8	6.2	23.2	24.0	15	570.7	440	YES
0990026	SUGAR CANE GROWERS CO-OP	Palm Beach	534.9	2953.3	-27.3	0.6	27.3	271	2,081.9	506	YES
0990061	U.S.SUGAR CORP. BRYANT MILL	Palm Beach	537.8	2969.1	-24.4	16.5	29.4	304	1,136.6	548	YES
0990045	CITY OF LAKE WORTH UTILITIES	Palm Beach	592.8	2943.7	30.6	-9.0	31.9	106	10,627.4	598	YES
0990042	FLORIDA POWER & LIGHT (PRV)	Palm Beach	593.3	2960.6	31.1	8.0	32.1	76	73,474.5	601	YES
0990332	NEW HOPE POWER PARTNERSHIP	Palm Beach	524.9	2939.4	-37.3	-13.2	39.6	250	3,105.0	751	YES
0850102	INDIANTOWN COGENERATION, L.P.	Martin	547.7	2990.7	-14.6	38.0	40.7	339	2,554.3	775	YES
0850001	FLORIDA POWER & LIGHT (PMR)	Martin	542.7	2992.7	-19.5	40.0	44.5	334	65,800.7	850	YES
0990344	PARKWAY ASPHALT, INC.	Palm Beach	587.4	2962.1	25.2	9.5	26.9	69	43.3	498	NO
0990123	FLORIDA POWER & LIGHT (PDC/OSF)	Palm Beach	589.7	2961.2	27.5	8.5	28.8	73	90.0	536	NO
0990630	SOUTH FLORIDA MATERIALS CORP.	Palm Beach	593.2	2960.8	31.0	8.2	32.0	75	44.4	601	NO
0990325	ROYAL PALM MEMORIAL GARDENS, INC.	Palm Beach	593.4	2960.2	31.2	7.5	32.1	76	1.8	602	NO
0990305	NORTHWOOD FUNERAL HOME	Palm Beach	593.8	2960.1	31.6	7.4	32.5	77	2.6	609	NO
								Sum =	*138.7*	*536* [e]	*NO*
0990333	FLORIDA GAS TRANSMISSION COMPANY	Palm Beach	584.4	2957.1	22.2	4.4	22.6	79	17.2	412	NO
0990087	RANGER CONSTRUCTION INDUSTRIES, INC.	Palm Beach	579.9	2951.7	17.7	-1.0	17.7	93	37.8	314	NO
0990310	COMMUNITY ASPHALT CORP	Palm Beach	582.3	2950.8	20.1	-1.9	20.2	95	136.6	364	NO
								Sum =	*174.4*	*314* [e]	*NO*
0990620	SFWMD Pump Station S-319	Palm Beach	566.3	2951.2	4.1	-1.4	4.3	109	4.9	47	NO
0990322	TREASURE COAST CREMATORY	Palm Beach	594.0	2941.0	31.8	-11.7	33.9	110	5.3	637	NO
0990095	BETHESDA MEMORIAL HOSPITAL	Palm Beach	592.6	2931.8	30.4	-20.9	36.9	124	8.5	697	NO
0990119	BOCA RATON COMMUNITY HOSPITAL	Palm Beach	589.5	2915.5	27.3	-37.2	46.1	144	4.0	882	NO
0990621	SOUTH FLORIDA WATER MANANGEMENT DISTRICT	Palm Beach	567.2	2945.0	5.0	-7.7	9.2	147	5.0	143	NO
0110045	HARDRIVES ASPHALT COMPANY	Broward	583.8	2909.1	21.6	-43.5	48.6	154	87.6	932	NO
0112120	WHEELABRATOR NORTH BROWARD, INC.	Broward	583.9	2907.6	21.7	-45.1	50.0	154	430.5	960	NO
0112048	BROWARD CO. ANIMAL CARE AND REGULATION	Broward	584.0	2905.5	21.8	-47.1	51.9	155	2.6	999	NO
								Sum =	*520.7*	*932* [e]	*NO*
0990350	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	556.2	2927.8	-6.0	-24.8	25.6	194	4.2	471	NO
0990354	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	545.8	2912.8	-16.4	-39.9	43.1	202	3.8	823	NO
0990614	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	540.5	2919.5	-21.7	-33.2	39.7	213	5.0	753	NO
0990549	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	554.2	2940.5	-8.0	-12.2	14.6	213	4.2	252	NO
0990615	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	519.1	2923.8	-43.1	-28.9	51.9	236	5.0	998	NO

TABLE D-1

SUMMARY OF THE SO_2 FACILITIES CONSIDERED FOR INCLUSION IN THE AAQS AND PSD CLASS II AIR MODELING ANALYSES BASED ON SOURCE GROUP BY DISTANCE AND DIRECTION

AIRS Number	Facility	County	UTM Coordinates East (km)	UTM Coordinates North (km)	Relative to WCEC[a] X (km)	Relative to WCEC[a] Y (km)	Distance (km)	Direction (deg)	Maximum SO_2 Emissions (TPY)	Q, (TPY) Emission Threshold[b,c] (Dist - SID) x 20	Include in Modeling Analysis ?
0990005	OKEELANTA CORP	Palm Beach	524.7	2939.5	-37.5	-13.2	39.7	251	37.0	755	NO
Beyond Screening Area out to 100 km[d]											
0112357	BROWARD COUNTY WATER & SEWER SERVICES	Broward	583.5	2905.0	21.3	-47.6	52.2	156	5.9	1,004	NO
0110038	OLDCASTLE RETAIL, INC.	Broward	586.2	2904.6	24.0	-48.1	53.7	153	95.0	1,034	NO
0510003	U.S. SUGAR CORP. CLEWISTON MILL	Hendry	506.1	2956.9	-56.1	4.2	56.3	274	1,571.3	1,085	YES
0110351	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Broward	522.3	2912.3	-39.9	-40.4	56.8	225	20.6	1,096	NO
0111019	HOLY CROSS HOSPITAL	Broward	587.1	2896.5	24.9	-56.1	61.4	156	22.8	1,188	NO
0112410	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Broward	555.1	2882.4	-7.1	-70.2	70.6	186	49.0	1,371	NO
0112119	WHEELABRATOR SOUTH BROWARD, INC	Broward	578.9	2883.4	16.7	-69.3	71.2	166	462.0	1,385	NO
0110037	FLORIDA POWER & LIGHT (PFL)	Broward	579.4	2883.4	17.2	-69.3	71.4	166	3,297.6	1,388	YES
0110036	FLORIDA POWER & LIGHT (PPE)	Broward	587.4	2885.3	25.2	-67.4	71.9	159	151,768.0	1,398	YES
7775212	WEEKLEY ASPHALT PAVING, INC.		557.3	2880.6	-4.9	-72.1	72.2	184	59.6	1,404	NO
0430008	ATLAS-TRANSOIL INC	Glades	489.2	2966.6	-73.0	13.9	74.3	281	46.7	1,446	NO
0930109	BP TECHNOLOGY INC	Okeechobee	525.2	3017.4	-37.0	64.7	74.6	330	15.8	1,452	NO
0510015	SOUTHERN GARDENS CITRUS PROCESSING CORP.	Hendry	487.5	2957.6	-74.7	4.9	74.9	274	491.3	1,457	NO
1110004	TROPICANA MANFACTURING COMPANY, INC	Broward	559.6	3028.3	-2.6	75.7	75.7	358	106.2	1,474	NO
1110121	FLORIDA MUNICIPAL POWER AGENCY	Broward	561.5	3029.0	-0.7	76.3	76.3	359	169.5	1,487	NO
0930001	OKEECHOBEE ASPHALT & READY-MIX CONCRETE,	Okeechobee	516.1	3014.2	-46.1	61.6	76.9	323	104.7	1,498	NO
1110040	RANGER CONSTRUCTION INDUSTRIES, INC.	Broward	561.7	3030.2	-0.5	77.5	77.5	360	222.4	1,510	NO
1110010	DICKERSON FLORIDA, INC	Broward	562.2	3030.4	0.0	77.7	77.7	0	83.4	1,514	NO
0250252	COMMUNITY ASPHALT CORPORATION	Dade	557.0	2869.3	-5.2	-83.4	83.5	184	70.6	1,630	NO
1110003	FT PIERCE UTILITIES AUTHORITY	Broward	566.1	3036.4	3.9	83.7	83.8	3	3,125.9	1,636	YES
1110107	TREASURE COAST LAND CLEARING	Broward	545.7	3035.2	-16.5	82.5	84.2	349	15.0	1,644	NO
0250624	GENERAL ASPHALT CO., INC.	Dade	569.7	2868.3	7.5	-84.3	84.7	175	124.4	1,653	NO
0250615	WASTE MANAGEMENT INC. OF FLORIDA	Dade	565.0	2860.0	2.8	-92.6	92.7	178	249.0	1,814	NO
0250022	U S FOUNDRY MANUFACTURING CORP.	Dade	567.3	2859.8	5.1	-92.9	93.0	177	20.0	1,820	NO
0250348	MIAMI DADE RRF	Dade	563.8	2857.6	1.6	-95.0	95.0	179	856.8	1,861	NO
0210031	BREITBURN FLORIDA, LLC	Collier	509.6	2873.2	-52.6	-79.5	95.3	214	32.0	1,866	NO
0250753	MIAMI DADE WATER AND SEWER DEPT	Dade	557.8	2856.6	-4.4	-96.1	96.2	183	92.0	1,884	NO
0250281	MIAMI-DADE WATER AND SEWER DEPARTMENT	Dade	570.7	2856.8	8.5	-95.9	96.3	175	117.1	1,885	NO
0610021	OCEAN SPRAY CRANBERRIES	Indian River	550.6	3051.3	-11.6	98.6	99.3	353	28.3	1,946	NO
0250014	RINKER MATERIALS CORPORATION.	Dade	557.5	2852.1	-4.7	-100.6	100.7	183	1,340.0	1,974	YES
0610029	CITY OF VERO BEACH	Indian River	561.4	3056.5	-0.8	103.8	103.8	360	10,274.2	2,037	YES

Note: NA = Not applicable, ND = No data, SID = Significant impact distance for the project

[a] West County Unit 3 East and North Coordinates (km) are: 562.202 2952.65

[b] The significant impact distance for the project is estimated to be: 2 km

[c] Based on the North Carolina Screening Threshold method, a background facility is included in the modeling analysis if the facility is beyond the modeling area and its emission rate is greater than the product of (Distance-SID) x 20.

[d] "Modeling Area" is the area in which the project is predicted to have a significant impact. EPA recommends that all sources within this area be modeled.
"Screening Area" is the significant distance of 2 km plus 50 km beyond the modeling area. EPA recommends that sources be modeled that are expected to have a significant impact in the modeling area. "Beyond Screening Area out to 100 km" is the area beyond the screening area and out to 100 km in which large sources are included in the modeling.

[e] Minimum Q for source group. Facilities within a source group are located within 5 km and 3 degrees of one another.

TABLE D-2

SUMMARY OF SO_2 SOURCES INCLUDED IN THE AAQS MODELING ANALYSES

Facility ID	Facility Name / Emission Unit Description	EU ID	AERMOD ID Name	UTM Location X (m)	UTM Location Y (m)	Stack Height (ft)	Stack Height (m)	Stack Diameter (ft)	Stack Diameter (m)	Stack Temperature (°F)	Stack Temperature (K)	Stack Velocity (ft/s)	Stack Velocity (m/s)	SO_2 Emission Rate 24-Hour (lb/hr)	SO_2 Emission Rate 24-Hour (g/sec)
0990646	FPL West County Energy Center (WCEC)														
	CT 1A - NG w DB Firing 100%L/95°F		FPLWC1A	562,217	2,953,556	149	45.42	22.0	6.71	184.0	357.6	54.7	16.67	15.60	1.97
	CT 1B - NG w DB Firing 100%L/95°F		FPLWC1B	562,216	2,953,462	149	45.42	22.0	6.71	184.0	357.6	54.7	16.67	15.60	1.97
	CT 1C - NG w DB Firing 100%L/95°F		FPLWC1C	562,215	2,953,417	149	45.42	22.0	6.71	184.0	357.6	54.7	16.67	15.60	1.97
	CT 2A - NG w DB Firing 100%L/95°F		FPLWC2A	562,210	2,953,150	149	45.42	22.0	6.71	184.0	357.6	54.7	16.67	15.60	1.97
	CT 2B - NG w DB Firing 100%L/95°F		FPLWC2B	562,209	2,953,056	149	45.42	22.0	6.71	184.0	357.6	54.7	16.67	15.60	1.97
	CT 2C - NG w DB Firing 100%L/95°F		FPLWC2C	562,208	2,953,011	149	45.42	22.0	6.71	184.0	357.6	54.7	16.67	15.60	1.97
	Natural Gas Heater 1		FULHEAT1	562,196	2,953,700	30	9.14	1.0	0.30	500.0	533.2	53.0	16.15	0.054	0.0068
	Natural Gas Heater 2		FULHEAT2	562,196	2,953,317	30	9.14	1.0	0.30	500.0	533.2	53.0	16.15	0.054	0.0068
0990530	Hubbard Construction Company														
	Hot mix asphalt plant (175 TPH)	2	HUBB2	562,627	2,951,930	30.0	9.14	3.8	1.16	250.0	394.3	100.2	30.54	23.20	2.92
	Asphalt Cement Heater	3	HUBB3	562,627	2,951,930	30.0	9.14	3.8	1.16	250.0	394.3	100.2	30.54	1.27	0.16
	Units 2-3		HUBB23	562,627	2,951,930	30.0	9.14	3.8	1.16	250.0	394.3	100.2	30.54	24.47	3.08
0990349	SFWMD - Pump Station S-5A [d]														
	Six -1600 hp diesel engines powering flood control pumps	1	PS_S5A	562,860	2,951,370	16.0	4.88	3.3	0.99	775.0	685.9	17.4	5.30	3.38	0.43
0990016	Atlantic Sugar [a,e]														
	Unit 1	--	ATLSUG1	552,900	2,945,200	90.0	27.4	6.0	1.83	163.1	346.0	58.9	17.97	67.00	8.44
	Unit 2	--	ATLSUG2	552,900	2,945,200	90.0	27.4	6.0	1.83	170.3	350.0	76.6	23.36	67.00	8.44
	Unit 3	--	ATLSUG3	552,900	2,945,200	90.0	27.4	6.0	1.83	170.3	350.0	70.7	21.56	65.80	8.29
	Unit 4	--	ATLSUG4	552,900	2,945,200	90.0	27.4	6.0	1.83	159.5	344.0	82.5	25.16	65.50	8.25
	Units 1-4		ATLSUG14	552,900	2,945,200	90.0	27.4	6.0	1.83	163.1	346.0	58.9	17.97	265.30	33.43
	Unit 5 PSD [b]	--	ATLSUG5	552,900	2,945,200	90.0	27.4	5.5	1.68	150.5	339.0	63.1	19.24	48.40	6.10
0990019	Osceola Farms [a]														
	Unit 2	--	OSBLR2	544,200	2,968,000	90.0	27.4	5.0	1.52	155.9	342.0	40.7	12.41	228.90	28.84
	Unit 3	--	OSBLR3	544,200	2,968,000	90.0	27.4	6.25	1.91	154.0	340.9	38.8	11.84	229.20	28.88
	Unit 4	--	OSBLR4	544,200	2,968,000	90.0	27.4	6.0	1.83	153.6	340.7	59.5	18.14	228.90	28.84
	Unit 5a	--	OSBLR5A	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	56.9	17.33	115.90	14.60
	Unit 5b	--	OSBLR5B	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	46.7	14.23	115.90	14.60
	Unit 6	--	OSBLR6	544,200	2,968,000	90.0	27.4	6.17	1.88	151.0	339.3	53.0	16.14	250.10	31.51
	Units 2-6		OSBLR5B	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	46.7	14.23	1168.90	147.28
0990234	Solid Waste Authority of PBC														
	Units 1 and 2		PBCRRF	584,490	2,961,260	250	76.2	6.7	2.04	449.7	505.2	81.7	24.90	91.64	11.55
0990021	United Technologies Corporation														
	Air compressor/heater (ACHR-2-B2)	1	PRATARCH	568,410	2,975,840	50	15.2	3.0	0.91	1000.0	810.9	471.4	143.73	111.00	13.99
	Boiler BO-12, -1, -2, -14, -3	16	PRATBO12	568,410	2,975,840	15	4.6	2.5	0.76	500.0	533.2	22.7	6.92	2.13	0.27
0990026	Sugar Cane Growers Co-Op [a,c]														
	On-crop season														
	Boiler No. 1	001	SCBLR1N	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	49.6	15.12	599.10	75.49
	Boiler No. 2	002	SCBLR2N	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	51.1	15.58	598.90	75.46
	Boiler No. 3	003	SCBLR3N	534,900	2,953,300	180.0	54.86	5.3	1.62	156.0	342.0	40.3	12.28	0.00	0.00
	Boiler No. 4	004	SCBLR4N	534,900	2,953,300	180.0	54.86	8.9	2.72	162.0	345.4	54.1	16.49	0.00	0.00

TABLE D-2
SUMMARY OF SO_2 SOURCES INCLUDED IN THE AAQS MODELING ANALYSES

Facility ID	Facility Name / Emission Unit Description	EU ID	AERMOD ID Name	UTM Location X (m)	UTM Location Y (m)	Stack Parameters: Height (ft)	Height (m)	Diameter (ft)	Diameter (m)	Temperature (°F)	Temperature (K)	Velocity (ft/s)	Velocity (m/s)	SO_2 Emission Rate 24-Hour (lb/hr)	24-Hour (g/sec)
	Boiler No. 5	005	SCBLR5N	534,900	2,953,300	150.0	45.72	7.0	2.13	160.0	344.3	77.1	23.50	0.00	0.00
	Boiler No. 8	008	SCBLR8N	534,900	2,953,300	155.0	47.24	9.5	2.90	154.0	340.9	37.6	11.46	0.00	0.00
	Off-crop season														
	Boiler No. 1	001	SCBLR1F	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	49.6	15.12	599.10	75.49
	Boiler No. 4	004	SCBLR4F	534,900	2,953,300	180.0	54.86	8.9	2.72	162.0	345.4	54.1	16.49	567.57	71.51
0990061	U.S. Sugar Corp. Bryant Mill [a,c]														
	Boiler No. 1	001	USSBRY1	537,830	2,969,120	65.0	19.81	5.4	1.65	160.0	344.3	113.5	34.60	151.30	19.06
	Boiler No. 2	002	USSBRY2	537,830	2,969,120	65.0	19.81	5.4	1.65	160.0	344.3	113.5	34.60	151.30	19.06
	Boiler No. 3	003	USSBRY3	537,830	2,969,120	65.0	19.81	5.4	1.65	160.0	344.3	113.5	34.60	151.30	19.06
	Boilers 1-3		USBRY123	537,830	2,969,120	65.0	19.81	5.4	1.65	160.0	344.3	113.5	34.60	453.90	57.19
	Boiler No. 5	005	USSBRY5	537,830	2,969,120	150.0	45.72	9.0	2.74	142.0	334.3	54.0	16.45	186.50	23.50
	Diesel Electric Generator General Motors 16-567-B	007	USSBRY7	537,830	2,969,120	28.0	8.53	1.2	0.37	475.0	519.3	40.0	12.19	5.80	0.73
	Diesel Electric Generator General Motors 16-567-C	008	USSBRY8	537,830	2,969,120	28.0	8.53	1.2	0.37	475.0	519.3	42.0	12.80	6.20	0.78
	Diesel Generators 1-2		USSBRY78	537,830	2,969,120	28.0	8.53	1.2	0.37	475.0	519.3	40.0	12.19	12.00	1.51
0990045	City of Lake Worth Utilities														
	Diesel Generator Units 1-5	1-5	LAKWTHDG	592,800	2,943,700	17.0	5.2	1.8	0.6	667.0	625.9	121.7	37.09	38.0	4.8
	Gas Turbine No.1	6	LAKWTHHR	592,800	2,943,700	46.0	14.0	16.0	4.9	837.0	720.4	81.5	24.84	157.0	19.8
	Unit 3, S-3	9	LAKWTHU3	592,800	2,943,700	113.0	34.4	7.0	2.1	293.0	418.2	51.4	15.70	784.0	98.8
	Unit 4, S-4	10	LAKWTHU4	592,800	2,943,700	115.0	35.1	7.5	2.3	293.0	418.2	55.8	17.00	1072.0	135.1
	Combined Cycle Unit, S-5	11	LAKWTHU5	592,800	2,943,700	75.0	22.9	10.0	3.0	404.0	479.8	87.5	27.80	109.0	13.7
0990042	FPL -Riviera Beach														
	Units 3&4 at 2.5%s fuel oil		RIVU34	593,270	2,960,620	298	90.8	16.0	4.88	263.0	401.5	88.1	26.9	16775.0	2113.65
0990332	New Hope Power Partnership (Okeelanta)														
	Okeelanta Power Blrs 1,2,3 [b]		OKCOGENF	524,920	2,939,440	199.0	60.7	10.0	3.05	352.0	450.9	67.7	20.63	456.00	57.46
0990005	Okeelanta														
	Boiler 16 PSD [a]	--	OKBLR16	524,700	2,939,500	75.0	22.9	5.0	1.52	393.0	473.7	100.7	30.69	12.10	1.52
0850102	Indiantown Cogeneration LP - Indiantown Plant														
	Pulverized Coal Main Boiler	1	INDTOWN1	547,650	2,990,700	495.0	150.9	16.0	4.88	140.0	333.2	93.2	28.4	582.00	73.33
0850001	FPL - Martin Power Plant														
	Units 1&2	1-2	MART12	542,680	2,992,650	499.0	152.1	26.2	8.0	338.0	443.2	68.7	20.94	13840.00	1743.84
	Units 3&4	3-6	MART34	542,680	2,992,650	213.0	64.9	20.0	6.1	280.0	410.9	62.0	18.90	3680.00	463.68
	Aux Boiler	7	MARTAUX	542,680	2,992,650	60.0	18.3	3.6	1.1	504.1	535.4	50.0	15.24	102.38	12.90
	Diesel Genarator	9	MARTGEN	542,680	2,992,650	25.0	7.6	1.0	0.3	955.0	785.9	130.0	39.62	4.05	0.51
	Unit 8 (EUs 11, 12, 17, &18)	--	MART8OIL	542,680	2,992,650	120.0	36.6	19.0	5.8	296.3	420.0	73.5	22.40	412.40	51.96
0510003	U.S. Sugar Clewiston Mill and Refinery														
	On-crop season [a]														
	Boiler No. 1	001	USSBLR1N	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	29.80	3.75
	Boiler No. 2	002	USSBLR2N	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	26.80	3.38
	Boiler No. 4	009	USSBLR4N	506,100	2,956,900	150.0	45.72	8.2	2.50	160.0	344.3	88.7	27.04	36.00	4.54
	Boiler No. 7	014	USSBLR7N	506,100	2,956,900	225.0	68.58	8.0	2.44	335.0	441.5	94.5	28.80	125.50	15.81

TABLE D-2
SUMMARY OF SO_2 SOURCES INCLUDED IN THE AAQS MODELING ANALYSES

Facility ID	Facility Name / Emission Unit Description	EU ID	AERMOD ID Name	UTM Location X (m)	UTM Location Y (m)	Stack Height ft	Stack Height m	Diameter ft	Diameter m	Temperature °F	Temperature K	Velocity ft/s	Velocity m/s	SO_2 Emission Rate 24-Hour (lb/hr)	SO_2 Emission Rate 24-Hour (g/sec)
	Boiler No. 8	028	USSBLR8N	506.100	2,956.900	199.0	60.66	10.9	3.32	315.0	430.4	75.7	23.07	64.60	8.14
	<u>Off-crop season</u> [a]														
	Boiler No. 7	014	USSBLR7F	506.100	2,956.900	225.0	68.58	8.0	2.44	335.0	441.5	94.5	28.80	125.50	15.81
	Boiler No. 8	028	USSBLR8F	506.100	2,956.900	199.0	60.66	10.9	3.32	315.0	430.4	75.7	23.07	64.60	8.14
	<u>Sugar Refinery Sources</u>														
	Granular Carbon Furnace S-12	017	S12	506.100	2.956.900	30.0	9.14	2.00	0.61	160.0	344.3	22.8	6.95	0.64	0.081
0110037	Florida Power & Light (PFL) - Fort Lauderdale														
	CTs 1-4 PSD		LAUDU45	579.390	2,883.360	150	45.7	18.0	5.5	330.0	438.7	158.7	48.37	2152.00	271.15
	GT 1-12 (0.5% fuel oil)		LDGT1_12	579.390	2,883.360	45	13.7	15.6	4.8	860.0	733.2	93.3	28.44	770.80	97.12
	GT 13-24 (0.5% fuel oil)		LDGT1324	579.390	2,883.360	45	13.7	15.6	4.8	860.0	733.2	93.3	28.44	770.80	97.12
0110036	FPL - Port Everglades Plant														
	Units 1&2 at 2.5%s fuel oil		PTEVU12	587.400	2,885.300	342.8	104.5	14.0	4.27	289.0	415.9	87.7	26.72	12650.0	1593.9
	Units 3&4 at 2.5%s fuel oil		PTEVU34	587.400	2.885.300	342.8	104.5	18.1	5.52	287.0	414.8	78.3	23.88	22000.0	2772.0
	GT 1-12 (0.5% fuel oil)		PTEVGTS	587.400	2,885,300	44.0	13.4	15.6	4.75	860.1	733.2	93.3	28.43	395.9	49.9
1110003	Ft. Pierce Utilities Authority														
	16.5 MW Boiler Unit #6	6	FPUA6	566,120	3,036,350	148.0	45.1	5.0	1.5	325	435.9	36.0	10.97	175.1	22.1
	37.5 MW Boiler Unit #7	7	FPUA7	566,120	3,036,350	147.0	44.8	7.1	2.2	308	426.5	61.1	18.62	376.0	47.4
	56.1 MW Boiler Unit #8	8	FPUA8	566,120	3.036.350	150.0	45.7	8.0	2.4	334	440.9	83.6	25.48	515.2	64.9
	23.4 MW CCGT with 8.2 MW HRSG Unit # 9	9	FPUA9	566,120	3,036,350	68.0	20.7	11.2	3.4	426	492.0	59.8	18.23	319.0	40.2
0250014	Rinker Materials Corporation														
	Stone Dryer & Soil Thermal Treatment Facility	14	RMC14	557,490	2,852,050	80.0	24.4	4.5	1.4	800	699.8	38.0	11.58	30.1	3.8
	Kiln System (raw mill, kiln PH/PC and clinker cooler)	18	RMC18	557,490	2,852.050	359.0	109.4	8.0	2.4	464	513.2	160.9	49.04	306.0	38.6
0610029	City of Vero Beach Municipal Utilities														
	Unit 1	1	VERBU1	561,400	3,056,500	200.0	61.0	3.5	1.1	289	415.9	105.5	32.16	230.2	29.0
	Unit 2	2	VERBU2	561,400	3,056,500	200.0	61.0	3.5	1.1	347	448.2	137.2	41.82	399.5	50.3
	Unit 3	3	VERBU3	561.400	3,056,500	200.0	61.0	7.3	2.2	342	445.4	46.3	14.11	1,127.5	142.1
	Unit 4	4	VERBU4	561,400	3.056.500	200.0	61.0	7.0	2.1	283	412.6	77.7	23.68	548.0	69.0
	Unit 5 Simple Cycle CT	5	VERBU5	561.400	3.056.500	125.0	38.1	11.0	3.4	410	483.2	82.1	25.02	124.3	15.7

[a] Facilities or sources within facilities that operate only during the October 1 through April 31 crop season. For sources identified operating during off-crop season, the season is May through September.

[b] Sugar mill sources that operate all year.

[c] Facility-wide SO_2 emission limit of 14 tons/day (1,166,7) lb/hr). Only Boilers 1 and 4 operate during off-crop season.

[d] Emission rate calculated based on heat input limit of 155,880 MMBtu/yr, which is assumed to be equivalent to 97 days of continuous operation and diesel sulfur content of 0.05%, AP-42 Table 3.4-1.

[e] Facility is shutdown with the permit still in existence. Modeled only in AAQS analysis.

[f] Facility is shutdown and the operating permit is withdrawn. Not modeled in AAQS analysis. Only baseline emissions units modeled in the increment analysis.

TABLE D-3
SUMMARY OF SO_2 SOURCES INCLUDED IN THE PSD CLASS II MODELING ANALYSES

Facility ID	Facility Name / Emission Unit Description	EU ID	AERMOD ID Name	UTM Location X (m)	UTM Location Y (m)	Height ft	Height m	Diameter ft	Diameter m	Temperature °F	Temperature K	Velocity ft/s	Velocity m/s	SO_2 Emission Rate 24-Hour (lb/hr)	SO_2 Emission Rate 24-Hour (g/sec)	Type of PSD Source [a] (EXP/CON)	Modeled In Class II
0990646	FPL West County Energy Center (WCEC)																
	CT 1A - NG w DB Firing 100%L/95°F		FPLWC1A	562,217	2,953,556	149	45.42	22.0	6.71	184.0	357.6	54.7	16.67	15.60	1.97	CON	Yes
	CT 1B - NG w DB Firing 100%L/95°F		FPLWC1B	562,216	2,953,462	149	45.42	22.0	6.71	184.0	357.6	54.7	16.67	15.60	1.97	CON	Yes
	CT 1C - NG w DB Firing 100%L/95°F		FPLWC1C	562,215	2,953,417	149	45.42	22.0	6.71	184.0	357.6	54.7	16.67	15.60	1.97	CON	Yes
	CT 2A - NG w DB Firing 100%L/95°F		FPLWC2A	562,210	2,953,150	149	45.42	22.0	6.71	184.0	357.6	54.7	16.67	15.60	1.97	CON	Yes
	CT 2B - NG w DB Firing 100%L/95°F		FPLWC2B	562,209	2,953,056	149	45.42	22.0	6.71	184.0	357.6	54.7	16.67	15.60	1.97	CON	Yes
	CT 2C - NG w DB Firing 100%L/95°F		FPLWC2C	562,208	2,953,011	149	45.42	22.0	6.71	184.0	357.6	54.7	16.67	15.60	1.97	CON	Yes
	Natural Gas Heater 1		FULHEAT1	562,196	2,953,700	30	9.14	1.0	0.30	500.0	533.2	53.0	16.15	0.054	0.0068	CON	Yes
	Natural Gas Heater 2		FULHEAT2	562,196	2,953,317	30	9.14	1.0	0.30	500.0	533.2	53.0	16.15	0.054	0.0068	CON	Yes
0990530	Hubbard Construction Company																
	Hot mix asphalt plant (175 TPH)	2	HUBB2	562,627	2,951,930	30.0	9.14	3.8	1.16	250.0	394.3	100.2	30.54	23.20	2.92	CON	Yes
	Asphalt Cement Heater	3	HUBB3	562,627	2,951,930	30.0	9.14	3.8	1.16	250.0	394.3	100.2	30.54	1.27	0.16	CON	Yes
	Units 2-3		HUBB23	562,627	2,951,930	30.0	9.14	3.8	1.16	250.0	394.3	100.2	30.54	24.47	3.08	CON	Yes
0990349	SFWMD - Pump Station S-5A [d]																
	Six -1600 hp diesel engines powering flood control pumps	1	PS_S5A	562,860	2,951,370	16.0	4.88	3.3	0.99	775.0	685.9	17.4	5.30	0.90	0.11	CON	Yes
0990016	Atlantic Sugar [a,c]																
	Unit 1	--	ATLSUG1	552,900	2,945,200	90.0	27.4	6.0	1.83	163.1	346.0	58.9	17.97	67.00	8.44	CON	No
	Unit 2	--	ATLSUG2	552,900	2,945,200	90.0	27.4	6.0	1.83	170.3	350.0	76.6	23.36	67.00	8.44	CON	No
	Unit 3	--	ATLSUG3	552,900	2,945,200	90.0	27.4	6.0	1.83	170.3	350.0	70.7	21.56	65.80	8.29	CON	No
	Unit 4	--	ATLSUG4	552,900	2,945,200	90.0	27.4	6.0	1.83	159.5	344.0	82.5	25.16	65.50	8.25	CON	No
	Units 1-4		ATLSUG14	552,900	2,945,200	90.0	27.4	6.0	1.83	163.1	346.0	58.9	17.97	265.30	33.43	CON	No
	Unit 5 PSD [b]	--	ATLSUG5	552,900	2,945,200	90.0	27.4	5.5	1.68	150.5	339.0	63.1	19.24	48.40	6.10	CON	No
	Baseline																
	Unit 1 PSD Baseline	--	ATLSUG1B	552,900	2,945,200	62.0	18.9	6.3	1.92	451.1	506.0	41.7	12.70	-136.8	-17.24	EXP	Yes
	Unit 2 PSD Baseline	--	ATLSUG2B	552,900	2,945,200	62.0	18.9	6.3	1.92	460.1	511.0	35.8	10.90	-178.6	-22.50	EXP	Yes
	Unit 3 PSD Baseline	--	ATLSUG3B	552,900	2,945,200	71.8	21.9	6.0	1.83	479.9	522.0	57.4	17.50	-134.0	-16.88	EXP	Yes
	Unit 4 PSD Baseline	--	ATLSUG4B	552,900	2,945,200	60.0	18.3	6.0	1.83	159.5	344.0	49.2	15.00	-134.0	-16.88	EXP	Yes
0990019	Osceola Farms [a]																
	Unit 2	--	OSBLR2	544,200	2,968,000	90.0	27.4	5.0	1.52	155.9	342.0	40.7	12.41	228.90	28.84	CON	Yes
	Unit 3	--	OSBLR3	544,200	2,968,000	90.0	27.4	6.25	1.91	154.0	340.9	38.8	11.84	229.20	28.88	CON	Yes
	Unit 4	--	OSBLR4	544,200	2,968,000	90.0	27.4	6.0	1.83	153.6	340.7	59.5	18.14	228.90	28.84	CON	Yes
	Unit 5a	--	OSBLR5A	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	56.9	17.33	115.90	14.60	CON	Yes
	Unit 5b	--	OSBLR5B	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	46.7	14.23	115.90	14.60	CON	Yes
	Unit 6	--	OSBLR6	544,200	2,968,000	90.0	27.4	6.17	1.88	151.0	339.3	53.0	16.14	250.10	31.51	CON	Yes
	Units 2-6		OSBLR5B	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	46.7	14.23	1168.90	147.28	CON	Yes
	Baseline																
	Unit 1 PSD Baseline	--	OSBLR1B	544,200	2,968,000	72.2	22.0	5.0	1.52	155.9	342.0	29.5	8.98	-40.24	-5.07	EXP	Yes
	Unit 2 PSD Baseline	--	OSBLR2B	544,200	2,968,000	72.2	22.0	5.0	1.52	155.9	342.0	46.6	14.22	-129.52	-16.32	EXP	Yes
	Unit 3 PSD Baseline	--	OSBLR3B	544,200	2,968,000	72.2	22.0	6.5	1.98	155.9	342.0	36.8	11.23	-57.62	-7.26	EXP	Yes
	Unit 4 PSD Baseline	--	OSBLR4B	544,200	2,968,000	72.2	22.0	6.0	1.83	155.9	342.0	43.8	13.35	-108.02	-13.61	EXP	Yes
0990234	Solid Waste Authority of PBC																
	Units 1 and 2		PBCRRF	584,490	2,961,260	250	76.2	6.7	2.04	449.7	505.2	81.7	24.90	91.64	11.55	CON	Yes
0990021	United Technologies Corporation																
	Air compressor/heater (ACHR-2-B2)	1	PRATARCH	568,410	2,975,840	50	15.2	3.0	0.91	1000.0	810.9	471.4	143.73	111.00	13.99	CON	Yes
	Boiler BO-12, -1, -2, -14, -3	16	PRATBO12	568,410	2,975,840	15	4.6	2.5	0.76	500.0	533.2	22.7	6.92	2.13	0.27	CON	Yes

TABLE D-3

SUMMARY OF SO_2 SOURCES INCLUDED IN THE PSD CLASS II MODELING ANALYSES

Facility ID	Facility Name / Emission Unit Description	EU ID	AERMOD ID Name	UTM Location X (m)	UTM Location Y (m)	Stack Parameters: Height ft	Height m	Diameter ft	Diameter m	Temperature °F	Temperature K	Velocity ft/s	Velocity m/s	SO_2 Emission Rate 24-Hour (lb/hr)	24-Hour (g/sec)	Type of PSD Source[h] (EXP/CON)	Modeled In Class II
0990026	Sugar Cane Growers Co-Op[a,f]																
	On-crop season																
	Boiler No. 1	001	SCBLR1N	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	49.6	15.12	599.10	75.49	CON	Yes
	Boiler No. 2	002	SCBLR2N	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	51.1	15.58	598.90	75.46	CON	Yes
	Boiler No. 3	003	SCBLR3N	534,900	2,953,300	180.0	54.86	5.3	1.62	156.0	342.0	40.3	12.28	0.00	0.00	CON	Yes
	Boiler No. 4	004	SCBLR4N	534,900	2,953,300	180.0	54.86	8.9	2.72	162.0	345.4	54.1	16.49	0.00	0.00	CON	Yes
	Boiler No. 5	005	SCBLR5N	534,900	2,953,300	150.0	45.72	7.0	2.13	160.0	344.3	77.1	23.50	0.00	0.00	CON	Yes
	Boiler No. 8	008	SCBLR8N	534,900	2,953,300	155.0	47.24	9.5	2.90	154.0	340.9	37.6	11.46	0.00	0.00	CON	Yes
	Off-crop season																
	Boiler No. 1	001	SCBLR1F	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	49.6	15.12	599.10	75.49	CON	Yes
	Boiler No. 4	004	SCBLR4F	534,900	2,953,300	180.0	54.86	8.9	2.72	162.0	345.4	54.1	16.49	567.57	71.51	CON	Yes
	Baseline																
	BOILER #1 PSD Baseline On-crop season	--	SCBLR1BN	534,900	2,953,300	79.1	24.10	5.5	1.68	395.0	474.8	52.3	15.94	-236.20	-29.76	EXP	Yes
	BOILER #2 PSD Baseline On-crop season	--	SCBLR2BN	534,900	2,953,300	79.1	24.10	5.5	1.68	405.1	480.4	58.6	17.88	-236.20	-29.76	EXP	Yes
	BOILER #3 PSD Baseline On-crop season	--	SCBLR3BN	534,900	2,953,300	79.1	24.10	5.5	1.68	470.0	516.5	54.1	16.50	-177.60	-22.38	EXP	Yes
	Boilers 1-3 PSD Baseline On-Crop		BLR123BN	534,900	2,953,300	79.1	24.10	5.5	1.68	395.0	474.8	52.3	15.94	-650.00	-81.90	EXP	Yes
	BOILER #4 PSD Baseline On-crop season	--	SCBLR4BN	534,900	2,953,300	86.0	26.20	5.3	1.62	149.1	338.2	32.4	9.88	-205.60	-25.91	EXP	Yes
	BOILER #5 PSD Baseline On-crop season	--	SCBLR5BN	534,900	2,953,300	79.1	24.10	6.7	2.03	490.0	527.6	93.2	28.42	-315.00	-39.69	EXP	Yes
	BOILER #6 PSD Baseline On-crop season	--	SCBLR6BN	534,900	2,953,300	40.0	12.20	5.0	1.52	630.1	605.4	21.4	6.53	-147.70	-18.61	EXP	Yes
	BOILER #7 PSD Baseline On-crop season	--	SCBLR7BN	534,900	2,953,300	40.0	12.20	5.0	1.52	630.4	605.6	56.4	17.20	-353.80	-44.58	EXP	Yes
	BOILER #1 PSD Baseline Off-crop season	--	SCBLR1BF	534,900	2,953,300	79.1	24.10	5.5	1.68	395.0	474.8	52.3	15.94	-149.80	-18.87	EXP	Yes
	BOILER #2 PSD Baseline Off-crop season	--	SCBLR2BF	534,900	2,953,300	79.1	24.10	5.5	1.68	405.1	480.4	58.6	17.88	-149.80	-18.87	EXP	Yes
	BOILER #3 PSD Baseline Off-crop season	--	SCBLR3BF	534,900	2,953,300	79.1	24.10	5.5	1.68	470.0	516.5	54.1	16.50	-112.40	-14.16	EXP	Yes
	Boilers 1-3 PSD Baseline Off-Crop		BLR123BF	534,900	2,953,300	79.1	24.10	5.5	1.68	395.0	474.8	52.3	15.94	-412.00	-51.91	EXP	Yes
	BOILER #4 PSD Baseline Off-crop season	--	SCBLR4BF	534,900	2,953,300	86.0	26.20	5.3	1.62	149.1	338.2	32.4	9.88	-205.60	-25.91	EXP	Yes
	BOILER #5 PSD Baseline Off-crop season	--	SCBLR5BF	534,900	2,953,300	79.1	24.10	6.7	2.03	490.0	527.6	93.2	28.42	0.00	0.00	EXP	Yes
	BOILER #6 PSD Baseline Off-crop season	--	SCBLR6BF	534,900	2,953,300	40.0	12.20	5.0	1.52	630.1	605.4	21.4	6.53	0.00	0.00	EXP	Yes
	BOILER #7 PSD Baseline Off-crop season	--	SCBLR7BF	534,900	2,953,300	40.0	12.20	5.0	1.52	630.4	605.6	56.4	17.20	-121.80	-15.35	EXP	Yes
0990061	U.S. Sugar Corp. Bryant Mill[a,i]																
	Boiler No. 1	001	USSBRY1	537,830	2,969,120	65.0	19.81	5.4	1.65	160.0	344.3	113.5	34.60	151.30	19.06	CON	No
	Boiler No. 2	002	USSBRY2	537,830	2,969,120	65.0	19.81	5.4	1.65	160.0	344.3	113.5	34.60	151.30	19.06	CON	No
	Boiler No. 3	003	USSBRY3	537,830	2,969,120	65.0	19.81	5.4	1.65	160.0	344.3	113.5	34.60	151.30	19.06	CON	No
	Boilers 1-3		USBRY123	537,830	2,969,120	65.0	19.81	5.4	1.65	160.0	344.3	113.5	34.60	453.90	57.19	CON	No
	Boiler No. 5	005	USSBRY5	537,830	2,969,120	150.0	45.72	9.0	2.74	142.0	334.3	54.0	16.45	186.50	23.50	CON	No
	Diesel Electric Generator General Motors 16-567-B	007	USSBRY7	537,830	2,969,120	28.0	8.53	1.2	0.37	475.0	519.3	40.0	12.19	5.80	0.73	CON	No
	Diesel Electric Generator General Motors 16-567-C	008	USSBRY8	537,830	2,969,120	28.0	8.53	1.2	0.37	475.0	519.3	42.0	12.80	6.20	0.78	CON	No
	Diesel Generators 1-2		USSBRY78	537,830	2,969,120	28.0	8.53	1.2	0.37	475.0	519.3	40.0	12.19	12.00	1.51	CON	No
	Unit 1 PSD Baseline[g]		USSBRY1B	537,830	2,969,120	65.0	19.81	5.5	1.68	430.0	494.3	145.3	44.30	-25.07	-3.16	EXP	Yes
	Unit 2&3 PSD Baseline[g]		USBRY23B	537,830	2,969,120	65.0	19.81	5.5	1.68	160.0	344.3	124.3	37.90	-50.13	-6.32	EXP	Yes
0990045	City of Lake Worth Utilities																
	Diesel Generator Units 1-5	1-5	LAKWTHDG	592,800	2,943,700	17.0	5.2	1.8	0.6	667.0	625.9	121.7	37.09	38.0	4.8	CON	Yes
	Gas Turbine No.1	6	LAKWTHHR	592,800	2,943,700	46.0	14.0	16.0	4.9	837.0	720.4	81.5	24.84	157.0	19.8	CON	Yes
	Steam Generator Unit 1	7	LAKWTHU1	592,800	2,943,700	60.0	18.3	5.0	1.5	311.0	428.2	34.5	10.52	-267.0	-33.6	EXP	Yes
	Unit 3, S-3	9	LAKWTHU3	592,800	2,943,700	113.0	34.4	7.0	2.1	293.0	418.2	51.4	15.70	784.0	98.8	NO	No
	Unit 4, S-4	10	LAKWTHU4	592,800	2,943,700	115.0	35.1	7.5	2.3	293.0	418.2	55.8	17.00	1072.0	135.1	NO	No
	Combined Cycle Unit, S-5	11	LAKWTHU5	592,800	2,943,700	75.0	22.9	10.0	3.0	404.0	479.8	87.5	27.80	109.0	13.7	CON	Yes

TABLE D-3
SUMMARY OF SO_2 SOURCES INCLUDED IN THE PSD CLASS II MODELING ANALYSES

Facility ID	Facility Name / Emission Unit Description	EU ID	AERMOD ID Name	UTM Location X (m)	UTM Location Y (m)	Stack Parameters: Height ft	Height m	Diameter ft	Diameter m	Temperature °F	Temperature K	Velocity ft/s	Velocity m/s	SO_2 Emission Rate 24-Hour (lb/hr)	24-Hour (g/sec)	Type of PSD Source [a] (EXP/CON)	Modeled In Class II
0990042	FPL -Riviera Beach																
	Units 3&4 PSD Baseline		RIVU34B	593,270	2,960,620	298	90.8	16.0	4.88	263.0	401.5	88.1	26.9	-4356.0	-548.86	EXP	Yes
	Units 3&4		RIVU34	593,270	2,960,620	298	90.8	16.0	4.88	263.0	401.5	88.1	26.9	5098.0	642.35	CON	Yes
	Units 1		RIVU1	593,270	2,960,620	150	45.7	10.8	3.29	309.0	427.0	24.8	7.56	-160.0	-20.16	EXP	Yes
	Units 2		RIVU2	593,270	2,960,620	150	45.7	15.0	4.57	315.0	430.4	20.7	6.31	-298.0	-37.55	EXP	Yes
0990332	New Hope Power Partnership (Okeelanta)																
	Okeelanta Power Blrs 1,2,3 [b]		OKCOGENF	524,920	2,939,440	199.0	60.7	10.0	3.05	352.0	450.9	67.7	20.63	456.00	57.46	CON	Yes
0990005	Okeelanta [a]																
	Boiler 4 PSD Baseline	--	OKBLR4B	524,700	2,939,500	75.0	22.9	7.5	2.29	139.7	333.0	24.1	7.36	-86.90	-10.95	EXP	Yes
	Boiler 5 PSD Baseline	--	OKBLR5B	524,700	2,939,500	75.0	22.9	7.5	2.29	139.7	333.0	39.6	12.07	-124.13	-15.64	EXP	Yes
	Boiler 6 PSD Baseline	--	OKBLR6B	524,700	2,939,500	75.0	22.9	7.5	2.29	141.5	334.0	28.7	8.74	-124.13	-15.64	EXP	Yes
	Boiler 10 PSD Baseline	--	OKBLR10B	524,700	2,939,500	75.0	22.9	7.5	2.29	141.5	334.0	33.9	10.35	-136.11	-17.15	EXP	Yes
	Boiler 11 PSD Baseline	--	OKBLR11B	524,700	2,939,500	75.0	22.9	7.5	2.29	155.9	342.0	32.4	9.89	-133.25	-16.79	EXP	Yes
	Boilers 4-11 PSD baseline		OKBLRB	524,700	2,939,500	75.0	22.9	7.5	2.29	139.7	333.0	24.1	7.36	-604.52	-76.17	EXP	Yes
	Boiler 16 PSD [b]	--	OKBLR16	524,700	2,939,500	75.0	22.9	5.0	1.52	393.0	473.7	100.7	30.69	12.10	1.52	CON	Yes
0850102	Indiantown Cogeneration LP - Indiantown Plant																
	Pulverized Coal Main Boiler	1	INDTOWN1	547,650	2,990,700	495.0	150.9	16.0	4.88	140.0	333.2	93.2	28.4	582.00	73.33	CON	Yes
0850001	FPL - Martin Power Plant																
	Units 1&2 PSD Baseline	1-2	MART12B	542,680	2,992,650	499.0	152.1	26.2	8.0	338.0	443.2	68.7	20.94	-13840.00	-1743.84	EXP	Yes
	Units 1&2	1-2	MART12	542,680	2,992,650	499.0	152.1	26.2	8.0	338.0	443.2	68.7	20.94	8817.00	1110.94	CON	Yes
	Units 3&4	3-6	MART34	542,680	2,992,650	213.0	64.9	20.0	6.1	280.0	410.9	62.0	18.90	4.00	0.50	CON	Yes
	Aux Boiler	7	MARTAUX	542,680	2,992,650	60.0	18.3	3.6	1.1	504.1	535.4	50.0	15.24	102.38	12.90	CON	Yes
	Diesel Genarator	9	MARTGEN	542,680	2,992,650	25.0	7.6	1.0	0.3	955.0	785.9	130.0	39.62	4.05	0.51	CON	Yes
	Unit 8 (EUs 11, 12, 17, &18)	--	MART8OIL	542,680	2,992,650	120.0	36.6	19.0	5.8	296.3	420.0	73.5	22.40	16.00	2.02	CON	Yes
0510003	U.S. Sugar Clewiston Mill and Refinery																
	On-crop season [a]																
	Boiler No. 1	001	USSBLR1N	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	29.80	3.75	CON	Yes
	Boiler No. 2	002	USSBLR2N	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	26.80	3.38	CON	Yes
	Boiler No. 4	009	USSBLR4N	506,100	2,956,900	150.0	45.72	8.2	2.50	160.0	344.3	88.7	27.04	36.00	4.54	CON	Yes
	Boiler No. 7	014	USSBLR7N	506,100	2,956,900	225.0	68.58	8.0	2.44	335.0	441.5	94.5	28.80	125.50	15.81	CON	Yes
	Boiler No. 8	028	USSBLR8N	506,100	2,956,900	199.0	60.66	10.9	3.32	315.0	430.4	75.7	23.07	64.60	8.14	CON	Yes
	Off-crop season [a]																
	Boiler No. 7	014	USSBLR7F	506,100	2,956,900	225.0	68.58	8.0	2.44	335.0	441.5	94.5	28.80	125.50	15.81	CON	Yes
	Boiler No. 8	028	USSBLR8F	506,100	2,956,900	199.0	60.66	10.9	3.32	315.0	430.4	75.7	23.07	64.60	8.14	CON	Yes
	Baseline (on-crop)																
	Boiler No. 1	001	USSBLR1B	506,100	2,956,900	75.8	23.10	6.1	1.86	160.0	344.3	99.0	30.18	-38.10	-4.80	EXP	Yes
	Boiler No. 2	002	USSBLR2B	506,100	2,956,900	75.8	23.10	6.1	1.86	158.0	343.2	117.0	35.66	-38.10	-4.80	EXP	Yes
	Boiler No. 3	003	USSBLR3B	506,100	2,956,900	90.0	27.43	7.5	2.29	156.0	342.0	48.2	14.69	-21.70	-2.73	EXP	Yes
	East Pellet Plant		EPELLET	506,100	2,956,900	40.0	12.19	5.0	1.52	165.0	347.0	28.0	8.53	-78.00	-9.83	EXP	Yes
	West Pellet Plant		WPELLET	506,100	2,956,900	51.5	15.70	5.0	1.52	165.0	347.0	28.0	8.53	-78.00	-9.83	EXP	Yes
	Sugar Refinery Sources																
	Granular Carbon Furnace S-12	017	S12	506,100	2,956,900	30.0	9.14	2.00	0.61	160.0	344.3	22.8	6.95	0.64	0.081	CON	Yes
0110037	Florida Power & Light (PFL) - Fort Lauderdale																
	CTs 1-4 PSD		LAUDU45	579,390	2,883,360	150	45.7	18.0	5.5	330.0	438.7	158.7	48.37	398.60	50.22	CON	Yes
	GT 1-12 (0.5% fuel oil)		LDGT1_12	579,390	2,883,360	45	13.7	15.6	4.8	860.0	733.2	93.3	28.44	770.80	97.12	NO	No

TABLE D-3

SUMMARY OF SO_2 SOURCES INCLUDED IN THE PSD CLASS II MODELING ANALYSES

Facility ID	Facility Name / Emission Unit Description	EU ID	AERMOD ID Name	UTM Location X (m)	UTM Location Y (m)	Stack Parameters: Height ft	Height m	Diameter ft	Diameter m	Temperature °F	Temperature K	Velocity ft/s	Velocity m/s	SO_2 Emission Rate 24-Hour (lb/hr)	24-Hour (g/sec)	Type of PSD Source[a] (EXP/CON)	Modeled In Class II
	GT 13-24 (0.5% fuel oil)		LDGT1324	579,390	2,883,360	45	13.7	15.6	4.8	860.0	733.2	93.3	28.44	770.80	97.12	NO	No
	4&5 PSD Baseline		FTLAU45B	579,390	2,883,360	150	45.7	14.0	4.3	299.9	422.0	48.0	14.63	-1663.00	-209.54	EXP	Yes
0110036	FPL - Port Everglades Plant																
	Units 1&2 PSD Baseline		PTEVU12B	587,400	2,885,300	342.8	104.5	14.0	4.27	289.0	415.9	87.7	26.72	-5060.0	-637.6	EXP	Yes
	Units 1&2		PTEVU12	557,310	2,880,600	342.8	104.5	14.0	4.27	289.0	415.9	87.7	26.72	4072.9	513.2	CON	Yes
	Units 3&4 PSD Baseline		PTEVU34B	587,400	2,885,300	342.8	104.5	18.1	5.52	287.0	414.8	78.3	23.88	-8800.0	-1108.8	EXP	Yes
	Units 3&4		PTEVU34	557,310	2,880,600	342.8	104.5	18.1	5.52	287.0	414.8	78.3	23.88	6895.8	868.9	CON	Yes
	GT 1-12 (0.5% fuel oil)		PTEVGTS	587,400	2,885,300	44.0	13.4	15.6	4.75	860.1	733.2	93.3	28.43	395.9	49.9	NO	No
1110003	Ft. Pierce Utilities Authority																
	16.5 MW Boiler Unit #6	6	FPUA6	566,120	3,036,350	148.0	45.1	5.0	1.5	325	435.9	36.0	10.97	175.1	22.1	NO	No
	37.5 MW Boiler Unit #7	7	FPUA7	566,120	3,036,350	147.0	44.8	7.1	2.2	308	426.5	61.1	18.62	376.0	47.4	NO	No
	56.1 MW Boiler Unit #8	8	FPUA8	566,120	3.036,350	150.0	45.7	8.0	2.4	334	440.9	83.6	25.48	515.2	64.9	NO	No
	23.4 MW CCGT with 8.2 MW HRSG Unit # 9	9	FPUA9	566,120	3,036,350	68.0	20.7	11.2	3.4	426	492.0	59.8	18.23	319.0	40.2	CON	Yes
0250014	Rinker Materials Corporation																
	Stone Dryer & Soil Thermal Treatment Facility	14	RMC14	557,490	2,852,050	80.0	24.4	4.5	1.4	800	699.8	38.0	11.58	30.1	3.8	CON	Yes
	Kiln System (raw mill, kiln PH/PC and clinker cooler)	18	RMC18	557,490	2,852,050	359.0	109.4	8.0	2.4	464	513.2	160.9	49.04	306.0	38.6	CON	Yes
0610029	City of Vero Beach Municipal Utilities																
	Unit 1	1	VERBU1	561,400	3,056,500	200.0	61.0	3.5	1.1	289	415.9	105.5	32.16	230.2	29.0	NO	No
	Unit 2	2	VERBU2	561,400	3,056,500	200.0	61.0	3.5	1.1	347	448.2	137.2	41.82	399.5	50.3	NO	No
	Unit 3	3	VERBU3	561,400	3,056,500	200.0	61.0	7.3	2.2	342	445.4	46.3	14.11	1,127.5	142.1	NO	No
	Unit 4	4	VERBU4	561,400	3,056,500	200.0	61.0	7.0	2.1	283	412.6	77.7	23.68	548.0	69.0	CON	Yes
	Unit 5 Simple Cycle CT	5	VERBU5	561,400	3,056,500	125.0	38.1	11.0	3.4	410	483.2	82.1	25.02	124.3	15.7	CON	Yes

Note: EXP = PSD expanding source.
CON = PSD consuming source.
NO = Baseline Source, assuming potential baseline emissions are the same as current actual emissions.

[a] Facilities or sources within facilities that operate only during the October 1 through April 31 crop season. For sources identified operating during off-crop season, the season is May through September.

[b] Sugar mill sources that operate all year.

[c] Facility-wide SO_2 emission limit of 14 tons/day (1,166.7) lb/hr). Only Boilers 1 and 4 operate during off-crop season.

[d] Emission rate calculated based on actual fuel usage in 2006 of 213,830 gallons, which is assumed to be equivalent to 70 days of continuous operation and diesel sulfur content of 0.05%, AP-42 Table 3.4-1.

[e] Facility is shutdown with the permit still in existence. Modeled only in AAQS analysis.

[f] Facility is shutdown and the operating permit is withdrawn. Not modeled in AAQS analysis. Only baseline emissions units modeled in the increment analysis.

[g] Sources operated from November through March.

TABLE D-4

SUMMARY OF THE PM_{10} FACILITIES CONSIDERED FOR INCLUSION IN THE AAQS AND PSD CLASS II AIR MODELING ANALYSES BASED ON SOURCE GROUP BY DISTANCE AND DIRECTION

AIRS Number	Facility	County	UTM Coordinates East (km)	UTM Coordinates North (km)	Relative to WCEC [a] X (km)	Relative to WCEC [a] Y (km)	Relative to WCEC [a] Distance (km)	Relative to WCEC [a] Direction (deg)	Maximum PM_{10} Emissions (TPY)	Q, (TPY) Emission Threshold [b,c] (Dist - SID) x 20	Include in Modeling Analysis ?
Modeling Area [d]											
0990646	FPL West County Energy Center (WCEC)	Palm Beach	562.2	2953.0	0.0	0.4	0.4	358	438.4	SIA	YES
0990530	HUBBARD CONSTRUCTION COMPANY	Palm Beach	562.8	2952.0	0.6	-0.7	0.9	139	8.4	SIA	YES
0990348	PALM BEACH AGGREGATES, INC.	Palm Beach	563.0	2952.0	0.8	-0.7	1.0	129	12.2	SIA	YES
0990349	SFWMD Pump Station S-5A	Palm Beach	562.6	2951.3	0.3	-1.3	1.4	165	3.9	SIA	YES
Screening Area [d]											
0990016	ATLANTIC SUGAR ASSOCIATION	Palm Beach	552.9	2945.2	-9.3	-7.5	11.9	231	817.5	198	YES
0990019	OSCEOLA FARMS	Palm Beach	544.2	2968.0	-18.0	15.3	23.7	310	616.7	433	YES
0990026	SUGAR CANE GROWERS CO-OP	Palm Beach	534.9	2953.3	-27.3	0.6	27.3	271	1,724.4	506	YES
0990061	U.S.SUGAR CORP. BRYANT MILL	Palm Beach	537.8	2969.1	-24.4	16.5	29.4	304	906.3	548	YES
0990045	CITY OF LAKE WORTH UTILITIES	Palm Beach	592.8	2943.7	30.6	-9.0	31.9	106	1,753.5	598	YES
0990042	FLORIDA POWER & LIGHT (PRV)	Palm Beach	593.3	2960.6	31.1	8.0	32.1	76	6,679.5	601	YES
0990332	NEW HOPE POWER PARTNERSHIP	Palm Beach	524.9	2939.4	-37.3	-13.2	39.6	250	1,035.0	751	YES
0850001	FLORIDA POWER & LIGHT (PMR)	Martin	542.7	2992.7	-19.5	40.0	44.5	334	17,540.5	850	YES
0990185	SIKORSKY AIRCRAFT CORPORATION	Palm Beach	567.5	2975.0	5.3	22.3	23.0	13	4.6	419	NO
0990021	UNITED TECHNOLOGIES CORPORATION	Palm Beach	568.4	2975.8	6.2	23.2	24.0	15	239.0	440	NO
								Sum =	*243.6*	*419* [e]	*NO*
0850019	HANSON ROOF TILE, INC.	Martin	583.7	2991.7	21.5	39.0	44.6	29	8.1	851	NO
0990025	RINKER MATERIALS (LAKE PARK)	Palm Beach	591.9	2964.5	29.7	11.8	32.0	68	11.4	599	NO
0990234	SOLID WASTE AUTHORITY OF PBC	Palm Beach	584.5	2961.3	22.3	8.6	23.9	69	286.5	438	NO
0990344	PARKWAY ASPHALT, INC.	Palm Beach	587.4	2962.1	25.2	9.5	26.9	69	15.4	498	NO
								Sum =	*301.9*	*438* [e]	*NO*
0990123	FLORIDA POWER & LIGHT (PDC/OSF)	Palm Beach	589.7	2961.2	27.5	8.5	28.8	73	11.5	536	NO
0990612	HEADWATERS RESOURCES, INC	Palm Beach	591.4	2960.6	29.2	8.0	30.3	75	1.9	565	NO
0990630	SOUTH FLORIDA MATERIALS CORP.	Palm Beach	593.2	2960.8	31.0	8.2	32.0	75	15.4	601	NO
0990120	RINKER MATERIALS (RIVIERA BEACH)	Palm Beach	591.2	2960.2	29.0	7.5	30.0	75	3.4	559	NO
0990127	TARMAC AMERICA	Palm Beach	591.6	2960.3	29.4	7.6	30.4	75	13.1	568	NO
0990046	CEMEX, INC.	Palm Beach	594.0	2960.7	31.8	8.0	32.8	76	3.8	616	NO
0990325	ROYAL PALM MEMORIAL GARDENS, INC.	Palm Beach	593.4	2960.2	31.2	7.5	32.1	76	2.3	602	NO
0990305	NORTHWOOD FUNERAL HOME	Palm Beach	593.8	2960.1	31.6	7.4	32.5	77	4.6	609	NO
								Sum =	*55.9*	*536* [e]	*NO*
0990333	FLORIDA GAS TRANSMISSION COMPANY	Palm Beach	584.4	2957.1	22.2	4.4	22.6	79	6.0	412	NO
0990188	ANIMAL RESCUE LEAGUE	Palm Beach	588.6	2956.0	26.4	3.3	26.6	83	1.4	492	NO
0990146	TRI-COUNTY CONCRETE PRODUCTS	Palm Beach	583.9	2953.9	21.7	1.2	21.7	87	2.0	395	NO
								Sum =	*9.5*	*395* [e]	*NO*
0990122	MASCHMEYER CONCRETE (WEST PALM BEACH)	Palm Beach	583.0	2952.4	20.8	-0.3	20.8	91	82.3	376	NO
0990087	RANGER CONSTRUCTION INDUSTRIES, INC.	Palm Beach	579.9	2951.7	17.7	-1.0	17.7	93	28.8	314	NO
7775057	CRUSHER CONTRACTORS CO.		582.5	2951.2	20.3	-1.4	20.4	94	8.0	367	NO
0990091	RINKER MATERIALS (CEN-CON, WPB)	Palm Beach	580.3	2951.2	18.1	-1.5	18.2	95	5.2	324	NO
0990310	COMMUNITY ASPHALT CORP	Palm Beach	582.3	2950.8	20.1	-1.9	20.2	95	128.2	364	NO
								Sum =	*252.5*	*314* [e]	*NO*
0990620	SFWMD Pump Station S-319	Palm Beach	566.3	2951.2	4.1	-1.4	4.3	109	8.9	47	NO
0990109	RINKER MATERIALS (LAKE WORTH)	Palm Beach	592.6	2945.1	30.4	-7.6	31.3	104	156.0	587	NO
0990322	TREASURE COAST CREMATORY	Palm Beach	594.0	2941.0	31.8	-11.7	33.9	110	5.3	637	NO
								Sum =	*161.3*	*587* [e]	*NO*

TABLE D-4

SUMMARY OF THE PM_{10} FACILITIES CONSIDERED FOR INCLUSION IN THE AAQS AND PSD CLASS II AIR MODELING ANALYSES BASED ON SOURCE GROUP BY DISTANCE AND DIRECTION

AIRS Number	Facility	County	UTM Coordinates East (km)	UTM Coordinates North (km)	Relative to WCEC[a] X (km)	Relative to WCEC[a] Y (km)	Relative to WCEC[a] Distance (km)	Relative to WCEC[a] Direction (deg)	Maximum PM_{10} Emissions (TPY)	Q, (TPY) Emission Threshold[b,c] (Dist - SID) x 20	Include in Modeling Analysis ?
0990562	SOUTH FLORIDA SHAVINGS CO.	Palm Beach	579.2	2941.1	17.0	-11.6	20.6	124	11.4	371	NO
0990095	BETHESDA MEMORIAL HOSPITAL	Palm Beach	592.6	2931.8	30.4	-20.9	36.9	124	5.9	697	NO
								Sum =	*17.3*	*371*[c]	*NO*
0990094	CONTINENTALFLORIDA MATERIALS INC.	Palm Beach	590.3	2927.0	28.1	-25.7	38.0	132	150.7	721	NO
0990129	TARMAC FLORIDA (DELRAY BEACH)	Palm Beach	592.3	2924.8	30.1	-27.9	41.0	133	169.3	780	NO
0990328	HARDRIVES ASPHALT COMPANY	Palm Beach	590.6	2923.5	28.4	-29.2	40.7	136	12.7	774	NO
								Sum =	*332.7*	*721*[c]	*NO*
0990107	MONIER ROOF TILE	Palm Beach	591.2	2916.8	29.0	-35.9	46.1	141	4.0	882	NO
0990015	BOCA RESORTS, INC	Palm Beach	592.0	2913.7	29.8	-39.0	49.0	143	3.3	941	NO
0990023	RINKER MATERIALS (BOCA RATON)	Palm Beach	589.4	2915.7	27.2	-37.0	45.9	144	13.6	878	NO
0990119	BOCA RATON COMMUNITY HOSPITAL	Palm Beach	589.5	2915.5	27.3	-37.2	46.1	144	2.5	882	NO
								Sum =	*23.4*	*878*[c]	*NO*
0990621	SOUTH FLORIDA WATER MANANGEMENT DISTRICT	Palm Beach	567.2	2945.0	5.0	-7.7	9.2	147	9.2	143	NO
0110017	PRE-CAST SPECIALTIES, INC	Broward	586.5	2907.2	24.3	-45.5	51.5	152	1.7	991	NO
0111024	HANSON ROOF TILE INC	Broward	585.5	2908.9	23.3	-43.8	49.6	152	10.4	951	NO
0112061	FLORIDA ROCK INDUSTRIES INC.	Broward	584.7	2910.4	22.5	-42.3	47.9	152	4.8	917	NO
0110045	HARDRIVES ASPHALT COMPANY	Broward	583.8	2909.1	21.6	-43.5	48.6	154	96.5	932	NO
0112120	WHEELABRATOR NORTH BROWARD, INC.	Broward	583.9	2907.6	21.7	-45.1	50.0	154	296.8	960	NO
								Sum =	*410.1*	*917*[c]	*NO*
0990350	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	556.2	2927.8	-6.0	-24.8	25.6	194	14.4	471	NO
0990354	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	545.8	2912.8	-16.4	-39.9	43.1	202	7.8	823	NO
0990614	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	540.5	2919.5	-21.7	-33.2	39.7	213	20.7	753	NO
0990549	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	554.2	2940.5	-8.0	-12.2	14.6	213	14.5	252	NO
0990615	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Palm Beach	519.1	2923.8	-43.1	-28.9	51.9	236	20.6	998	NO
0990011	SEM-CHI RICE PRODUCTS CORP	Palm Beach	553.4	2949.5	-8.8	-3.2	9.3	250	2.0	147	NO
0990005	OKEELANTA CORP	Palm Beach	524.7	2939.5	-37.5	-13.2	39.7	251	154.8	755	NO
0850141	GULFSTREAM NATURAL GAS SYSTEM, L.L.C.	Martin	543.8	2993.1	-18.4	40.5	44.5	336	1.4	849	NO
0850102	INDIANTOWN COGENERATION, L.P.	Martin	547.7	2990.7	-14.6	38.0	40.7	339	290.7	775	Yes
0850012	BAY STATE MILLING CO	Martin	547.4	2991.7	-14.8	39.0	41.7	339	93.5	795	Yes
0850002	LOUIS DREYFUS CITRUS, INC.	Martin	548.0	2991.5	-14.2	38.8	41.3	340	84.8	787	Yes
								Sum =	*469.0*	*775*[c]	*No*
0850009	RINKER MATERIALS INDIANTOWN	Martin	550.3	2989.9	-11.9	37.3	39.1	342	30.0	742	NO
Beyond Screening Area out to 100 km[d]											
0112115	HANSON PAVER PRODUCTS, INC.	Broward	585.2	2904.4	23.0	-48.3	53.5	155	6.6	1,029	NO
0110038	OLDCASTLE RETAIL, INC.	Broward	586.2	2904.6	24.0	-48.1	53.7	153	115.6	1,034	NO
0110009	RINKER MATERIALS OF FLORIDA, INC.	Broward	586.0	2904.3	23.8	-48.4	53.9	154	3.0	1,038	NO
0850004	TARMAC FLORIDA, INC.	Martin	575.3	3006.0	13.0	53.3	54.9	14	16.6	1,058	NO
0510003	U.S. SUGAR CORP. CLEWISTON MILL	Hendry	506.1	2956.9	-56.1	4.2	56.3	274	1,099.4	1,085	YES
0110351	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Broward	522.3	2912.3	-39.9	-40.4	56.8	225	46.1	1,096	NO
0110030	TARMAC FLORIDA	Broward	589.1	2901.2	26.9	-51.5	58.1	152	12.4	1,121	NO

TABLE D-4

SUMMARY OF THE PM_{10} FACILITIES CONSIDERED FOR INCLUSION IN THE AAQS AND PSD CLASS II AIR MODELING ANALYSES BASED ON SOURCE GROUP BY DISTANCE AND DIRECTION

AIRS Number	Facility	County	UTM Coordinates East (km)	UTM Coordinates North (km)	Relative to WCEC [a] X (km)	Relative to WCEC [a] Y (km)	Relative to WCEC [a] Distance (km)	Relative to WCEC [a] Direction (deg)	Maximum PM_{10} Emissions (TPY)	Q, (TPY) Emission Threshold [b,c] (Dist - SID) x 20	Include in Modeling Analysis ?
0111013	MODERN CONCRETE PRODUCTS, INC.	Broward	584.0	2897.5	21.8	-55.2	59.3	158	14.3	1,146	NO
0111019	HOLY CROSS HOSPITAL	Broward	587.1	2896.5	24.9	-56.1	61.4	156	22.8	1,188	NO
0112074	TRANSFLO TERMINAL SERVICES, INC. (TTSI)	Broward	583.3	2887.8	21.1	-64.9	68.2	162	27.0	1,324	NO
0112410	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	Broward	555.1	2882.4	-7.1	-70.2	70.6	186	10.0	1,371	NO
0112119	WHEELABRATOR SOUTH BROWARD, INC	Broward	578.9	2883.4	16.7	-69.3	71.2	166	309.7	1,385	NO
0110037	FLORIDA POWER & LIGHT (PFL)	Broward	579.4	2883.4	17.2	-69.3	71.4	166	2,028.2	1,388	YES
7775172	BETTER ROADS, INC.	Glades	492.0	2966.0	-70.2	13.4	71.5	281	21.5	1,390	NO
0110032	RINKER MATERIALS CORP	Broward	587.2	2885.6	25.0	-67.1	71.6	160	157.7	1,391	NO
0110036	FLORIDA POWER & LIGHT (PPE)	Broward	587.4	2885.3	25.2	-67.4	71.9	159	34,490.0	1,398	YES
0111012	CONTINENTAL FLORIDA MATERIALS, INC.	Broward	588.0	2885.4	25.8	-67.3	72.0	159	512.3	1,401	NO
0430008	ATLAS-TRANSOIL INC	Glades	489.2	2966.6	-73.0	13.9	74.3	281	20.9	1,446	NO
0510022	FIBERSTAR, INC.	Hendry	487.7	2957.7	-74.5	5.0	74.7	274	345.2	1,454	NO
0510015	SOUTHERN GARDENS CITRUS PROCESSING CORP.	Hendry	487.5	2957.6	-74.7	4.9	74.9	274	426.6	1,457	NO
1110004	TROPICANA MANFACTURING COMPANY, INC	Broward	559.6	3028.3	-2.6	75.7	75.7	358	251.0	1,474	NO
1110121	FLORIDA MUNICIPAL POWER AGENCY	Broward	561.5	3029.0	-0.7	76.3	76.3	359	516.6	1,487	NO
1110040	RANGER CONSTRUCTION INDUSTRIES, INC.	Broward	561.7	3030.2	-0.5	77.5	77.5	360	52.0	1,510	NO
0930104	OKEECHOBEE LANDFILL, INC.	Okeechobee	530.3	3024.0	-31.9	71.3	78.1	336	16.6	1,523	NO
1110060	FLORIDA GAS TRANSMISSION COMPANY	Broward	557.2	3035.8	-5.0	83.1	83.3	357	17.7	1,625	NO
1110003	FT PIERCE UTILITIES AUTHORITY	Broward	566.1	3036.4	3.9	83.7	83.8	3	460.7	1,636	NO
0250258	WHITE ROCK QUARRIES	Dade	560.0	2868.8	-2.2	-83.9	83.9	182	116.0	1,638	NO
0250374	TARMAC FLORIDA INC	Dade	579.5	2868.1	17.3	-84.6	86.3	168	148.9	1,686	NO
0250659	RINKER MATERIALS OF FLORIDA, INC.	Dade	558.5	2864.6	-3.7	-88.1	88.2	182	43.4	1,723	NO
0250530	TRADEMARK METALS RECYCLING	Dade	574.4	2864.1	12.2	-88.6	89.4	172	60.7	1,748	NO
0250020	TARMAC AMERICA LLC	Dade	562.3	2861.7	0.1	-91.0	91.0	180	589.3	1,779	NO
0250507	SOUTH FLORIDA CONCRETE & READY MIX #2	Dade	564.2	2860.9	2.0	-91.8	91.8	179	36.0	1,796	NO
0250022	U S FOUNDRY MANUFACTURING CORP.	Dade	567.3	2859.8	5.1	-92.9	93.0	177	15.3	1,820	NO
0250348	MIAMI DADE RRF	Dade	563.8	2857.6	1.6	-95.0	95.0	179	232.8	1,861	NO
0210031	BREITBURN FLORIDA, LLC	Collier	509.6	2873.2	-52.6	-79.5	95.3	214	10.8	1,866	NO
0250281	MIAMI-DADE WATER AND SEWER DEPARTMENT	Dade	570.7	2856.8	8.5	-95.9	96.3	175	70.3	1,885	NO
7770010	PAN AMERICAN CONSTRUCTION-APAC FLORIDA	Miami-Dade	560.5	2854.9	-1.7	-97.8	97.8	181	60.0	1,915	NO
0250534	FPT FLORIDA LLC	Dade	574.4	2854.2	12.2	-98.5	99.2	173	10.2	1,944	NO
0610021	OCEAN SPRAY CRANBERRIES	Indian River	550.6	3051.3	-11.6	98.6	99.3	353	129.1	1,946	NO
0250006	FLORIDA ROCK INDUSTRIES,INC.	Dade	561.1	2853.2	-1.1	-99.5	99.5	181	142.7	1,949	NO
0250014	RINKER MATERIALS CORPORATION.	Dade	557.5	2852.1	-4.7	-100.6	100.7	183	660.4	1,974	NO
0610029	CITY OF VERO BEACH	Indian River	561.4	3056.5	-0.8	103.8	103.8	360	1,787.7	2,037	YES

Note: SIA = Significant impact are for the project

[a] West County Unit 3 East and North Coordinates (km) are: 562.202 2952.65

[b] The significant impact distance (SID) for the project is estimated to be: 2 km

[c] Based on the North Carolina Screening Threshold method, a background facility is included in the modeling analysis if the facility is beyond the modeling area and its emission rate is greater than the product of (Distance-SID) x 20.

[d] "Modeling Area" is the area in which the project is predicted to have a significant impact. EPA recommends that all sources within this area be modeled.

"Screening Area" is the significant distance of 2 km plus 50 km beyond the modeling area. EPA recommends that sources be modeled that are expected to have a significant impact in the modeling area. "Beyond Screening Area out to 100 km" is the area beyond the screening area and out to 100 km in which large sources are included in the modeling.

[e] Minimum Q for source group. Facilities within a source group are located within 5 km and 3 degrees of one another.

TABLE D-5
SUMMARY OF PM_{10} SOURCES INCLUDED IN THE AAQS AND PSD CLASS II MODELING ANALYSES

Facility ID	Facility Name / Emission Unit Description	EU ID	AERMOD ID Name	UTM Location X (m)	UTM Location Y (m)	Stack Height (ft)	Stack Height (m)	Diameter (ft)	Diameter (m)	Temperature (°F)	Temperature (K)	Velocity (ft/s)	Velocity (m/s)	PM_{10} Emission Rate 24-Hour (lb/hr)	PM_{10} Emission Rate 24-Hour (g/sec)	PSD Source? [c] (EXP/CON)	Modeled In AAQS	Modeled In Class II
0990646	FPL West County Energy Center (WCEC)																	
	CT 1A - Oil Firing 75%L/95°F		FPLWC1A	562,217	2,953,556	149	45.42	22.0	6.71	345.0	447.0	66.8	20.36	32.66	4.11	CON	Yes	Yes
	CT 1B - Oil Firing 75%L/95°F		FPLWC1B	562,216	2,953,462	149	45.42	22.0	6.71	345.0	447.0	66.8	20.36	32.66	4.11	CON	Yes	Yes
	CT 1C - Oil Firing 75%L/95°F		FPLWC1C	562,215	2,953,417	149	45.42	22.0	6.71	345.0	447.0	66.8	20.36	32.66	4.11	CON	Yes	Yes
	CT 2A - Oil Firing 75%L/95°F		FPLWC2A	562,210	2,953,150	149	45.42	22.0	6.71	345.0	447.0	66.8	20.36	32.66	4.11	CON	Yes	Yes
	CT 2B - Oil Firing 75%L/95°F		FPLWC2B	562,209	2,953,056	149	45.42	22.0	6.71	345.0	447.0	66.8	20.36	32.66	4.11	CON	Yes	Yes
	CT 2C - Oil Firing 75%L/95°F		FPLWC2C	562,208	2,953,011	149	45.42	22.0	6.71	345.0	447.0	66.8	20.36	32.66	4.11	CON	Yes	Yes
	Natural Gas Heater 1		FULHEAT1	562,196	2,953,700	30	9.14	1.0	0.30	500.0	533.2	53.0	16.15	0.020	0.00252	CON	Yes	Yes
	Natural Gas Heater 2		FULHEAT2	562,196	2,953,317	30	9.14	1.0	0.30	500.0	533.2	53.0	16.15	0.020	0.00252	CON	Yes	Yes
	Cooling Tower 1 - 26 Cells [i]		COOL1	562,263	2,953,602	63	19.20	35.0	10.67	96.9	309.2	23.52	7.17	1.165	0.147	CON	Yes	Yes
	Cooling Tower 2 - 26 Cells [i]		COOL2	562,253	2,953,200	63	19.20	35.0	10.67	96.9	309.2	23.52	7.17	1.165	0.147	CON	Yes	Yes
0990530	Hubbard Construction Company																	
	Hot mix asphalt plant (175 TPH)	2	HUBB2	562,627	2,951,930	30.0	9.14	3.8	1.16	250.0	394.3	100.2	30.54	9.20	1.16	CON	Yes	Yes
	Asphalt Cement Heater	3	HUBB3	562,627	2,951,930	30.0	9.14	3.8	1.16	250.0	394.3	100.2	30.54	0.57	0.07	CON	Yes	Yes
	Units 2-3		HUBB23	562,627	2,951,930	30.0	9.14	3.8	1.16	250.0	394.3	100.2	30.54	9.77	1.23	CON	Yes	Yes
	Portable RAP Crusher and Screening Operation [d]	4	HUBFUG	562,627	2,951,930	15.0	4.57	--	--	--	--	--	--	6.33	0.80	CON	Yes	Yes
0990348	Palm Beach Aggregates, Inc. [f]																	
	Fugitive Emissions from material handling [d] - potential	1	PBAFUG	562,751	2,951,929	15.0	4.57	--	--	--	--	--	--	3.87	0.49	CON	Yes	No
	Truck Traffic [e] - potential	3	TRAFFIC	562,751	2,951,929	18.0	5.49	--	--	--	--	--	--	2.77	0.35	CON	Yes	No
	Fugitive Emissions from material handling [d] - actual	1	PBAFUG	562,751	2,951,929	15.0	4.57	--	--	--	--	--	--	1.34	0.17	CON	No	Yes
	Truck Traffic [e] - actual	3	TRAFFIC	562,751	2,951,929	18.0	5.49	--	--	--	--	--	--	1.27	0.16	CON	No	Yes
0990349	SFWMD - Pump Station S-5A [g]																	
	Six -1600 hp diesel engines - potential	1	PS_S5A	562,860	2,951,370	16.0	4.88	3.3	0.99	775.0	685.9	17.4	5.30	3.32	0.42	CON	Yes	No
	Six -1600 hp diesel engines - actual	1	PS_S5A	562,860	2,951,370	16.0	4.88	3.3	0.99	775.0	685.9	17.4	5.30	0.88	0.11	CON	No	Yes
0990620	SFWMD - Pump Station S-319																	
	Three - 2005 bhp and two - 1210 bhp diesel engines	1	PS_S319	566,300	2,951,220	58.0	17.68	1.5	0.46	650.0	616.5	109.6	33.41	0.34	0.04	CON	Yes	Yes
0990016	Atlantic Sugar [a, b]																	
	Unit 1	--	ATLSUG1	552,900	2,945,200	90.0	27.4	6.0	1.83	163.1	346.0	58.9	17.97	83.97	10.58	CON	Yes	No
	Unit 2	--	ATLSUG2	552,900	2,945,200	90.0	27.4	6.0	1.83	170.3	350.0	76.6	23.36	83.97	10.58	CON	Yes	No
	Unit 3	--	ATLSUG3	552,900	2,945,200	90.0	27.4	6.0	1.83	170.3	350.0	70.7	21.56	78.02	9.83	CON	Yes	No
	Unit 4	--	ATLSUG4	552,900	2,945,200	90.0	27.4	6.0	1.83	159.5	344.0	82.5	25.16	73.70	9.29	CON	Yes	No
	Units 1-4		ATLSUG14	552,900	2,945,200	90.0	27.4	6.0	1.83	163.1	346.0	58.9	17.97	319.65	40.28	CON	Yes	No
	Unit 5 PSD [b]	--	ATLSUG5	552,900	2,945,200	90.0	27.4	5.5	1.68	150.5	339.0	63.1	19.24	35.71	4.50	CON	Yes	No
	Baseline																	
	Unit 1 PSD Baseline	--	ATLSUG1B	552,900	2,945,200	62.0	18.9	6.3	1.92	451.1	506.0	41.7	12.70	-116.98	-14.74	EXP	No	Yes
	Unit 2 PSD Baseline	--	ATLSUG2B	552,900	2,945,200	62.0	18.9	6.3	1.92	460.1	511.0	35.8	10.90	-141.98	-17.89	EXP	No	Yes
	Unit 3 PSD Baseline	--	ATLSUG3B	552,900	2,945,200	71.8	21.9	6.0	1.83	479.9	522.0	57.4	17.50	-73.97	-9.32	EXP	No	Yes
	Unit 4 PSD Baseline	--	ATLSUG4B	552,900	2,945,200	60.0	18.3	6.0	1.83	159.5	344.0	49.2	15.00	-73.41	-9.25	EXP	No	Yes
0990019	Osceola Farms [a]																	
	Unit 2	--	OSBLR2	544,200	2,968,000	90.0	27.4	5.0	1.52	155.9	342.0	40.7	12.41	56.00	7.06	CON	Yes	Yes
	Unit 3	--	OSBLR3	544,200	2,968,000	90.0	27.4	6.25	1.91	154.0	340.9	38.8	11.84	58.40	7.36	CON	Yes	Yes
	Unit 4	--	OSBLR4	544,200	2,968,000	90.0	27.4	6.0	1.83	153.6	340.7	59.5	18.14	84.00	10.58	CON	Yes	Yes
	Unit 5a	--	OSBLR5A	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	56.9	17.33	36.25	4.57	CON	Yes	Yes
	Unit 5b	--	OSBLR5B	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	46.7	14.23	29.75	3.75	CON	Yes	Yes
	Unit 6	--	OSBLR6	544,200	2,968,000	90.0	27.4	6.17	1.88	151.0	339.3	53.0	16.14	56.90	7.17	CON	Yes	Yes
	Units 2-6		OSBLR5B	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	46.7	14.23	321.30	40.48	CON	Yes	Yes
	Baseline																	
	Unit 1 PSD Baseline	--	OSBLR1B	544,200	2,968,000	72.2	22.0	5.0	1.52	155.9	342.0	29.5	8.98	-26.83	-3.38	EXP	No	Yes

TABLE D-5
SUMMARY OF PM_{10} SOURCES INCLUDED IN THE AAQS AND PSD CLASS II MODELING ANALYSES

Facility ID	Facility Name / Emission Unit Description	EU ID	AERMOD ID Name	UTM Location X (m)	UTM Location Y (m)	Stack Parameters Height ft	Height m	Diameter ft	Diameter m	Temperature °F	Temperature K	Velocity ft/s	Velocity m/s	PM_{10} Emission Rate 24-Hour (lb/hr)	24-Hour (g/sec)	PSD Source? [a] (EXP/CON)	Modeled In AAQS	Modeled In Class II
	Unit 2 PSD Baseline	--	OSBLR2B	544,200	2,968,000	72.2	22.0	5.0	1.52	155.9	342.0	46.6	14.22	-59.68	-7.52	EXP	No	Yes
	Unit 3 PSD Baseline	--	OSBLR3B	544,200	2,968,000	72.2	22.0	6.5	1.98	155.9	342.0	36.8	11.23	-31.99	-4.03	EXP	No	Yes
	Unit 4 PSD Baseline	--	OSBLR4B	544,200	2,968,000	72.2	22.0	6.0	1.83	155.9	342.0	43.8	13.35	-47.70	-6.01	EXP	No	Yes
0990026	Sugar Cane Growers Co-Op [c]																	
	On-crop season [d]																	
	Boiler No. 1	001	SCBLR1N	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	49.6	15.12	66.70	8.40	CON	Yes	Yes
	Boiler No. 2	002	SCBLR2N	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	51.1	15.58	66.00	8.32	CON	Yes	Yes
	Boiler No. 3	003	SCBLR3N	534,900	2,953,300	180.0	54.86	5.3	1.62	156.0	342.0	40.3	12.28	52.50	6.62	CON	Yes	Yes
	Boiler No. 4	004	SCBLR4N	534,900	2,953,300	180.0	54.86	8.9	2.72	162.0	345.4	54.1	16.49	114.50	14.43	CON	Yes	Yes
	Boiler No. 5	005	SCBLR5N	534,900	2,953,300	150.0	45.72	7.0	2.13	160.0	344.3	77.1	23.50	109.80	13.83	CON	Yes	Yes
	Boiler No. 8	008	SCBLR8N	534,900	2,953,300	155.0	47.24	9.5	2.90	154.0	340.9	37.6	11.46	75.60	9.53	CON	Yes	Yes
	Off-crop season [d]																	
	Boiler No. 1	001	SCBLR1F	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	49.6	15.12	66.70	8.40	CON	Yes	Yes
	Boiler No. 4	004	SCBLR4F	534,900	2,953,300	180.0	54.86	8.9	2.72	162.0	345.4	54.1	16.49	114.50	14.43	CON	Yes	Yes
	Baseline																	
	BOILER #1 PSD Baseline Off-crop season	--	SCBLR1BF	534,900	2,953,300	79.1	24.10	5.5	1.68	395.0	474.8	52.3	15.94	-64.50	-8.13	EXP	No	Yes
	BOILER #2 PSD Baseline Off-crop season	--	SCBLR2BF	534,900	2,953,300	79.1	24.10	5.5	1.68	405.1	480.4	58.6	17.88	-113.20	-14.26	EXP	No	Yes
	BOILER #3 PSD Baseline Off-crop season	--	SCBLR3BF	534,900	2,953,300	79.1	24.10	5.5	1.68	470.0	516.5	54.1	16.50	0.00	0.00	EXP	No	Yes
	Boilers 1-3 PSD Baseline off-Crop		BLR123BF	534,900	2,953,300	79.1	24.10	5.5	1.68	395.0	474.8	52.3	15.94	-177.70	-22.39	EXP	No	Yes
	BOILER #4 PSD Baseline Off-crop season	--	SCBLR4BF	534,900	2,953,300	86.0	26.20	5.3	1.62	149.1	338.2	32.4	9.88	-68.10	-8.58	EXP	No	Yes
	BOILER #5 PSD Baseline Off-crop season	--	SCBLR5BF	534,900	2,953,300	79.1	24.10	6.7	2.03	490.0	527.6	93.2	28.42	-164.60	-20.74	EXP	No	Yes
	BOILER #6 PSD Baseline Off-crop season	--	SCBLR6BF	534,900	2,953,300	40.0	12.20	5.0	1.52	630.1	605.4	21.4	6.53	0.00	0.00	EXP	No	Yes
	BOILER #7 PSD Baseline Off-crop season	--	SCBLR7BF	534,900	2,953,300	40.0	12.20	5.0	1.52	630.4	605.6	56.4	17.20	0.00	0.00	EXP	No	Yes
	BOILER #1 PSD Baseline On-crop season	--	SCBLR1BN	534,900	2,953,300	79.1	24.10	5.5	1.68	395.0	474.8	52.3	15.94	-95.60	-12.05	EXP	No	Yes
	BOILER #2 PSD Baseline On-crop season	--	SCBLR2BN	534,900	2,953,300	79.1	24.10	5.5	1.68	405.1	480.4	58.6	17.88	-174.50	-21.99	EXP	No	Yes
	BOILER #3 PSD Baseline On-crop season	--	SCBLR3BN	534,900	2,953,300	79.1	24.10	5.5	1.68	470.0	516.5	54.1	16.50	-86.90	-10.95	EXP	No	Yes
	Boilers 1-3 PSD Baseline On-Crop		BLR123BN	534,900	2,953,300	79.1	24.10	5.5	1.68	395.0	474.8	52.3	15.94	-357.00	-44.98	EXP	No	Yes
	BOILER #4 PSD Baseline On-crop season	--	SCBLR4BN	534,900	2,953,300	86.0	26.20	5.3	1.62	149.1	338.2	32.4	9.88	-68.10	-8.58	EXP	No	Yes
	BOILER #5 PSD Baseline On-crop season	--	SCBLR5BN	534,900	2,953,300	79.1	24.10	6.7	2.03	490.0	527.6	93.2	28.42	-117.40	-14.79	EXP	No	Yes
	BOILER #6 PSD Baseline On-crop season	--	SCBLR6BN	534,900	2,953,300	40.0	12.20	5.0	1.52	630.1	605.4	21.4	6.53	-3.70	-0.47	EXP	No	Yes
	BOILER #7 PSD Baseline On-crop season	--	SCBLR7BN	534,900	2,953,300	40.0	12.20	5.0	1.52	630.4	605.6	56.4	17.20	-8.80	-1.11	EXP	No	Yes
0990061	U.S. Sugar Corp. Bryant Mill [b,f]																	
	Boiler No. 1	001	USSBRY1	537,830	2,969,120	65.0	19.81	5.4	1.65	160.0	344.3	113.5	34.60	115.5	14.55	CON	No	No
	Boiler No. 2	002	USSBRY2	537,830	2,969,120	65.0	19.81	5.4	1.65	160.0	344.3	113.5	34.60	115.5	14.55	CON	No	No
	Boiler No. 3	003	USSBRY3	537,830	2,969,120	65.0	19.81	5.4	1.65	160.0	344.3	113.5	34.60	115.5	14.55	CON	No	No
	Boilers 1-3		USBRY123	537,830	2,969,120	65.0	19.81	5.4	1.65	160.0	344.3	113.5	34.60	346.5	43.66	CON	No	No
	Boiler No. 5	005	USSBRY5	537,830	2,969,120	150.0	45.72	4.3	1.31	142.0	334.3	236.4	72.06	87.5	11.03	CON	No	No
	Unit 1 PSD Baseline [g]		USSBRY1B	537,830	2,969,120	65.0	19.81	5.5	1.68	430.0	494.3	145.3	44.30	-39.45	-4.97	EXP	No	Yes
	Unit 2&3 PSD Baseline [g]		USBRY23B	537,830	2,969,120	65.0	19.81	5.5	1.68	160.0	344.3	124.3	37.90	-72.23	-9.10	EXP	No	Yes
0990045	City of Lake Worth Utilities																	
	Diesel Generator Units 1-5	1-5	LAKWTHDG	592,800	2,943,700	17.0	5.2	1.8	0.6	667.0	625.9	121.7	37.09	24.0	3.0	CON	Yes	Yes
	Gas Turbine No.1	6	LAKWTHHR	592,800	2,943,700	46.0	14.0	16.0	4.9	837.0	720.4	81.5	24.84	13.0	1.6	CON	Yes	Yes
	Steam Generator Unit 1	7	LAKWTHU1	592,800	2,943,700	60.0	18.3	5.0	1.5	311.0	428.2	34.5	10.52	13.0	1.6	EXP	No	Yes
	Unit 3, S-3	9	LAKWTHU3	592,800	2,943,700	113.0	34.4	7.0	2.1	293.0	418.2	51.4	15.70	23.1	2.9	NO	Yes	No
	Unit 4, S-4	10	LAKWTHU4	592,800	2,943,700	115.0	35.1	7.5	2.3	293.0	418.2	55.8	17.00	29.8	3.8	NO	Yes	No
	Combined Cycle Unit, S-5	11	LAKWTHU5	592,800	2,943,700	75.0	22.9	10.0	3.0	404.0	479.8	87.5	27.80	9.0	1.1	CON	Yes	Yes
0990042	FPL -Riviera Beach																	
	Units 3&4 at 2.5%s fuel oil		RIVU34	593,270	2,960,620	298	90.8	16.0	4.88	263.0	401.5	88.1	26.9	652.0	82.15	NO	Yes	No
0990332	New Hope Power Partnership (Okeelanta)																	

TABLE D-5
SUMMARY OF PM_{10} SOURCES INCLUDED IN THE AAQS AND PSD CLASS II MODELING ANALYSES

Facility ID	Facility Name / Emission Unit Description	EU ID	AERMOD ID Name	UTM Location X (m)	UTM Location Y (m)	Stack Parameters: Height ft	Height m	Diameter ft	Diameter m	Temperature °F	Temperature K	Velocity ft/s	Velocity m/s	PM_{10} Emission Rate 24-Hour (lb/hr)	24-Hour (g/sec)	PSD Source? [a] (EXP/CON)	Modeled In AAQS	Modeled In Class II
	Okeelanta Power Blrs 1,2,3 [b]		OKCOGENF	524,920	2,939,440	199.0	60.7	10.0	3.05	352.0	450.9	67.7	20.63	64.50	8.13	CON	Yes	Yes
0990005	Okeelanta [a]																	
	Boiler 4 PSD Baseline	--	OKBLR4B	524,700	2,939,500	75.0	22.9	7.5	2.29	139.7	333.0	24.1	7.36	-55.32	-6.97	EXP	No	Yes
	Boiler 5 PSD Baseline	--	OKBLR5B	524,700	2,939,500	75.0	22.9	7.5	2.29	139.7	333.0	39.6	12.07	-70.79	-8.92	EXP	No	Yes
	Boiler 6 PSD Baseline	--	OKBLR6B	524,700	2,939,500	75.0	22.9	7.5	2.29	141.5	334.0	28.7	8.74	-77.70	-9.79	EXP	No	Yes
	Boiler 10 PSD Baseline	--	OKBLR10B	524,700	2,939,500	75.0	22.9	7.5	2.29	141.5	334.0	33.9	10.35	-85.32	-10.75	EXP	No	Yes
	Boiler 11 PSD Baseline	--	OKBLR11B	524,700	2,939,500	75.0	22.9	7.5	2.29	155.9	342.0	32.4	9.89	-83.57	-10.53	EXP	No	Yes
	Boilers 4-11 PSD baseline		OKBLRB	524,700	2,939,500	75.0	22.9	7.5	2.29	139.7	333.0	24.1	7.36	-372.70	-46.96	EXP	No	Yes
	Boiler 16 PSD [b]	--	OKBLR16	524,700	2,939,500	75.0	22.9	5.0	1.5	393.0	473.7	100.7	30.69	6.10	0.77	CON	Yes	Yes
0850001	FPL - Martin Power Plant																	
	Units 1&2	1-2	MART12	542,680	2,992,650	499.0	152.1	26.2	8.0	338.0	443.2	68.7	20.94	1808.00	227.81	NO	Yes	No
	Units 3&4	3-6	MART34	542,680	2,992,650	213.0	64.9	20.0	6.1	280.0	410.9	62.0	18.90	242.40	30.54	CON	Yes	Yes
	Aux Boiler	7	MARTAUX	542,680	2,992,650	60.0	18.3	3.6	1.1	504.1	535.4	50.0	15.24	0.10	0.01	CON	Yes	Yes
	Diesel Genarator	9	MARTGEN	542,680	2,992,650	25.0	7.6	1.0	0.3	955.0	785.9	130.0	39.62	2.13	0.27	CON	Yes	Yes
	Unit 8 (EUs 11, 12, 17, &18)	--	MART8OIL	542,680	2,992,650	120.0	36.6	19.0	5.8	296.3	420.0	73.5	22.40	148.00	18.65	CON	Yes	Yes
0510003	U.S. Sugar Clewiston Mill and Refinery																	
	<u>On-crop season</u> [c]																	
	Boiler No. 1	001	USSBLR1N	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	123.9	15.61	CON	Yes	Yes
	Boiler No. 2	002	USSBLR2N	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	111.8	14.08	CON	Yes	Yes
	Boiler No. 4	009	USSBLR4N	506,100	2,956,900	150.0	45.72	8.2	2.50	160.0	344.3	88.7	27.04	90.0	11.34	CON	Yes	Yes
	Boiler No. 7	014	USSBLR7N	506,100	2,956,900	225.0	68.58	8.0	2.44	335.0	441.5	94.5	28.80	22.1	2.79	CON	Yes	Yes
	Boiler No. 8	028	USSBLR8N	506,100	2,956,900	199.0	60.66	10.9	3.32	315.0	430.4	75.7	23.07	26.9	3.39	CON	Yes	Yes
	<u>Off-crop season</u> [c]																	
	Boiler No. 1	001	USSBLR1F	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	123.9	15.61	CON	Yes	Yes
	Boiler No. 2	002	USSBLR2F	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	111.8	14.08	CON	Yes	Yes
	Boiler No. 4	009	USSBLR4F	506,100	2,956,900	150.0	45.72	8.2	2.50	160.0	344.3	88.7	27.04	90.0	11.34	CON	Yes	Yes
	<u>Baseline (on-crop)</u> [c]																	
	Boiler No. 1	001	USSBLR1B	506,100	2,956,900	75.8	23.10	6.1	1.86	160.0	344.3	99.0	30.18	-59.4	-7.48	EXP	No	Yes
	Boiler No. 2	002	USSBLR2B	506,100	2,956,900	75.8	23.10	6.1	1.86	158.0	343.2	117.0	35.66	-55.9	-7.04	EXP	No	Yes
	Boiler No. 3	003	USSBLR3B	506,100	2,956,900	90.0	27.43	7.5	2.29	156.0	342.0	48.2	14.69	-28.5	-3.59	EXP	No	Yes
	East Pellet Plant		EPELLET	506,100	2,956,900	40.0	12.19	5.0	1.52	165.0	347.0	28.0	8.53	-13.4	-1.69	EXP	No	Yes
	West Pellet Plant		WPELLET	506,100	2,956,900	51.5	15.70	5.0	1.52	165.0	347.0	28.0	8.53	-6.5	-0.82	EXP	No	Yes
	<u>Sugar Refinery Sources</u>																	
	Vacuum Systems S-1	018	S1	506,100	2,956,900	65.0	19.81	0.50	0.15	68.0	293.2	0.033	0.01	0.06	0.008	CON	Yes	Yes
	Vacuum Systems S-2	018	S2	506,100	2,956,900	65.0	19.81	0.50	0.15	90.0	305.4	0.033	0.01	0.06	0.008	CON	Yes	Yes
	Vacuum Systems S-3	018	S3	506,100	2,956,900	65.0	19.81	0.50	0.15	90.0	305.4	0.033	0.01	0.06	0.008	CON	Yes	Yes
	Packaging S-4	022	S4	506,100	2,956,900	60.0	18.29	1.94	0.59	125.0	324.8	0.033	0.01	0.21	0.026	CON	Yes	Yes
	Screning and Distribution S-5	020	S5	506,100	2,956,900	72.0	21.95	0.95	0.29	125.0	324.8	0.033	0.01	0.06	0.008	CON	Yes	Yes
	Screening and Distribution S-6	020	S6	506,100	2,956,900	72.0	21.95	1.94	0.59	125.0	324.8	0.033	0.01	0.19	0.024	CON	Yes	Yes
	Conditioning Silos S-7	019	S7	506,100	2,956,900	130.0	39.62	1.37	0.42	110.0	316.5	0.033	0.01	0.06	0.008	CON	Yes	Yes
	Conditioning Silos S-8	019	S8	506,100	2,956,900	130.0	39.62	1.37	0.42	110.0	316.5	0.033	0.01	0.06	0.008	CON	Yes	Yes
	Conditioning Silos S-9	019	S9	506,100	2,956,900	130.0	39.62	1.37	0.42	110.0	316.5	0.033	0.01	0.06	0.008	CON	Yes	Yes
	White Sugar Dryer No. 1: S-10	016	S10	506,100	2,956,900	10.0	3.05	4.79	1.46	115.0	319.3	0.033	0.01	1.43	0.180	CON	Yes	Yes
	V.H.P. Sugar Dryer S-11	015	S11	506,100	2,956,900	75.0	22.86	7.31	2.23	115.0	319.3	0.033	0.01	1.63	0.205	CON	Yes	Yes
	Granular Carbon Furnace S-12	017	S12	506,100	2,956,900	30.0	9.14	2.00	0.61	160.0	344.3	22.8	6.95	0.63	0.079	CON	Yes	Yes
	White Sugar Dryer No. 2: S-13	029	S13	506,100	2,956,900	80.0	24.38	7.31	2.23	90.0	305.4	0.033	0.01	4.20	0.529	CON	Yes	Yes
	<u>Sugar Mill Sources</u>																	
	BT-13 Lime Silo #1	031	BT3LS1	506,100	2,956,900	65.0	19.81	0.67	0.20	75.0	297.0	0.033	0.01	0.08	0.010	CON	Yes	Yes
	BT-13 Lime Silo #2	031	BT3LS2	506,100	2,956,900	65.0	19.81	0.67	0.20	75.0	297.0	0.033	0.01	0.08	0.010	CON	Yes	Yes
	BT-13 Lime Railcar Receiver	031	BT3LRR	506,100	2,956,900	65.0	19.81	0.67	0.20	75.0	297.0	0.033	0.01	0.08	0.010	CON	Yes	Yes
	Molasses Plant Salt Silo		MOLSALTS	506,100	2,956,900	30.0	9.14	0.67	0.20	75.0	297.0	0.033	0.01	0.13	0.016	CON	Yes	Yes
	Molasses Plant Limestone Silo	030	MOLLSS	506,100	2,956,900	40.0	12.19	0.67	0.20	75.0	297.0	0.033	0.01	0.13	0.016	CON	Yes	Yes
	Water Treatment Lime Silo	010	WWTPLS	506,100	2,956,900	40.0	12.19	0.67	0.20	75.0	297.0	0.033	0.01	0.13	0.016	CON	Yes	Yes

TABLE D-5

SUMMARY OF PM_{10} SOURCES INCLUDED IN THE AAQS AND PSD CLASS II MODELING ANALYSES

Facility ID	Facility Name Emission Unit Description	EU ID	AERMOD ID Name	UTM Location X (m)	UTM Location Y (m)	Stack Parameters Height ft	Height m	Diameter ft	Diameter m	Temperature °F	Temperature K	Velocity ft/s	Velocity m/s	PM_{10} Emission Rate 24-Hour (lb/hr)	24-Hour (g/sec)	PSD Source? [a] (EXP/CON)	Modeled In AAQS	Modeled In Class II
0110037	Florida Power & Light (PFL) - Fort Lauderdale																	
	CTs 1-4 PSD		LAUDU45	579,390	2,883,360	150	45.7	18.0	5.5	330.0	438.7	158.7	48.37	232.00	29.2	CON	Yes	Yes
	GT 1-12 (0.5% fuel oil)		LDGT1_12	579,390	2,883,360	45	13.7	15.6	4.8	860.0	733.2	93.3	28.44	65.00	8.2	NO	Yes	No
	GT 13-24 (0.5% fuel oil)		LDGT1324	579,390	2,883,360	45	13.7	15.6	4.8	860.0	733.2	93.3	28.44	65.00	8.2	NO	Yes	No
	4&5 PSD Baseline		FTLAU45B	579,390	2,883,360	150	45.7	14.0	4.3	299.9	422.0	48.0	14.63	-32.17	-4.1	EXP	No	Yes
0110036	FPL - Port Everglades Plant																	
	Units 1&2 at 2.5%s fuel oil		PTEVU12	587,400	2,885,300	342.8	104.5	14.0	4.27	289.0	415.9	87.7	26.72	144.0	18.1	NO	Yes	No
	Units 3&4 at 2.5%s fuel oil		PTEVU34	587,400	2,885,300	342.8	104.5	18.1	5.52	287.0	414.8	78.3	23.88	836.0	105.3	NO	Yes	No
	GT 1-12 (0.5% fuel oil)		PTEVGTS	587,400	2,885,300	44.0	13.4	15.6	4.75	860.1	733.2	93.3	28.43	60.7	7.6	NO	Yes	No
0610029	Vero Beach Power																	
	Unit 1	1	VERBU1	561,400	3,056,500	200.0	61.0	3.5	1.1	289	415.9	105.5	32.16	15.9	2.0	NO	Yes	No
	Unit 2	2	VERBU2	561,400	3,056,500	200.0	61.0	3.5	1.1	347	448.2	137.2	41.82	27.5	3.5	NO	Yes	No
	Unit 3	3	VERBU3	561,400	3,056,500	200.0	61.0	7.3	2.2	342	445.4	46.3	14.11	123.0	15.5	NO	Yes	No
	Unit 4	4	VERBU4	561,400	3,056,500	200.0	61.0	7.0	2.1	283	412.6	77.7	23.68	68.5	8.6	CON	Yes	Yes
	Unit 5 Simple Cycle CT	5	VERBU5	561,400	3,056,500	125.0	38.1	11.0	3.4	410	483.2	82.1	25.02	11.4	1.4	CON	Yes	Yes

Note: EXP = PSD expanding source.
CON = PSD consuming source.
NO = Baseline Source, assuming potential baseline emissions are the same as current actual emissions.

[a] Facilities or sources within facilities that operate only during the October 1 through April 31 crop season. For sources identified operating during off-crop season, the season is May through September.

[b] Sugar mill sources that operate all year.

[c] Facility-wide SO_2 emission limit of 14 tons/day (1,166,7) lb/hr). Only Boilers 1 and 4 operate during off-crop season.

[d] Fugitive source modeled as a single surface-based volume source with 200 ft sides and 15 ft height (release height 7.5 ft) and with initial sigma y and sigma z values of 14.18 m and 2.13 m, respectively.

[e] Fugitive source modeled as a line source (represented by separated volume sources with 30 ft sides and 18 ft height) and with initial sigma y and sigma z values of 8.37 m and 2.55 m, respectively.

[f] Emission calculation for Palm Beach Aggregates, see Appendix D.

[g] Emission calculation for SFWMD Pump Station No. S-5A, see Appendix D.

[h] Facility is shutdown with the permit still in existence. Modeled only in AAQS analysis.

[i] Facility is shutdown and the operating permit is withdrawn. Not modeled in AAQS analysis. Only baseline emissions units modeled in the increment analysis.

[j] Each cell modeled as a single point source. Locations provided for the first cell.

[k] Sources operated from November through March.

TABLE FPL-A
FUEL USAGE AND CAPACITY FACTORS FOR FPL OPERATING PLANTS/UNITS
TURKEY POINT, PORT EVERGLADES AND RIVIERA PLANTS; 1976/77 AND 2005/06

	Turkey Point Units 1 and 2	Port Everglades Units 1-4	Riviera Units 3 and 4	Martin[a] Units 1 and 2	All Units [c]
1976/77					
Heat Input					
Oil (MMBtu/yr)	28,376,174	45,435,718	12,810,796	a	
Gas (MMBtu/yr)	13,480,626	19,166,225	16,444,384	a	
Total	41,856,799	64,601,942	29,255,179	a	
Capacity Factor	65.10%	64.20%	58.90%	a	
Maximum Sulfur Content	1.00%	1.00%	1.00%	0.70%	
Average Sulfur Content	0.97%	0.99%	0.98%	a	
Annual SO_2 (tons/yr) [d]	14,660	23,958	6,740	60,619	
Annual SO_2 (lb/hr)	3,347	5,470	1,539	13,840	
Peak to Mean 2005/2006 (24-hr) [b]	3.35	3.19	2.83	2.59	2.97
Calculated Max. 24-hr SO_2 (lb/hr)	11,199	17,447	4,356	a	
Peak to Mean 2005/2006 (3-hr) [b]	3.89	3.69	3.20	3.52	3.59
Calculated Max. 3-hr SO_2 (lb/hr)	13,022	20,160	4,928	a	
Potential Maximum SO_2 Emissions (lb/hr)	8,800	13,860	6,710	13,840	
Estimated Baseline SO_2 Emissions (lb/hr)					
24-hr	8,800	13,860	4,356	13,840	
3-hr	8,800	13,860	4,928	13,840	
2005/2006 (Acid Rain Data)					
Annual SO_2 (tons/yr)	9,098	15,062	7,888	14,891	
Annual SO_2 (lb/hr)	2,077	3,439	1,801	3,400	10,717
Max. 24-hr SO_2 (lb/hr)	6,949.7	10,969	5,098	8,817	31,833
Max. 3-hr SO_2 (lb/hr)	8,081.0	12,675	5,767	11,960	38,483
Change in SO_2 (tons/yr) from Baseline	-5,563	-8,896	1,148	-45,728	-59,039
Change in SO_2 (lb/hr) from Baseline[c]					
24-hr	-1,850	-2,891	742	-5,023	-9,023
3-hr	-719	-1,185	839	-1,880	-2,945

[a] Martin Units 1 and 2 Commenced Construction prior to the major source baseline date of January 1975.
Martin Units 1 and 2 are Subpart D units with an emission rate of 0.8 lb/MMBtu.

[b] Peak to mean ratio based ratio of max. 3-hr or 24-hr SO_2 (lb/hr)/two-year average annual SO_2 (lb/hr) from 2005/2006 CEMS.

[c] Change from the lower value of potential maximum or calculated max. emissions in baseline and maximum 24-hour in 2005/2006.

[d] Based on average fuel oil usage and sulfur content for 1976 and 1977 using AP-42 emission factor (lb/1,000 gal) of 157 x sulfur content.

TABLE FPL-B
FUEL USAGE AND CAPACITY FACTORS FOR FPL PLANTS/UNITS NOT OPERATING ON RESIDUAL OIL; CUTLER, FORT MYERS, LAUDERDALE AND RIVIERA PLANTS

	Cutler[a] Units 4-6	Fort Myers[b] Units 1 and 2	Lauderdale[b] Units 4 and 5	Riviera[c] Units 1 and 2	All Units
1976/77					
Heat Input					
Oil (MMBtu/yr)	494,794	25,813,955	4,646,184	635,762	
Gas (MMBtu/yr)	3,925,994	0	7,033,971	758,631	
Total	4,420,788	25,813,955	11,680,155	1,394,393	
Capacity Factor	20.80%	59.80%	45.55%	10.23%	
Maximum Sulfur Content	1.00%	2.50%	1.00%	1.00%	
Average Sulfur Content	0.97%	1.63%	0.99%	0.99%	
Annual SO_2 (tons/yr) [e,f]	507	22,269	2,452	676	
Annual SO_2 (lb/hr)	116	5,084	560	154	
Peak to Mean 2005/2006 (24-hr)[d]	2.97	2.97	2.97	2.97	
Calculated Max. 24-hr SO_2 (lb/hr)	344	15,102	1,663	458	
Peak to Mean 2005/2006 (3-hr)[d]	3.59	3.59	3.59	3.59	
Calculated Max. 3-hr SO_2 (lb/hr)	416	18,257	2,011	554	
Modeled Baseline SO_2 Emissions (lb/hr)	NA	15,234	3,627	NA	
Estimated Baseline 24-hr SO_2 Emissions (lb/hr)	344	15,102	1,663	458	
Difference: Modeled & Estimated (lb/hr)	NA	-132	-1,964	NA	
Estimated Baseline 3-hr SO_2 Emissions (lb/hr)	416	15,234	2,011	554	
Difference: Modeled & Estimated (lb/hr)	NA	0	-1,616	NA	
Change from Baseline					
Heat Input- Oil (MMBtu/yr)	-494,794	-25,813,955	-4,646,184	-635,762	
Change in SO_2 (tons/yr) from Baseline	-507	-22,269	-2,452	-676	-25,904
Change in 24-hr SO_2 (lb/hr) from Baseline	-344	-15,102	-1,663	-458	-17,568
Change in 3-hr SO_2 (lb/hr) from Baseline	-416	-15,234	-2,011	-554	-18,215
PSD Potential Modeled SO_2 Emissions (lb/hr)	NA Gas Only	NA Gas Only	2,152	NA	
PSD Actual 24-hr SO_2 Emissions (lb/hr)	NA	NA	399	NA	
Difference: Modeled & Actual (lb/hr)			-1,753		

[a] Units 5 and 6 operate only on gas for system stability in 2005/2006.

[b] Boilers dismantled; electric turbines repowered with combustion turbines.

[c] Boilers dismantled.

[d] Weighted average of existing steam units based on Acid Rain Data; See Table A.

[e] For Cutler and Riviera, annual emissions based on 1976 only since units did not operate in 1977.

[f] Based on average fuel oil usage and sulfur content for 1976 and 1977 using AP-42 emission factor (lb/1,000 gal) of 157 x sulfur content.

TABLE PBA-1
POTENTIAL PARTICULATE MATTER EMISSIONS SUMMARY
PALM BEACH AGGREGATES, INC.

Process Segments (SCC)	Emission Point	SCC Code	Process Rate [a] (TPY)	Emission Factor (lb/ton)	Reference	Control [b] (%)	Multiplier (Number of operations)	Annual Operation (hr/yr)	PM_{10} Emissions rate (lb/hr)	PM_{10} Emissions rate (TPY)
EU-001: Limestone Quarry, Product Loadout, and Road Traffic										
	Truck Loading	3-05-020-06	10,000,000	0.000046	AP-42 Table 11.19.2-2, August 2004	0	2	8,760	0.105	0.46
	Truck Unloading & Loading	3-05-020-31	10,000,000	0.000016	AP-42 Table 11.19.2-2, August 2004	0	1	8,760	0.018	0.08
	Mining/quarrying activities	3-05-020-10	10,000,000	0.00008	AP-42 Table 11.19.2-2, August 2004	0	2	8,760	0.183	0.80
	Unpaved Road Traffic				From Table PBA-3				2.766	8.13
								Total =	3.072	9.47
EU-002: Stationary Crushing and Screening Operation										
	Primary Crushing	3-05-030-03	10,000,000	0.0024	AP-42 Table 11.19.2-2, August 2004	98	1	8,760	0.055	0.24
	Secondary Crushing	3-05-030-03	10,000,000	0.0024	AP-42 Table 11.19.2-2, August 2004	98	1	8,760	0.055	0.24
	Screening of Aggregate	3-05-020-02	10,000,000	0.0087	AP-42 Table 11.19.2-2, August 2004	98	5	8,760	0.993	4.35
	Transfer of Aggregate				From Table PBA-4				2.262	5.47
	Screening Plant/sand-fill stockp	3-05-020-02	10,000,000	0.0087	AP-42 Table 11.19.2-2, August 2004	98	1	8,760	0.199	0.87
								Total =	3.563	11.17
EU-003: Mobile Crushing Operation										
	Primary Crushing	3-05-030-03	10,000,000	0.0024	AP-42 Table 11.19.2-2, August 2004	98	1	8,760	0.055	0.24
	Transfer of Aggregate				From Table PBA-4				0.754	1.82
	Crushed Rock Stockpile				From Table PBA-5				0.106	0.06
								Total =	0.914	2.12

Note: According to Permit 0990348-004AC, raw rocks are either processed at the mobile crushing operation or hauled to the stationary crushing and screening operation.

[a] From permit No. 0990348-004AC.

[b] From Technical Evaluation for permit No. 0990348-004AC.

TABLE PBA-2
ESTIMATED ACTUAL PARTICULATE MATTER EMISSIONS SUMMARY
PALM BEACH AGGREGATES, INC.

Process Segments (SCC)	Emission Point	SCC Code	Process Rate [a] (TPY)	Emission Factor (lb/ton)	Reference	Control [b] (%)	Multiplier (Number of operations)	Annual Operation (hr/yr)	PM_{10} Emissions rate (lb/hr)	(TPY)
EU-001: Limestone Quarry, Product Loadout, and Road Traffic										
	Truck Loading	3-05-020-06	5,814,011	0.000046	AP-42 Table 11.19.2-2, August 2004	0	2	8,760	0.061	0.27
	Truck Unloading & Loading	3-05-020-31	3,456,468	0.000016	AP-42 Table 11.19.2-2, August 2004	0	1	8,760	0.006	0.03
	Mining/quarrying activities	3-05-020-10	3,456,468	0.00008	AP-42 Table 11.19.2-2, August 2004	0	2	8,760	0.063	0.28
	Unpaved Road Traffic				From Table PBA-3				1.269	3.73
								Total =	1.399	4.30
EU-002: Stationary Crushing and Screening Operation										
	Primary Crushing	3-05-030-03	3,456,468	0.0024	AP-42 Table 11.19.2-2, August 2004	98	1	8,760	0.019	0.08
	Secondary Crushing	3-05-030-03	3,456,468	0.0024	AP-42 Table 11.19.2-2, August 2004	98	1	8,760	0.019	0.08
	Screening of Aggregate	3-05-020-02	3,456,468	0.0087	AP-42 Table 11.19.2-2, August 2004	98	5	8,760	0.343	1.50
	Transfer of Aggregate				From Table PBA-4				0.782	1.89
	Screening Plant/sand-fill stockp	3-05-020-02	2,357,543	0.0087	AP-42 Table 11.19.2-2, August 2004	98	1	8,760	0.047	0.21
								Total =	1.210	3.76
EU-003: Mobile Crushing Operation										
	Primary Crushing	3-05-030-03	2,273,570	0.0024	AP-42 Table 11.19.2-2, August 2004	98	1	8,760	0.012	0.055
	Transfer of Aggregate				From Table PBA-4				0.171	0.41
	Crushed Rock Stockpile				From Table PBA-5				0.106	0.06
								Total =	0.290	0.53

Note: According to Permit 0990348-004AC, raw rocks are either processed at the mobile crushing operation or hauled to the stationary crushing and screening operation.

[a] From 2006 AOR.

[b] From Technical Evaluation for permit No. 0990348-004AC.

TABLE PBA-3
ESTIMATION OF PM EMISSION FACTORS AND RATES
FOR TRUCKS ON UNPAVED ROADS
PROJECT: WCEC UNIT 3 - PALM BEACH AGGREGATES

Parameters		**Potential Emissions Haul Trucks within Quarry**	**Actual Emissions Haul Trucks within Quarry**
Vehicle Data			
Vehicle weight (W), (tons)[a]	Unloaded	12.5	12.5
	Capacity	20.0	20.0
	Loaded	32.5	32.5
	Average (tons)	22.5	22.5
Operating time, hours[b]	Daily	24	24
days	Annual	365	365
Basis for vehicle miles traveled (VMT)[c]			
Number of vehicles	Hourly	57	26
	Daily	1370	628
	Annual	500,000	229,358
Distance traveled/vehicle/route	Per trip (mile)	1.6	1.6
VMT (no. vehicles x mile traveled per trip)	Daily	2,192	1,005
	Annual	800,000	366,972
General/ Site Characteristics			
Days of precipitation greater than or equal to 0.254 mm (p)	Daily	0	0
	Annual	120	120
Silt content (s)[d] (%)		1.6	1.6
Particle size multiplier (lb/VMT)	k (PM)	4.9	4.9
	k (PM10)	1.5	1.5
Coefficients for silt content- PM	a	0.7	0.7
	b	0.45	0.45
Coefficients for silt content- PM10	a	0.9	0.9
	b	0.45	0.45
Emission Control Data			
Emission control method		Watering	Watering
Emission control removal efficiency[e], (%)		95	95
Emission Factor (EF) Equation[f]			
Uncontrolled EF (UEF) Equation	UEF(lb/VMT) = k (lb/VMT) x (s/12)a x (W)/3)b x [(365 - p)/365]		
Controlled EF (CEF) Equation	CEF(lb/VMT) = UEF (lb/VMT) x (100 - Removal efficiency (%))		
Calculated PM Emission Factor (EF)			
Uncontrolled EF, lb/VMT	Short term	2.96	2.96
	Annual	1.99	1.99
Controlled EF, lb/VMT	Short term	0.15	0.15
	Annual	0.10	0.10
Calculated PM10 Emission Factor (EF)			
Uncontrolled EF, lb/VMT	Short term	0.61	0.61
	Annual	0.41	0.41
Controlled EF, lb/VMT	Short Term	0.03	0.03
	Annual	0.02	0.02
Estimated Emission Rate (ER)			
PM ER lb/hr (based on daily rate)		13.5	6.2
TPY		39.7	18.2
PM10 ER lb/hr (based on daily rate)		2.77	1.27
TPY		8.1	3.7

Source: USEPA, 2006 (AP-42, Section 13.2.2 Unpaved Roads).

[a] Estimate for a typical quarry truck.
[b] Operating hours assumed to be 10 hrs/day.
[c] Vehicle mile travelled data from 2006 AOR used in calculation.
[d] AP-42 Table 13.2.4-1, Typical Silt and moisture Content of materiala at various industries (crushed limestone).
[e] Control efficiency based on technical evaluation of permit No. 0990348-004AC (Palm Beach Aggregates, Inc.).
[f] AP-42 emission factor provides emission factor as pounds per vehicle mile traveled (lb/VMT).

TABLE PBA-4
ESTIMATION OF PM EMISSION FACTORS AND RATES
FROM BATCH/CONTINUOUS DROP OPERATIONS AT TRANSFER OPERATIONS
PROJECT: WCEC UNIT 3 - PALM BEACH AGGREGATES

Parameters		Potential Emissions: Transfer Operations for Stationary Crushing & Screening Operations	Potential Emissions: Transfer Operations for Mobile Crushing Operation	Actual Emissions: Transfer Operations for Stationary Crushing & Screening Operations	Actual Emissions: Transfer Operations for Mobile Crushing Operation
Operational Data					
Operating time, hours [a]	Daily	24	24	24	24
days	Annual	365	365	365	365
Material Handling Data					
Material type		Limestone	Limestone	Limestone	Limestone
Material throughput[b]					
Tons/yr (tons/yr)	Annual	10,000,000	10,000,000	3,456,468	2,273,570
Mg/yr (megagrams/yr)	Annual	9,072,000	9,072,000	3,135,708	2,062,583
Mg/day (megagrams/day)	Daily	24,855	24,855	8,591	5,651
Moisture content (M)[c], % (nominal)		1.5	1.5	1.5	1.5
Number of transfers [c]		15	5	15	5
General/ Site Characteristics					
Mean wind speed (U) [d], m/s	Daily	6.3	6.3	6.3	6.3
	Annual	4.0	4.0	4.0	4.0
Particle size multiplier	k (PM)	0.74	0.74	0.74	0.74
Particle size multiplier	k (PM10)	0.35	0.35	0.35	0.35
Emission Control Data					
Emission control method		None	None	None	None
Emission control removal efficiency [c], %		98	98	98	98
Emission Factor (EF) Equations					
Uncontrolled EF (UEF) Equation	UEF (kg/Mg) = k x (0.0032) x $(U / 2.2)^{1.3}$)/[$(M / 2)^{1.4}$]				
Controlled EF (CEF) Equation	CEF (kg/Mg) = UEF (lb/ton) x [100% - Removal efficiency (%)]				
Calculated PM Emission Factor (EF)					
Uncontrolled EF, kg/Mg	Short term	0.006983	0.006983	0.006983	0.006983
	Annual	0.003853	0.003853	0.003853	0.003853
Controlled EF, kg/Mg	Short term	0.000140	0.000140	0.000140	0.000140
	Annual	0.000077	0.000077	0.000077	0.000077
Calculated PM10 Emission Factor (EF)					
Uncontrolled EF, kg/Mg	Short term	0.003303	0.003303	0.003303	0.003303
	Annual	0.001822	0.001822	0.001822	0.001822
Controlled EF, kg/Mg	Short term	0.000066	0.000066	0.000066	0.000066
	Annual	0.000036	0.000036	0.000036	0.000036
Estimated Emission Rate (ER)					
PM ER	kg/hr (daily basis)	2.17	0.72	0.75	0.16
	tonnes/yr	10.49	3.50	3.62	0.79
PM10 ER	kg/hr (daily basis)	1.03	0.34	0.35	0.08
	tonnes/yr	4.96	1.65	1.71	0.38
PM ER	lb/hr (daily basis)	4.78	1.59	1.65	0.36
	tons/yr	11.56	3.85	4.00	0.88
PM10 ER	lb/hr (daily basis)	2.26	0.75	0.78	0.17
	tons/yr	5.47	1.82	1.89	0.41

Source: USEPA, 1995; AP-42, Section 13.2.4 for Aggregate Handling and Storage Piles.

[a] Operating hours assumed to be 10 hrs/day.
[b] Throughput from Permit No. 0990348-004AC.
[c] From Technical evaluation of Permit No. 0990348-004AC (Palm beach Aggregates, Inc.).
[d] Based on wind data from West Palm Beach International Airport from 2001.

TABLE PBA-5
ESTIMATION OF PM EMISSION FACTORS AND RATES
FOR WIND EROSION FROM ACTIVE STORAGE PILES
PROJECT: WCEC UNIT 3 - PALM BEACH AGGREGATES

Parameters		Wind Erosion - Crushed Rock Stockpile
Emission Point/Area		WE1
Storage Pile Data		
Material Type		Limestone
Pile Description (shape)		Varied
Average Pile Height (m) [a]		6
Average Pile Length (m) [a]		100
Average Pile Width (m) [a]		100
No. Piles [a]		5
Size, m^2		50,000
Size, hectares		5.00
General/ Site Characteristics		
Days of precipitation greater than or equal to 0.25 mm (p)	Daily	0
	Annual	100
Time (%) that unobstructed wind speed exceeds 5.4 m/s at mean pile height [b] (f)	Daily	71
	Annual	30
Silt content (s)[c], %		1.6
Particle size multiplier, PM (k)		1.00
Particle size multiplier, PM10 (k)		0.50
Emission Control Data[d]		
Emission control method		Water Spray Systems
Emission control removal efficiency, %		98
Emission Factor (EF) Equation		
Uncontrolled EF (UEF) Equation	UEF (kg/day/hectare) = k x 1.9 x (s/1.5) x ((365 - p)/235) x (f/15)	
Controlled (Final) EF (CEF) Equation	CEF (kg/day/hectare) = UEF (kg/day/hectare) x (100 - Removal efficiency (%))	
Calculated PM Emission Factor (EF)		
Uncontrolled EF, kg/day/hectare	Short term	14.90
	Annual	4.57
Controlled EF, kg/day/hectare	Short term	0.30
	Annual	0.09
Calculated PM10 Emission Factor (EF)		
Uncontrolled EF, kg/day/hectare	Short term	4.80
	Annual	1.47
Controlled EF, kg/day/hectare	Short term	0.10
	Annual	0.03
Estimated Emission Rate (ER)		
PM ER kg/hr (daily basis)		0.15
tonnes/yr		0.17
PM10 ER kg/hr (daily basis)		0.05
tonnes/yr		0.05
PM ER lb/hr (daily basis)		0.33
tons/yr		0.18
PM10 ER lb/hr (daily basis)		0.11
tons/yr		0.06

Source: USEPA, 1992 (Fugitive Dust Background and Technical Information Document for Best Available Control Measures, Section 2.3.1.3.3, Wind Emissions from Continuously Active Piles)

[a] Estimated pile dimension.

[b] Based on wind data from West Palm Beach International Airport from 2001.

[c] AP-42 Table 13.2.4-1, Typical Silt and moisture Content of materiala at various industries (crushed limestone).

[d] From Technical evaluation of Permit No. 0990348-004AC (Palm beach Aggregates, Inc.).

TABLE PS-S5A-1
POTENTIAL AND ESTIMATED ACTUAL SO_2 AND PM_{10} EMISSIONS SUMMARY
SFWMD PUMP STATION S-5A

Parameter	Value	Units	Reference/Comments
Operations			
Maximum Heat Input Rate (1 engine)	11.2	MMBtu/hr	Permit No. 0990349-004AV
Maximum Permitted Heat Input (all 6 engines)	155,880	MMBtu/yr	Permit No. 0990349-004AV
Maximum Potential Heat Input (all 6 engines)	588,672	MMBtu/yr	Based on 8,760 hrs/yr
Permitted Fuel Usage (all 6 engines)	1,113,429	gallons/yr	Based on permit limit for annual heat input; fuel heat content
2006 Actual Fuel Usage (all 6 engines)	213,830	gallons/yr	2006 Annual Operating Report (AOR)
2006 Actual Heat Input (all 6 engines)	29,936	MMBtu/yr	Based on 140,000 Btu/gal and 2006 AOR
Maximum Sulfur Content (S)	0.05	%	Permit No. 0990349-004AV
Fuel Heat Content	140,000	Btu/gal	Assumed for No. 2 fuel oil
SO_2 Emissions			
SO_2 Emission Factor	1.01 x S	lb/MMBtu	Table 3.4-1, AP-42, US EPA October 1996
Permitted Annual and Potential Daily Emissions			
Permitted Annual Emissions	7,871.9	lb/yr	Based on Annual Maximum Permitted Heat Input
Permitted-to-Potential Heat Input	26.5	%	Maximum permitted heat input/potential heat input
Days of Operation	97	days/yr	Days of continuous operation with all 6 engines
Potential Daily Emissions	81.4	lb/day	Based on days/yr operation
Potential Hourly Emissions	3.39	lb/hr	Based on 24 hrs/day operation
Actual Annual and Daily Emissions			
Actual Annual Emissions	1,511.8	lb/yr	Based on 2006 Actual Heat Input
Actual-to-Potential Fuel usage	19.2	%	2006 Actual fuel usage/potential fuel usage
Days of Actual Operation	70	days/yr	Estimated days of continuous operation for actual fuel usage
Actual Daily Emissions	21.6	lb/day	Based on days/yr operation
Actual Hourly Emissions	0.90	lb/hr	Based on 24 hrs/day operation
PM_{10} Emissions			
PM_{10} Emission Factor	0.0496	lb/MMBtu	Table 3.4-2, AP-42, US EPA October 1996.
Permitted Annual and Potential Daily Emissions			
Permitted Annual Emissions	7,731.6	lb/yr	Based on Annual Maximum Permitted Heat Input
Permitted-to-Potential Heat Input	26.5	%	Maximum permitted heat input/potential heat input
Days of Operation	97	days/yr	Days of continuous operation with all 6 engines
Potential Daily Emissions	80.0	lb/day	Based on days/yr operation
Potential Hourly Emissions	3.33	lb/hr	Based on 24 hrs/day operation
Actual Annual and Daily Emissions			
Actual Annual Emissions	1,484.8	lb/yr	Based on 2006 Actual Heat Input
Actual-to-Potential Fuel usage	19.2	%	2006 Actual fuel usage/potential fuel usage
Days of Actual Operation	70	days/yr	Estimated days of continuous operation for actual fuel usage
Actual Daily Emissions	21.2	lb/day	Based on days/yr operation
Actual Hourly Emissions	0.88	lb/hr	Based on 24 hrs/day operation

Source: Golder, 2007.

AIR POLLUTION CONSTRUCTION PERMIT

PALM BEACH COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH AND ENGINEERING
P.O. Box 29 (901 Evernia Street)
West Palm Beach, Florida 33402-0029
(561) 355-3136

ISSUED TO (PERMITTEE)

Palm Beach Aggregates
20125 State Road 80
Loxahatchee, FL 33470

Authorized Representative:
Darren Teets, Sales Manager

ARMS No.:	0990348
Permit No:	0990348-004-AC
Issued:	10-18-2004
Expires:	10-17-2009

LOCATED AT:

Palm Beach Aggregates - Loxahatchee Plant
20125 State Road 80
Loxahatchee, FL 33470

Limestone quarry and nonmetallic mineral processing plant.
SIC: 1442 and 1422
UTM: Zone 17 ; 563.0 km E ; 2952.0 km N

STATEMENT OF BASIS:

The Florida Department of Environmental Protection (DEP) has permitting jurisdiction for this project pursuant to Section 403.087 of the Florida Statutes (F.S.). However, in accordance with Section 403.182, F.S., the DEP recognizes the Palm Beach County Health Department (Health Department) as the approved local air pollution control program in Palm Beach County. As such, the DEP and the Health Department have entered into a Specific Operating Agreement that delegates the authority to issue or deny permits to the Health Department for this type of air pollution source located in Palm Beach County. Accordingly, the Health Department issues this permit under the provisions of Chapter 403, F.S. and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The permittee is authorized to perform the work for the proposed project in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Health Department.

ISSUED BY:

Executed in West Palm Beach, Florida.
PALM BEACH COUNTY HEALTH DEPARTMENT

James E. Stormer , Q.E.P., Environmental Administrator
Air Pollution Control Section
Division of Environmental Health and Engineering

Air Permit Engineer: Antoine Devonshire
Filename: 0348001.PMT.

SUMMARY INFORMATION

PERMIT HISTORY

- 08-07-2004: Palm Beach County Health Department deemed the construction permit application complete.
- 07-06-2004: Palm Beach County Health Department received application for construction permit
- 12-19-1996: The company was issued an initial, after-the-fact, air pollution construction permit

REGULATORY CLASSIFICATION

Title III: The facility is not a major source of hazardous air pollutants (HAPs)
Title IV: The facility will not operate units subject to the acid rain provisions of the Clean Air Act.
Title V: The facility is not a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
PSD: The facility is not a PSD major source in accordance with Rule 62-212.400 F.A.C.
RACT: The facility is not subject to any RACT requirements in accordance with guidance issued by the Florida Department of Environmental Protection.
NSPS: The facility is subject to the requirements of 40 CFR 60 Subpart OOO.
NESHAP:The facility is not subject to any requirements of 40 CFR 61.

This facility is classified as a non-Title V, minor source of air pollution. It is also categorized as a nonmetallic mineral processing plant subject to the New Source Performance Standards (NSPS) specified in 40 CFR 60, Subpart OOO.

RULE APPLICABILITY

The proposed project is subject to preconstruction review under the applicable provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.).. This facility is located in Palm Beach County, an area designated as "maintenance" for the pollutant ozone and attainment for all other criteria pollutants in accordance with Rule 62-204.340, F.A.C. The proposed project is not subject to review under Rule 62-212.400 F.A.C., Prevention of Significant Deterioration (PSD), because this source is considered "minor" for the purpose of PSD regulations (having a potential to emit less than 250 tons per year of pollutant). The proposed facility is subject to the following air pollution control provisions:

- **F.A.C. Chapter 62-4 - Permits.**
- *F.A.C. Rule 62-4.160 - General Permit Conditions.*
- **F.A.C. Chapter 62-204 - Air Pollution Control - General Provisions**
- F.A.C. Rule 62-204.800 - Federal Regulations Adopted by Reference
- *[NSPS Subpart OOO, Rule 62-204.800(7)(b)63., F.A.C.]*
- **F.A.C. Chapter 62-210 - Stationary Sources - General Requirements.**
- *F.A.C. Rule 62-210.300 - Permits Required.*
- *F.A.C. Rule 62-210.350 - Public Notice and Comment.*
- *F.A.C. Rule 62-210.370 - Reports.*
- *F.A.C. Rule 62-210.650 - Circumvention.*
- *F.A.C. Rule 62-210.700 - Excess Emissions.*
- **F.A.C. Chapter 62-212 - Stationary Sources - Preconstruction Review**
- *F.A.C. Rule 62-212.300 - General Preconstruction Review Requirements*
- **F.A.C. Chapter 62-296 - Stationary Sources - Emissions Standards**
- *F.A.C. Rule 62-296.320 - General Pollutant Emission Limiting Standards.*
- **F.A.C. Chapter 62-297 - Stationary Sources - Emissions Monitoring**
- *F.A.C. Rule 62-297.310 - General Test Requirements.*
- *F.A.C. Rule 62-297.400 - EPA Test Methods Adopted by Reference*

And the following New Source Performance Standard for Non-Metallic Mineral Processing

- specifically: New Source Performance Standard 40 CFR 60, Subpart OOO

SUMMARY INFORMATION

PERMIT CONTENT

SUMMARY INFORMATION

SUMMARY OF EMISSION UNIT

This permit addresses the following emissions units:

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
001	Limestone Quarry, Product Loadout, and Road Traffic
002	Stationary Crushing and Screening Operation
003	Mobile Crushing Operation

Palm Beach Aggregates owns and operates a limestone quarry and nonmetallic mineral processing plant at Loxahatchee, Palm Beach County, Florida. Raw rocks are mined from the quarry and either processed at the mobile crushing operation or hauled to the stationary crushing and screening operation. At the stationary operation, raw rock is processed through a series of crushing and screening equipment to achieve the desired aggregate and sand gradations. The mobile operation crushes raw rock to a stockpile for loading directly to customer trucks. All aggregates and sands are stored in open stockpiles until loadout. All vehicles travel on unpaved roads.

EMISSIONS UNIT LIST

EMISSION UNIT NO.	EMISSIONS UNIT DESCRIPTION
001	**Limestone Mining in Quarry, Product Loadout, and Road Traffic:** These activities generate fugitive, unconfined particulate emissions which are subject to Rule 62-296.320(4)(c), F.A.C.
002	**Stationary Crushing and Screening Operation:** Fugitive particulate matter is emitted from crushing, screening, stockpiles, and the transfer points of belt conveyors, crushers, grinding mills, screening operations, bucket elevators, storage bins, and loading stations. The affected transfer points are subject to 40 CFR 60, Subpart OOO adopted and incorporated by reference in Rule 62-204.800(7)(b)63.
003	**Mobile Crushing Operation:** Fugitive particulate matter is emitted from the crushing, stockpiles, and the transfer points of belt conveyors, crushers, grinding mills, screening operations, bucket elevators, storage bins, loading stations. The affected transfer points are subject to 40 CFR 60, Subpart OOO adopted and incorporated by reference in Rule 62-204.800(7)(b)63.

- ☐ *There are no stacks associated with any transfer points of belt conveyors, crushers, grinding mills, screening operations, bucket elevators, storage bins, or loading stations.*
- ☐ *There are no rail car loading stations.*
- ☐ *There are no buildings which enclose any transfer point on the affected facilities.*
- ☐ *There are no crushers at this facility with capture systems.*
- ☐ *There are no wet scrubbers used to control particulate matter.*
- ☐ *Appendix F lists the current emissions points covered by this permit.*

1.0 ADMINISTRATIVE

1.1 Regulating Agencies: All applications, reports, tests, and notifications shall be submitted to the Air Pollution Control Section of the Palm Beach County Health Department (Health Department) at P.O. Box 29 (901 Evernia Street), West Palm Beach, Florida, 33402-0029, and telephone number (561) 355-3136. In addition, *copies* shall be submitted to the Air Program, Southeast District Office, Florida Department of Environmental Protection (DEP) at 400 North Congress Avenue, Suite 200, West Palm Beach, Florida, 33401. **[Specific Operating Agreement]**

1.2 General Conditions: The permittee shall be aware of, and operate under, the attached General Conditions listed in *Appendix A* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. **[Rule 62-4.160, F.A.C.]**

1.3 Citation Format: *Appendix B* of this permit provides the format for citing applicable regulations.

1.4 Application for Operation Permit: Within 60 days of establishing routine operations for the emissions units described in this permit, the permittee shall apply for an operation permit modification. The application shall include: the Short Form Application *[DEP Form No. 62-210.900(2)]* including certification by a Professional Engineer with Florida registration; the correct application fee; all test reports required by this permit; examples of record keeping requirements, including operation and maintenance logs; and a summary of any changes or substitutions to equipment, processes, fuels, controls, etc., that vary from the original application. **[Rule 62-210.900, F.A.C.]**

(a) The permittee may continue to operate the emissions units in compliance with the conditions of this construction permit during the application process for an operation permit. **[Rule 62-4.030, F.A.C.]**

(b) The permittee must maintain a valid (not expired) air construction permit during the entire application process for an operation permit. This construction permit may be extended at the written request of the permittee prior to its expiration. **[Rule 62-4.080(3), F.A.C.]**

1.5 Applicable Regulations: This facility is subject to the following regulations: Florida Administrative Code Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. **[Rule 62-210.300, F.A.C. and the SOA]**

2.0 EMISSION LIMITING STANDARDS

2.1 General Particulate Emission Limiting Standards: General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, the permittee shall not:

(1) Cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as No. 1 on the Ringelmann Chart (20 percent opacity). **[Rule 62-296.320(4)(b)1., F.A.C.]**

(2) If the presence of uncombined water is the only reason for failure to meet the visible emissions standards given in Rule 62-296.320(4)1, F.A.C., such failure shall not be a violation of the rule. **[Rule 62-296.320(4)(b)3, F.A.C.]**

(3) All visible emissions test performed pursuant to the requirements of Rule 62-296.320(b)(4)1, F.A.C. shall use EPA Reference Method 9, and shall meet all applicable requirements of Chapter 62-297, F.A.C. **[Rule 62-296.320(4)(b)1, F.A.C.]**

2.2 Notifications and Reports: The permittee shall submit all compliance-related notifications and reports required by this permit to the Palm Beach County Health Department and the Florida Department of Environmental Protection's (FDEP) Southeast District Office at:

Palm Beach County Health Department

Air Pollution Control Section
Post Office Box 29
West Palm Beach, Florida 33402-0029
Telephone: (561) 355-3136

Fax: (561) 804-9405

2.3 Objectionable Odors: Objectionable Odor Prohibited: The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. **[Rule 62-296.320(2), F.A.C.]**

Note: An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. ***[Rule 62-210.200(203), F.A.C.]***

2.4 General VOC Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions: The permittee shall allow no person to store, pump, handle, process, load, unload, or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. **[Rule 62-296.320(1)(a), F.A.C.]**

2.5 Unconfined Emissions of Particulate Matter: No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions include the following: **[Rule 62-296.320(4)(c), F.A.C. and Permit No. 099-0348 001-AC]**

- ☐ Paving and maintenance of roads, parking areas and yards.
- ☐ Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
- ☐ Application of asphalt, water, chemicals or other dust suppressants to unpaved roads, yards, open stockpiles and similar activities.
- ☐ Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
- ☐ Landscaping or planting of vegetation.
- ☐ Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
- ☐ Confining abrasive blasting where possible.
- ☐ Enclosure or covering of conveyor systems.

Note: Facilities that cause frequent, valid complaints will be required by the Health Department to take these or other reasonable precautions. In determining what constitutes reasonable precautions for a particular facility, the Health Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

3.0 PERFORMANCE STANDARDS

3.1 Circumvention: The permittee shall not circumvent air pollution control equipment/methods or allow the emission of air pollutants without the equipment/methods operating properly. **[Rule 62-210.650, F.A.C.]**

3.2 Excess Emissions Requirements:

(a) Excess emissions resulting from start-up, shutdown or malfunction of these emissions units shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period unless specifically authorized by the Health Department for longer duration. **[Rule 62-210.700(1), F.A.C.]**

(b) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown, or malfunction are prohibited. **[Rule 62-210.700(4), F.A.C.]**

(c) In case of excess emissions resulting from malfunctions, the permittee shall notify the Air Pollution Control Section of the Palm Beach County Health Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the problem; and the corrective actions being taken to prevent recurrence. **[Rule 62-210.700(6), F.A.C.]**

(d) Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust the maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest. **[Rule 62-210.700(5), F.A.C.]**

4.0 COMPLIANCE MONITORING REQUIREMENTS

4.1 Duration: Unless otherwise specified in this permit, all records and reports required by this permit shall be kept for at least 3 years from the date the information was recorded. **[Rule 62-4.160(14)(b), F.A.C.]**

4.2 Test Procedures: All test methods and procedures shall be performed in accordance with the applicable requirements of Chapter 62-297, F.A.C. **[Rule 62-297.100, F.A.C.]**

4.3 Operational Rate During Testing: Unless otherwise stated in the applicable emission limiting standard for a rule, testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. **[Rule 62-297.310(2), F.A.C.]**

4.4 Test Notification: At least 15 days prior to the date on which each formal compliance test is to begin, the permittee shall notify the Health Department in writing of: the test date; the expected test time; the location of the test; the facility contact person responsible for coordinating the test; and the person or company conducting test. The 15 day notification requirement may be waived at the discretion of the Health Department. Likewise, if circumstances prevent testing during the 60-day test window specified for the emissions unit, the owner or operator may request an alternate test date before the expiration of this window. **[Rule 62-297.310(7)(a)9., F.A.C.]**

4.6 Special Compliance Tests: When the Health Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a DEP rule or permit is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Health Department. **[Rule 62-297.310(7)(b), F.A.C.]**

5.0 REPORTS REQUIRED

5.1 Annual Operations Report: Before March 1st of each year, the owner or operator shall submit an Annual Operations Report *[DEP Form No. 62-210.900(5)]* to the Health Department which summarizes operations for the previous calendar year. **[Rule 62-210.370(3), F.A.C.]**

5.2 Excess Emissions Report: If excess emissions occur, the Health Department may request a written summary report of the incident. **[Rules 62-4.130 and 62-210.700(6), F.A.C.]**

5.3 Emission Compliance Test Reports: For each required emissions compliance test, a report indicating the results of the test shall be filed with the Health Department as soon as practical, but no later than 45 days after the last sampling run is completed. The report shall provide sufficient detail on the tested emissions unit and the procedures used to allow the Health Department to determine if the test was properly conducted and if the test results were properly computed. Additional report information may be specified for a given group of emissions units in this permit. **[Rule 62-297.310(8), F.A.C.]**

GROUP A. This portion of the permit addresses the following group of emissions units:

EMISSION UNIT NO.	EMISSIONS UNIT DESCRIPTION
001	**Limestone Mining in Quarry, Product Loadout, and Road Traffic:** These activities generate fugitive, unconfined particulate emissions which are subject to Rule 62-296.320(4)(c), F.A.C.
002	**Stationary Crushing and Screening Operation:** Fugitive particulate matter is emitted from crushing, screening, stockpiles, and the transfer points of belt conveyors, crushers, grinding mills, screening operations, bucket elevators, storage bins, and loading stations. The affected transfer points are subject to 40 CFR 60, Subpart OOO adopted and incorporated by reference in Rule 62-204.800(7)(b)63.
003	**Mobile Crushing Operation:** Fugitive particulate matter is emitted from the crushing, stockpiles, and the transfer points of belt conveyors, crushers, grinding mills, screening operations, bucket elevators, storage bins, loading stations. The affected transfer points are subject to 40 CFR 60, Subpart OOO adopted and incorporated by reference in Rule 62-204.800(7)(b)63.

Notes:

- *There are no stacks associated with any transfer points of belt conveyors, crushers, grinding mills, screening operations, bucket elevators, storage bins, or loading stations.*
- *There is no railcar loading stations.*
- *There are no buildings which enclose any transfer point on the affected facilities.*
- *There are no crushers at this facility with capture systems.*
- *There are no wet scrubbers used to control particulate matter.*
- *Appendix F lists the current emissions points covered by this permit*

1.0 OPERATING RESTRICTIONS

1.1 Process Rate: This facility shall not mine and process more than 10,000,000 tons of raw rock per consecutive 12 months, rolling total. **[Applicant Request]**

1.2 Unconfined Particulate Emissions: The owner or operator shall take the following reasonable precautions to prevent fugitive emissions of unconfined particulate matter: **[F.A.C. RULE 62-296.320(4)(c)]**

(a) All plant roads shall be watered as necessary.
(b) Screens at the stationary operation shall be enclosed.
(c) Spray bars at the screens shall be installed, maintained, and operated to completely wet the aggregate.

2.0 EMISSION LIMITING AND PERFORMANCE STANDARDS

2.1 Fugitive Emissions From Transfer Points: Fugitive emissions from transfer points on belt conveyors, grinding mills, screening operations, bucket elevators, storage bins, enclosed truck or railcar loading stations shall not exceed 10 percent opacity. **[40 CFR 60.672(e)(1)]**

2.2 Fugitive Emissions From Crushers: Fugitive visible emissions from crushers without capture systems shall not exceed 15 percent opacity. **[40 CFR 60.672(c)]**

2.3 Exemption For Truck Dumping: Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section. **[40 CFR 60.672(d)]**

3.0 TEST METHODS AND PROCEDURES

3.1 General Performance Test Procedures: Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. In conducting the performance tests for emissions points subject to an NSPS standard, the owner or operator shall also use the test methods defined in 40 CFR 60, Appendix A; the general performance test procedures for NSPS sources defined in 40 CFR 60.8 (see *Appendix D* of this permit), and any other methods and procedures as specified in this permit. **[40 CFR 60.675(a)]**

3.2 Testing Requirements: To demonstrate compliance with the fugitive visible emissions limiting standards in specific conditions 1.1 and 1.2 of this permit, the owner or operator shall have the following tests performed.

(a) During each federal fiscal year (October 1 – September 30), the owner or operator shall have EPA Method 9 conducted for each of the affected facilities subject to a specific emission limiting standard. Emission points are identified in Table F-1 in *Appendix F* of this permit. **[F.A.C. RULE 62-4.070(3)]**

(b) The Health Department shall be notified at least 30 days prior to the date on which each formal compliance test is to begin, of the test date, the expected test time, the location of the test, the facility contact person responsible for coordinating the test, and the person or company conducting test. **[40 CFR 60.7(6)]**

(c) The visible emissions tests shall be conducted for at least 30 minutes for each emissions point. The procedures identified in 40 CFR 60.11 shall be followed. *(See also Appendix D of this permit.)* **[F.A.C. Rule 62-297.310(4)(a)2]**

(d) The minimum distance between the observer and the emission source shall be (15) feet. **[40 CFR 60.675(c)(1)]**

(e) When possible, the observer shall select a position that minimizes interference from other fugitive emission sources, such as road dust. The required observer position relative to the sun must be followed. (EPA Method 9, Section 2.1) **[40 CFR 60.675(c)(2)]**

(f) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible. **[40 CFR 60.675(c)(3)]**

(g) For the methods and procedures listed above, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following *alternative* methods and procedures may be used: **[40 CFR 60.675(e)(1)]**

(1) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream, OR

(2) Separate the emissions so that the opacity of emissions from each affected facility can be read.

4.0 REPORTING AND RECORDKEEPING REQUIREMENTS

4.1 Monthly Operations Log: The owner or operator shall maintain a written log of the following recorded information:

- Total tons of raw rock mined and processed for the month and the previous consecutive 12 months, rolling total.
- A summary of any equipment modifications, additions, or replacements.

4.2 Information shall be recorded by the fifth calendar day of the following month. **[F.A.C. RULE 62-4.070(3)]**

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

Palm Beach Aggregates, Inc
20125 State Road 80
Loxahatchee, FL 33470

Limestone quarry and nonmetallic mineral processing plant.
Air Permit File Number 099-0348-004-AC

Palm Beach County, Florida

Palm Beach County Health Department
Environmental Health and Engineering
Air Pollution Control Section

September 21, 2004

1.0 APPLICATION INFORMATION

1.1 Applicant

Palm Beach Aggregate, Inc
20125 State Road 80
Loxahatchee, FL 33470

Authorized Representative:
Darren Teets, Sales Manager

1.2 Application Review

- 07-29-04: Palm Beach County Health Department deemed application complete.
- 07-08-04: Palm Beach County Health Department received application and processing fee for construction permit.

2.0 FACILITY INFORMATION

2.1 Location

Palm Beach Aggregates, Inc
Description: Limestone quarry and nonmetallic mineral processing plant.
Address: 20125 State Road 80, Loxahatchee, FL 33470
UTM: Zone 17; 563.0 km E; 2952.0 km N

2.2 Standard Industrial Classification Code (SIC)

Major Group Number	14	Mining and Quarrying of Nonmetallic Minerals, Except Fuels
Industry Group Number	142 144	Crushed and Broken Stone, Including Riprap Sand and Gravel
Industry Number	1422 1442	Crushed and Broken Limestone Construction Sand and Gravel

2.3 Regulatory Classification

Title III: The facility is not a major source of hazardous air pollutants (HAPs)
Title IV: The facility will not operate units subject to the acid rain provisions of the Clean Air Act.
Title V: The facility is not a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
PSD: The facility is not a PSD major source in accordance with Rule 62-212.400 F.A.C.
RACT: The facility is not subject to any RACT requirements in accordance with guidance issued by the Florida Department of Environmental Protection.
NSPS: The facility is subject to the requirements of 40 CFR 60 Subpart OOO.
NESHAP: The facility is not subject to any requirements of 40 CFR 61.

3.0 PROJECT DESCRIPTION

An application for an air pollution construction permit was submitted to the Palm Beach County Health Department for a limestone quarry and nonmetallic mineral processing plant. The facility was first permitted December 2, 1996.

The limestone quarry and nonmetallic mineral processing plant is located at Loxahatchee in Palm Beach County, Florida. Raw rocks are mined from the quarry and either processed at the mobile crushing operation or hauled to the stationary crushing and screening operation. At the stationary operation, raw rock is processed through a series of crushing and screening equipment to achieve the desired aggregate and sand gradations. The mobile operation crushes raw rock to a stockpile for loading directly to customer trucks. All aggregates and sands are stored in open stockpiles until load-out. All vehicles travel on unpaved roads. Finished products are sold to asphalt plants, cement plants, and the Department of Transportation.

Nonmetallic mineral processing plants and equipment which process more than 25 tons per hour and were constructed after August 31, 1983 are subject to the EPA's New Source Performance Standards (NSPS) specified in 40 CFR 60, Subpart OOO. Fugitive particulate matter is emitted from crushing, screening, stockpiles, and the transfer points of belt conveyors, crushers, grinding mills, screening operations, bucket elevators, storage bins, or loading stations. The EPA regulations specify emission limiting and performance standards for these activities.

At the time of issuance of the first permit, EPA had not yet made changes to the "Major Source" definition, therefore, fugitive emissions were included in the major/minor class determination for the source with respect to Title V applicability. The applicant subsequently requested the following specific restrictions to be classified as a non Title V synthetic minor:

- This facility shall not operate more than 2600 hours per consecutive (12) months.
- This facility shall not mine and process more than 4,300,000 tons of raw rock per consecutive (12) months.

The effective date of change of the Title V "Major Source" definition was November 27, 2001. This change provided for the exclusion of fugitive emissions for sources in section 111 or 112 categories not included in the list of 28 in determining major source status under section 302 or part D of title I of the Act. Specifically, changes to the major source definition exclude fugitive emissions for sources subject to the New Source Performance Standard (NSPS) promulgated after 1980. Since 40 CFR 60, Subpart OOO was promulgated in 1983, fugitive emissions are excluded from the potential to emit determination.

All emissions from Palm Beach Aggregates are considered fugitive emissions, therefore, the previous limitations on hours of operation and process rate are no longer warranted. The applicant is now requesting the removal of all restrictions in the hours of operation. The applicant has also requested the facility be limited to the following:

- This facility shall not mine and process more than 10,000,000 tons of raw rock per consecutive (12) months.

This limit together with required compliance to the NSPS specified in 40 CFR 60, Subpart OOO results in an estimated potential of particulate matter per year below the Title V major source threshold of 100 tons per year. This air construction permit will be public noticed and the restrictions made federally enforceable.

4.0 RULE APPLICABILITY

The proposed project is subject to preconstruction review under the applicable provisions of Chapter 403, Florida Statutes, and Chapters 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). This facility is located in Palm Beach County, an area designated as "maintenance" for the pollutant ozone and attainment for all other criteria pollutants in accordance with Rule 62-275.410 and 62-275.400 respectively. The proposed project is not subject to review under Rule 62-212.400 F.A.C., Prevention of Significant Deterioration (PSD), because this new source is considered a minor emitting facility for the purpose of PSD regulations (potential to emit less than 250 tons per year of pollutant). The proposed facility shall comply with all applicable provisions of the Florida Administrative Code and, specifically, the following chapters and rules:

- **F.A.C. Chapter 62-4** - **Permits.**
- *F.A.C. Rule 62-4.160* - *General Permit Conditions.*
- **F.A.C. Chapter 62-204** - **Air Pollution Control - General Provisions**
- F.A.C. Rule 62-204.800 - Federal Regulations Adopted by Reference
- *[NSPS Subpart OOO, Rule 62-204.800(7)(b)63., F.A.C.]*
- **F.A.C. Chapter 62-210** - **Stationary Sources - General Requirements.**
- *F.A.C. Rule 62-210.300* - *Permits Required.*
- *F.A.C. Rule 62-210.350* - *Public Notice and Comment.*
- *F.A.C. Rule 62-210.370* - *Reports.*
- *F.A.C. Rule 62-210.650* - *Circumvention.*
- *F.A.C. Rule 62-210.700* - *Excess Emissions.*
- **F.A.C. Chapter 62-212** - **Stationary Sources - Preconstruction Review**
- *F.A.C. Rule 62-212.300* - *General Preconstruction Review Requirements*
- **F.A.C. Chapter 62-296** - **Stationary Sources - Emissions Standards**
- *F.A.C. Rule 62-296.320* - *General Pollutant Emission Limiting Standards.*
- **F.A.C. Chapter 62-297** - **Stationary Sources - Emissions Monitoring**

- *F.A.C. Rule 62-297.310 - General Test Requirements.*
- *F.A.C. Rule 62-297.400 - EPA Test Methods Adopted by Reference*

And the following New Source Performance Standard for Non-Metallic Mineral Processing.

- specifically: New Source Performance Standard 40 CFR 60, Subpart OOO

5.0 SOURCE IMPACT ANALYSIS

5.1 Potential Pollutant Emissions

Fugitive particulate matter is this source's primary pollutant emitted from activities such as crushing, screening, stockpiles, and the transfer points of belt conveyors, and equipment such as crushers, grinding mills, bucket elevators, storage bins, and loading stations. Also, unpaved roads contribute significant fugitive dust emissions. Potential emissions are calculated based on the information provided in the January 1995 edition of "AP-42, The Compilation of Air Pollutant Emission Factors for Stationary Point and Area Sources". Table 11.19.2-1 summarizes the potential particulate emissions for each source identified at this facility. Calculations are based on the following general format:

E_{PM10} = (Annual Activity) x (Emission Factor) x (ton/2000 pounds)

TABLE 5.1-1: POTENTIAL EMISSIONS PM10 AND PM

PROCESS SEGMENTS (SCC)	EMISSIONS POINTS	PROCESS RATE (TPY)	MULTI-PLIER	EMISSION FACTOR (LB/TON)	AP-42 REFERENCE	POTENTIAL EMISSIONS (TPY)
EU-001: LIMESTONE QUARRY, PRODUCT LOADOUT, AND ROAD TRAFFIC			**Total**	**Emissions = 82.1PM10/317.6 PM TPY**		
3-05-020-06	Truck loading	10,000,000	2	5.00E-05	11.19.2	0.5 PM10
			2	1.00E-04	11.19.2	1.0 PM
	Truck unloading & loading	10,000,000	1	8.0E-06	11.19.2	0.04 PM10
			1	1.6E-05	11.19.2	1.08 PM
3-05-020-10	Mining/quarrying activities	10,000,000	2	4.00E-05	11.19.2	0.40 PM10
			2	8.00E-05	11.19.2	0.80 PM
3-05-020-11	Unpaved road traffic	73,397 miles	1	2.31lb/vmt	11.02.6	81.2 PM10
		666667 miles	2	8.98lb/vmt	11.02.6	315.8 PM
EU-002: STATIONARY CRUSHING AND SCREENING OPERATION			**Total**	**Emissions = 69.8 PM10/148.7 PM TPY**		
3-05-020-01	Primary crushing (Pioneer 4654 crusher)	10,000,000	1	3.50E-04	11.19.2-1	0.0175PM10
			1	1.75E-04	11.19.2-1	0.035PM
3-05-020-02	Secondary crushing:	10,000,000	1	3.50E-04	11.19.2-1	0.0175PM10
			1	1.75E-04	11.19.2-1	0.035PM
	Steadman 6460 crusher, VSI 77 crusher (sand)					
	Steadman 5460 crusher					
3-05-020-03	Screening of aggregate, from:	10,000,000	5	0.0152	11.19.2-1	3.80 PM10
			5	0.0076	11.19.2-1	7.60 PM
	VSI 77 crusher, Primary (Deiser 8' x 10')					
	Steadman 5460 crusher					
3-05-020-06	Transfer of aggregate, from:	10,000,000	15	0.072	11.19.2	54 PM10
			15	0.036	11.19.2	108 PM
	Truck unloading to Pioneer 4654 crusher					
	Pioneer 4654 crusher to primary screen					
	VSI 77 crusher to primary screen					
	Steadman 6460 crusher to secondary screen					
	Secondary screen to Steadman 5460 crusher					
	Steadman 5460 crusher to secondary screen					
	Secondary screen to 3/4" stockpile					
	Secondary screen to 3/8" stockpile					
	Asphalt sand from classifying tank to stockpile					
	Concrete sand from classifying tank to stockpile					
3-05-020-07	Screening plant/ sand-fill stockpiles	10,000,000	1	0.33	2002AOR	12 PM10
			1	0.12	2002AOR	33 PM
EU-003: MOBILE CRUSHING OPERATION			**Total**	**Emissions = 30.0 PM10/69.0PM TPY**		
3-05-020-01	Primary crushing	10,000,000	1	3.50E-04	11.19.2-1	0.0175PM10
			1	1.75E-04	11.19.2-1	0.035 PM
3-05-020-06	Aggregate transfer, from:	10,000,000	5	0.072	11.19.2-1	18 PM10
			5	0.036	11.19.2-1	36 PM
	Primary crusher loading by truck/backhoe					
	Crusher to stockpile					
3-05-020-07	Crushed rock stockpile	10,000,000	1	0.33	2002AOR	12 PM10
			1	0.12	2002AOR	33 PM
ENTIRE FACILITY		**Total Emissions**		**=181.92 PM10 / 535 PM TPY (all fugitive emission)**		
ENTIRE FACILITY (TITLE V DETERMINATION) AFTER CONTROLS		**Total Emissions**		Per the November 2001 change in Major Source definition, fugitives are not used in making this source's Title V detennination		

Notes:

- *Calculations based on estimated vehicle miles traveled (VMT) and 90% control by wetting.*
- *Emission factors for crushing consider the high moisture content (1.5%) of the raw rock at this quarry.*
- *Emission factors for screening and transfer of aggregate consider wet materials due to the required spray bars.*
- *Unit EU001 has no controls except for assumed 95 % from haul road wetting.*
- *Unit EU002 &EU003 are assumed to have 98% efficiency control from spray systems.*

5.2 Reasonable Assurance

The applicant has provided reasonable assurance that the facility is capable of complying with NSPS Subpart OOO. This regulation focuses primarily on the control of fugitive particulate emissions from the various activities of loading, unloading, crushing, screening, and transferring the nonmetallic mineral products. With regard to fugitive particulate matter emissions, this quarry benefits from Florida's high water table because the raw rocks typically contain a moisture content of greater than 1.5%. In fact, in order to mine this land, water is constantly pumped out of the quarry into a perimeter canal system. Material processed by the large stationary crushing and screening operation is washed at the screening towers with approximately 8000 gallons per minute of water, further wetting the material. This wash is performed to rinse out the fine particulate from the crushed rock in order to meet the standards set by the Department of Transporation. To control fugitive dust from the roadways, a section of the main road has been paved and a water tank truck is used to wet the unpaved roads. An on site inspection by the Palm Beach County Health Department verified these conditions.

6.0 CONCLUSION

Based on the information provided by the applicant, the Palm Beach County Health Department has a reasonable assurance that the proposed project, as described in this evaluation, and subject to the conditions in the proposed draft permit, will not:

- Discharge, emit, or cause pollution in contravention of Department standards, rules or any other technical provision of chapter 62-209 through 62-297 of the Florida Administrative Code. **[F.A.C. 62-4.070(1)]**
- Cause or contribute to a violation of any air quality standard of the Florida Administrative Code. **[F.A.C. 62-212.300(1) and F.S. 403.087]**
- Interfere with reasonable further progress toward maintaining the ambient air quality standards. **[F.A.C. 62-212.500(1)]**
- Adversely impact human health, welfare, nor the environment. **[F.S. 403.021(3) and 403.087(3)]**

In addition, the issuance of this permit will establish this facility as a non-Title V, minor source of air pollution.

Permit Engineer: Antoine Devonshire
Filename: 0348004.TE

Department of
Environmental Protection

Division of Air Resources Management

ANNUAL OPERATING REPORT
FOR AIR POLLUTANT EMITTING FACILITY
See Instructions for Form No. 62-210.900(5)

I. FACILITY REPORT

A. REPORT INFORMATION

1. Year of Report	2. Number of Emissions Units in Report
2006	**3**

B. FACILITY INFORMATION

1. Facility ID	2. Facility Status	3. Date of Permanent Facility Shutdown
0990348	**ACTIVE**	

4. Facility Owner/Company Name
PALM BEACH AGGREGATES, INC.

5. Site Name
PALM BEACH AGGREGATES, INC.

6. Facility Location
Street Address or Other Locator: **20125 State Road 80**
City: **LOXAHATCHEE** County: **PALM BEACH** Zip Code: **33470**

7. Facility Compliance Tracking Code	8. Governmental Facility Code	9. Facility SIC(s)
SM	**0**	**1422 1442**

10. Facility Comment
Limestone quarry subject to NSPS Subpart OOO

C. FACILITY HISTORY INFORMATION

1. Change in Facility Owner/ Company Name During Year?	Previous Name	2. Date of Change

Facility ID : 0990348

D. OWNER/CONTACT INFORMATION

1. Owner or Authorized Representative			
Name and Title DARREN TEETS MR. OPERATIONS MANAGER			
Mailing Address Organization/Firm: PALM BEACH AGGREGATES, INC. Street Address: BOX 700 City: LOXAHATCHEE State: FL Zip Code: 33470			
Telephone: (561) 795-6550	Ext.	Fax: (561) 798-5380	
Email (optional):			
2. Facility Contact			
Name and Title DARREN TEETS MR. OPERATIONS MANAGER			
Mailing Address Organization/Firm: PALM BEACH AGGREGATES, INC. Street Address: BOX 700 City: LOXAHATCHEE State: FL Zip Code: 33470			
Telephone: (561) 795-6550	Ext.	Fax: (561) 798-5380	
Email (optional):			

E. OWNER OR AUTHORIZED REPRESENTATIVE STATEMENT

I hereby certify that the information given in this report is correct to the best of my knowledge.

Signature ______________________ Date ______________________

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description **Limestone quarry, product loadout, and roads**		
2. Emissions Unit ID **001**	3. Emissions Unit Classification **Unregulated Emissions Unit**	4. Operated During Year?
5. DEP Permit or PPS Number **0990348003AO**	6. Emissions Unit Status **ACTIVE**	7. Ozone SIP Base Year Emissions Unit? **N**
8. Emissions Unit Startup Date **January 01, 1994**	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type **NO TRUE EMISSION POINT (FUGITIVE EMISSION)**
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation hours/day days/week	2. Total Operation During Year (hours/year)
3. Percent Hours of Operation by Season DJF : MAM : JJA : SON :	
4. Average Ozone Season Operation (June 1 to August 31) hours/day days/week	5. Total Operation During Ozone Season (days/season)

D. EMISSIONS UNIT COMMENT

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC	2. Description of Process or Type of Fuel	
3-05-020-06	**Industrial Processes Mineral Products Stone Quarrying - Processing Miscellaneous Operations: Approximately 7,100,000 tons per year of truck loading (handled several times)**	
3. Annual Process or Fuel Usage Rate	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit **Tons Raw Material Processed**
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant **PM** **Particulate Matter - Total**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **4**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 0.290701 = Emission Factor (Lbs/Tons Raw Material Processed) 0.0001 * Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 5814011 / 2000

Ozone Season Daily Emission (Lbs/Day) 0.045544 = (Ozone Season Daily Process or Fuel Usage Rate 22772.1 * Emission Factor (Lbs/Tons Raw Material Processed) 0.0001) * (1 - 0.98)

1. Pollutant **PM10** **Particulate Matter - PM10**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **3**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 0.14535 = Emission Factor (Lbs/Tons Raw Material Processed) 0.00005 * Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 5814011 / 2000

Ozone Season Daily Emission (Lbs/Day) 0.022772 = (Ozone Season Daily Process or Fuel Usage Rate 22772.1 * Emission Factor (Lbs/Tons Raw Material Processed) 0.00005) * (1 - 0.98)

*: Pollutant subject to emissions limiting standard or emissions cap

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC	2. Description of Process or Type of Fuel	
3-05-020-10	**Industrial Processes** **Mineral Products** **Stone Quarrying - Processing** **Drilling** **Facility processes 4,300,000 tons limestone per year**	
3. Annual Process or Fuel Usage Rate	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit **Tons Raw Material Processed**
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant **PM** **Particulate Matter - Total**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **4**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 0.138259 = Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 3456468 * Emission Factor (Lbs/Tons Raw Material Processed) 0.00008 / 2000

Ozone Season Daily Emission (Lbs/Day) 0.021753 = (Ozone Season Daily Process or Fuel Usage Rate 13595.6 * Emission Factor (Lbs/Tons Raw Material Processed) 0.00008) * (1 - 0.98)

1. Pollutant **PM10** **Particulate Matter - PM10**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **3**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 0.069129 = Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 3456468 * Emission Factor (Lbs/Tons Raw Material Processed) 0.00004 / 2000

Ozone Season Daily Emission (Lbs/Day) 0.010876 = (Ozone Season Daily Process or Fuel Usage Rate 13595.6 * Emission Factor (Lbs/Tons Raw Material Processed) 0.00004) * (1 - 0.98)

*: Pollutant subject to emissions limiting standard or emissions cap

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC	2. Description of Process or Type of Fuel	
3-05-020-11	**Industrial Processes** **Mineral Products** **Stone Quarrying - Processing** **Hauling** **Potential emissions estimated at 69.06 TPY based on wet roads and 668200 VMT.**	
3. Annual Process or Fuel Usage Rate	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit **Miles Vehicle Travelled**
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant **PM** **Particulate Matter - Total**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **3**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)
Annual Emissions (Ton/Year) 82.385214 = Emission Factor (Lbs/Miles Vehicle Travelled) 8.98 * Annual Process or Fuel Usage Rate (Miles Vehicle Travelled) 366972 / 2000 * (1 - 0.95)

1. Pollutant **PM10** **Particulate Matter - PM10**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **3**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)
Annual Emissions (Ton/Year) 21.192633 = Emission Factor (Lbs/Miles Vehicle Travelled) 2.31 * Annual Process or Fuel Usage Rate (Miles Vehicle Travelled) 366972 / 2000 * (1 - 0.95)

*: Pollutant subject to emissions limiting standard or emissions cap

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC **3-05-020-31**	2. Description of Process or Type of Fuel **Industrial Processes Mineral Products** **Stone Quarrying - Processing Truck Unloading**	
3. Annual Process or Fuel Usage Rate	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit **Tons Raw Material Processed**
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant **PM** **Particulate Matter - Total**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **4**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 0.027652 = Emission Factor (Lbs/Tons Raw Material Processed) 0.000016 * Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 3456468 / 2000

Ozone Season Daily Emission (Lbs/Day) 0.004351 = (Ozone Season Daily Process or Fuel Usage Rate 13595.6 * Emission Factor (Lbs/Tons Raw Material Processed) 0.000016) * (1 - 0.98)

1. Pollutant **PM10** **Particulate Matter - PM10**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **3**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 0.013826 = Emission Factor (Lbs/Tons Raw Material Processed) 0.000008 * Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 3456468 / 2000

Ozone Season Daily Emission (Lbs/Day) 0.002175 = (Ozone Season Daily Process or Fuel Usage Rate 13595.6 * Emission Factor (Lbs/Tons Raw Material Processed) 0.000008) * (1 - 0.98)

*: Pollutant subject to emissions limiting standard or emissions cap

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description **Stationary crushing/screening operation**		
2. Emissions Unit ID **002**	3. Emissions Unit Classification **Regulated Emissions Unit**	4. Operated During Year?
5. DEP Permit or PPS Number **0990348003AO**	6. Emissions Unit Status **ACTIVE**	7. Ozone SIP Base Year Emissions Unit? **N**
8. Emissions Unit Startup Date **January 01, 1994**	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type **MULTIPLE EMISSION POINTS SERVING 1 EMISSIONS UNIT**
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation hours/day days/week	2. Total Operation During Year (hours/year)
3. Percent Hours of Operation by Season DJF : MAM : JJA : SON :	
4. Average Ozone Season Operation (June 1 to August 31) hours/day days/week	5. Total Operation During Ozone Season (days/season)

*: Pollutant subject to emissions limiting standard or emissions cap

D. EMISSIONS UNIT COMMENT

*: Pollutant subject to emissions limiting standard or emissions cap

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC	2. Description of Process or Type of Fuel	
3-05-020-01	**Industrial Processes** **Stone Quarrying - Processing** **Mineral Products** **Primary Crushing** **Crushes approximately 2,800,000 tons of raw rock per year.**	
3. Annual Process or Fuel Usage Rate	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit **Tons Raw Material Processed**
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant **PM** **Particulate Matter - Total**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **3**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 0.012098 = Emission Factor (Lbs/Tons Raw Material Processed) 0.00035 * Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 3456468 * (1 - 0.98) / 2000

Ozone Season Daily Emission (Lbs/Day) = Formula Error

1. Pollutant **PM10** **Particulate Matter - PM10**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **3**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 0.006049 = Emission Factor (Lbs/Tons Raw Material Processed) 0.000175 * Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 3456468 * (1 - 0.98) / 2000

Ozone Season Daily Emission (Lbs/Day) = Formula Error

*: Pollutant subject to emissions limiting standard or emissions cap

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC	2. Description of Process or Type of Fuel	
3-05-020-02	**Industrial Processes** **Mineral Products** **Stone Quarrying - Processing** **Secondary Crushing/Screening** **Secondary crushing of approximately 1,652,000 tons of raw rock per year.**	
3. Annual Process or Fuel Usage Rate	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit **Tons Raw Material Processed**
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant **PM** **Particulate Matter - Total**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **4**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 0.012098 = Emission Factor (Lbs/Tons Raw Material Processed) 0.00035 * Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 3456468 * (1 - 0.98) / 2000

Ozone Season Daily Emission (Lbs/Day) 0.095169 = Emission Factor (Lbs/Tons Raw Material Processed) 0.00035 * Ozone Season Daily Process or Fuel Usage Rate 13595.6 * (1 - 0.98)

1. Pollutant **PM10** **Particulate Matter - PM10**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **4**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 0.006049 = Emission Factor (Lbs/Tons Raw Material Processed) 0.000175 * Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 3456468 * (1 - 0.98) / 2000

Ozone Season Daily Emission (Lbs/Day) 0.047585 = Emission Factor (Lbs/Tons Raw Material Processed) 0.000175 * Ozone Season Daily Process or Fuel Usage Rate 13595.6 * (1 - 0.98)

*: Pollutant subject to emissions limiting standard or emissions cap

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC	2. Description of Process or Type of Fuel	
3-05-020-03	**Industrial Processes** **Mineral Products** **Stone Quarrying - Processing** **Tertiary Crushing/Screening** **Screening of approximately 3,332,000 tons of material per year.**	
3. Annual Process or Fuel Usage Rate	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit **Tons Raw Material Processed**
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant **PM** **Particulate Matter - Total**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **4**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 2.626916 = Emission Factor (Lbs/Tons Raw Material Processed) 0.0152 * Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 3456468 * (1 - 0.98) / 2000 * 5

Ozone Season Daily Emission (Lbs/Day) 4.133062 = Emission Factor (Lbs/Tons Raw Material Processed) 0.0152 * Ozone Season Daily Process or Fuel Usage Rate 13595.6 * (1 - 0.98)

1. Pollutant **PM10** **Particulate Matter - PM10**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **3**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 1.313458 = Emission Factor (Lbs/Tons Raw Material Processed) 0.0076 * Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 3456468 * 5 * (1 - 0.98) / 2000

Ozone Season Daily Emission (Lbs/Day) 2.066531 = Emission Factor (Lbs/Tons Raw Material Processed) 0.0076 * Ozone Season Daily Process or Fuel Usage Rate 13595.6 * (1 - 0.98)

*: Pollutant subject to emissions limiting standard or emissions cap

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC **3-05-020-06**	2. Description of Process or Type of Fuel **Industrial Processes Stone Quarrying - Processing** **Mineral Products Miscellaneous Operations:** **Multiple aggregate transfers of approximately 24,440,000 tons per year.**	
3. Annual Process or Fuel Usage Rate	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit **Tons Raw Material Processed**
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant **PM** CAS No. **Particulate Matter - Total**		[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **4**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 37.329854 = Emission Factor (Lbs/Tons Raw Material Processed) 0.072 * Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 3456468 * 15 * (1 - 0.98) / 2000

Ozone Season Daily Emission (Lbs/Day) 293.66496 = Emission Factor (Lbs/Tons Raw Material Processed) 0.072 * Ozone Season Daily Process or Fuel Usage Rate 13595.6 * (1 - 0.98) * 15

1. Pollutant **PM10** CAS No. **Particulate Matter - PM10**		[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **3**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 18.664927 = Emission Factor (Lbs/Tons Raw Material Processed) 0.036 * Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 3456468 * 15 * (1 - 0.98) / 2000

Ozone Season Daily Emission (Lbs/Day) 146.83248 = Emission Factor (Lbs/Tons Raw Material Processed) 0.036 * Ozone Season Daily Process or Fuel Usage Rate 13595.6 * 15 * (1 - 0.98)

*: Pollutant subject to emissions limiting standard or emissions cap

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC **3-05-020-07**	2. Description of Process or Type of Fuel **Industrial Processes** **Stone Quarrying - Processing** **Mineral Products** **Open Storage** **Stockpiles store approximately 2,800,000 tons per year.**	
3. Annual Process or Fuel Usage Rate	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit **Ton-Years Product Stored**
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant **PM** **Particulate Matter - Total**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **3**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 7.779892 = Emission Factor (Lbs/Ton-Years Product Stored) 0.33 * Annual Process or Fuel Usage Rate (Ton-Years Product Stored) 2357543 * (1 - 0.98) / 2000

Ozone Season Daily Emission (Lbs/Day) 60.5649 = Emission Factor (Lbs/Ton-Years Product Stored) 0.33 * Ozone Season Daily Process or Fuel Usage Rate 9176.5 * (1 - 0.98)

1. Pollutant **PM10** **Particulate Matter - PM10**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **3**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 2.829052 = Emission Factor (Lbs/Ton-Years Product Stored) 0.12 * Annual Process or Fuel Usage Rate (Ton-Years Product Stored) 2357543 * (1 - 0.98) / 2000

Ozone Season Daily Emission (Lbs/Day) 22.0236 = Emission Factor (Lbs/Ton-Years Product Stored) 0.12 * Ozone Season Daily Process or Fuel Usage Rate 9176.5 * (1 - 0.98)

*: Pollutant subject to emissions limiting standard or emissions cap

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description **Mobile crushing operation**		
2. Emissions Unit ID **003**	3. Emissions Unit Classification **Regulated Emissions Unit**	4. Operated During Year?
5. DEP Permit or PPS Number **0990348003AO**	6. Emissions Unit Status **ACTIVE**	7. Ozone SIP Base Year Emissions Unit? **N**
8. Emissions Unit Startup Date **January 01, 1994**	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type **MULTIPLE EMISSION POINTS SERVING 1 EMISSIONS UNIT**
2a. Description of Control Equipment 'a'
2b. Description of Control Equipment 'b'

C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation hours/day days/week				2. Total Operation During Year (hours/year)
3. Percent Hours of Operation by Season	DJF :	MAM :	JJA :	SON :
4. Average Ozone Season Operation (June 1 to August 31) hours/day days/week				5. Total Operation During Ozone Season (days/season)

*: Pollutant subject to emissions limiting standard or emissions cap

D. EMISSIONS UNIT COMMENT

*: Pollutant subject to emissions limiting standard or emissions cap

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC	2. Description of Process or Type of Fuel	
3-05-020-01	**Industrial Processes** **Mineral Products** **Stone Quarrying - Processing** **Primary Crushing** **Mobile crusher processes approximately 1,500,000 tons per year of raw rock.**	
3. Annual Process or Fuel Usage Rate	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit **Tons Raw Material Processed**
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant **PM** **Particulate Matter - Total**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **3**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 0.007957 = Emission Factor (Lbs/Tons Raw Material Processed) 0.00035 * Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 2273570 / 2000 * (1 - 0.98)

Ozone Season Daily Emission (Lbs/Day) 0.06395 = Emission Factor (Lbs/Tons Raw Material Processed) 0.00035 * Ozone Season Daily Process or Fuel Usage Rate 9135.7 * (1 - 0.98)

1. Pollutant **PM10** **Particulate Matter - PM10**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **4**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 0.003979 = Emission Factor (Lbs/Tons Raw Material Processed) 0.000175 * Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 2273570 * (1 - 0.98) / 2000

Ozone Season Daily Emission (Lbs/Day) 0.031975 = Emission Factor (Lbs/Tons Raw Material Processed) 0.000175 * Ozone Season Daily Process or Fuel Usage Rate 9135.7 * (1 - 0.98)

*: Pollutant subject to emissions limiting standard or emissions cap

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC **3-05-020-06**	2. Description of Process or Type of Fuel **Industrial Processes** **Mineral Products**	**Stone Quarrying - Processing** **Miscellaneous Operations:**
3. Annual Process or Fuel Usage Rate	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit **Tons Raw Material Processed**
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant **PM** **Particulate Matter - Total**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **4**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 8.184852 = Emission Factor (Lbs/Tons Raw Material Processed) 0.072 * Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 2273570 * 5 / 2000 * (1 - 0.98)

Ozone Season Daily Emission (Lbs/Day) 13.155408 = Emission Factor (Lbs/Tons Raw Material Processed) 0.072 * Ozone Season Daily Process or Fuel Usage Rate 9135.7 * (1 - 0.98)

1. Pollutant **PM10** **Particulate Matter - PM10**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **3**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 4.092426 = Emission Factor (Lbs/Tons Raw Material Processed) 0.036 * Annual Process or Fuel Usage Rate (Tons Raw Material Processed) 2273570 * 5 / 2000 * (1 - 0.98)

Ozone Season Daily Emission (Lbs/Day) 6.577704 = Emission Factor (Lbs/Tons Raw Material Processed) 0.036 * Ozone Season Daily Process or Fuel Usage Rate 9135.7 * (1 - 0.98)

*: Pollutant subject to emissions limiting standard or emissions cap

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC	2. Description of Process or Type of Fuel	
3-05-020-07	**Industrial Processes Mineral Products**	**Stone Quarrying - Processing Open Storage**
3. Annual Process or Fuel Usage Rate	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit **Ton-Years Product Stored**
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant **PM** **Particulate Matter - Total**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **3**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 7.502781 = Emission Factor (Lbs/Ton-Years Product Stored) 0.33 * Annual Process or Fuel Usage Rate (Ton-Years Product Stored) 2273570 * (1 - 0.98) / 2000

Ozone Season Daily Emission (Lbs/Day) 60.29562 = Emission Factor (Lbs/Ton-Years Product Stored) 0.33 * Ozone Season Daily Process or Fuel Usage Rate 9135.7 * (1 - 0.98)

1. Pollutant **PM10** **Particulate Matter - PM10**	CAS No.	[ ] Below Threshold [ ] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code **3**

5. Emissions Calculation (Show separately both annual and daily emissions calculations)

Annual Emissions (Ton/Year) 2.728284 = Annual Process or Fuel Usage Rate (Ton-Years Product Stored) 2273570 * Emission Factor (Lbs/Ton-Years Product Stored) 0.12 * (1 - 0.98) / 2000

Ozone Season Daily Emission (Lbs/Day) 21.92568 = Emission Factor (Lbs/Ton-Years Product Stored) 0.12 * Ozone Season Daily Process or Fuel Usage Rate 9135.7 * (1 - 0.98)

*: Pollutant subject to emissions limiting standard or emissions cap

FLORIDA DEPARTMENT OF HEALTH

Jeb Bush
Governor

M. Rony François, M.D., M.S.P.H., Ph.D.
Secretary

FINAL DETERMINATION

Air Permit No. 099-0530-003-AC

PERMITTEE:

Hubbard Construction Company, East Coast Paving Division
2269 Indian Road, Building No.3
West Palm Beach, FL 33409

Authorized Representative: Tom Craft, Division Manager

PROJECT:

Hubbard Construction Company
Approximately 0.1miles north of State Road 80 and 0.2 miles west of the L-8 Canal near Loxahatchee

UTM: Zone 17; 562.79 km E; 2951.97 km N
Lat/Long.: 26° 41' 20" N/ 80° 22' 8" W
Project Description: Hot mix asphalt plant, Rap Crusher
SIC No.: 2951

PERMITTING AUTHORITY:

Palm Beach County Health Department
Division of Environmental Health and Engineering
Air Pollution Control Section
P.O. Box 29 (901 Evernia Street)
West Palm Beach, Florida 33402-0029

Air Permit Engineers: Paul Kalamaras / Laxmana Tallam,

COMMENTS AND REVISIONS

The Health Department received proof of publication on December 27, 2006 that the required PUBLIC NOTICE was published in the December 14, 2006 issue of the Palm Beach Post Newspaper. No comments were made by the applicant, the general public, nor the Florida Department of Environmental Protection. The Health Department made minor changes to some typographical errors, such as misspelled words.

FINAL ACTION

The final action of the Health Department is to issue the air pollution construction permit, as proposed, with the above noted revisions.

Filename: 099000530-003_AC.NOP

Jeb Bush
Governor

FLORIDA DEPARTMENT OF HEALTH

M. Rony François, M.D., M.S.P.H., Ph.D.
Secretary

DECEMBER 29, 2006

ELECTRONIC CORRESPONDENCE
TCRAFT@HUBBARD.COM

AIR POLLUTION CONSTRUCTION PERMIT

Hubbard Construction Company, East Coast Paving Division
2269 Indian Road, Building No.3
West Palm Beach, FL 33409
Authorized Representative
Mr. Tom Craft, Division Manager

ARMS No.:	0990530
Permit No:	0990530-003-AC
Issued:	December 29, 2006
Expires:	December 29, 2007

LOCATED AT:
Hubbard Construction Company
Approximately 0.1miles north of State Road 80 and 0.2 miles west of the L-8 Canal near Loxahatchee

UTM: Zone 17; 562.79 km E; 2951.97 km N
Lat/Long.: 26° 41' 20" N/ 80° 22' 8" W
Description: Hot mix asphalt plant, Rap Crusher
SIC No.: 2951

STATEMENT OF BASIS:

The Palm Beach County Health Department (*Health Department*) issues this permit under the provisions of Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4 through 62-297 the Florida Administrative Code (F.A.C.). The Florida Department of Environmental Protection (DEP) has permitting jurisdiction under Chapter 403.087, F.S. However, in accordance with Section 403.182, F.S., the DEP recognizes the Health Department as the approved local air pollution control program in Palm Beach County. As such, the DEP and the Health Department have entered into a Specific Operating Agreement that authorizes the Health Department to issue or deny permits for this type of air pollution source located in Palm Beach County. The above named permittee is authorized to operate the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Health Department.

ISSUED BY:

Executed in West Palm Beach, Florida
PALM BEACH COUNTY HEALTH DEPARTMENT

James E. Stormer, QEP, Environmental Administrator
Air Pollution Control Section
Division of Environmental Health and Engineering

PALM BEACH COUNTY HEALTH DEPARTMENT
Post Office Box 29 / 901 Evernia Street, West Palm Beach, FL 33402
Jean M. Malecki, M.D., MPH, FACPM, Director
www.pbchd.com

SECTION I. SUMMARY INFORMATION

PERMIT HISTORY

12-14-06	Hubbard Construction Published the Public Notice
11-29-06	Draft of the Air Construction Permit 0990530-003-AC issued
10-18-06	The Palm Beach County Health Department received an Air Construction Permit for relocation and installation of a 400 TPH Asphalt Plant and a 250 TPH RAP Crusher
04-13-03	The Palm Beach County Health Department issues Federally Enforceable State Operating Permit 0990530-002-AF.
03-19-03	Hubbard Construction Company submits application for renewal Federally Enforceable State Operating Permit 0990530-001-AF
05-20-98	The Palm Beach County Health Department issued Federally Enforceable State Operating Permit 0990530-001-AF

PERMIT CONTENT

Section I: Summary Information
Section II: Facility-Wide Specific Conditions
Section III: Emissions Unit Specific Conditions
Section IV: Appendices
- *Appendix A*: General Permit Conditions
- *Appendix B*: Terminology
- *Appendix C*: Test Procedures
- *Appendix D*: NSPS Requirements
- *Appendix E:* Standards of Performance for Nonmetallic Mineral Processing Plants

REGULATORY CLASSIFICATIONS

Title III:	The facility is not a major source of hazardous air pollutants (HAPs)
Title IV:	The facility will not operate units subject to the acid rain provisions of the Clean Air Act.
Title V:	The facility is not a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
PSD:	The facility is not a PSD major source in accordance with Rule 62-212.400 F.A.C.
RACT:	The facility is not subject to any RACT requirements
NSPS:	The facility is subject to the requirements of 40 CFR 60 Subpart OOO and I.
NESHAP:	The facility is not subject to any requirements of 40 CFR 6 & 63.

EMISSIONS UNIT SUMMARY

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
002	400 TPH Hot Drum Mix Asphalt Plant
003	Asphalt Cement Heater
004	250 TPH Portable RAP Crusher and Screening Operation
005	Materials Handling and Storage Operations

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

ADMINISTRATIVE REQUIREMENTS

II.1. Regulating Agencies: All applications, reports, tests, and notifications shall be submitted to the Air Pollution Control Section of the Palm Beach County Health Department (Health Department) at P.O. Box 29 (901 Evernia Street), West Palm Beach, Florida, 33402-0029, and phone number (561) 355-3136. In addition, *copies* shall be submitted to the Air Program, Southeast District Office, Florida Department of Environmental Protection (DEP) at 400 North Congress Avenue, Suite 200, West Palm Beach, Florida, 33401. **[Specific Operating Agreement (SOA)]**

II.2. General Permit Conditions: The permittee shall be aware of, and operate under, the attached General Permit Conditions listed in ***Appendix A*** of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. **[Rule 62-4.160, F.A.C.]**

II.3. Citation Format: The format for citing applicable regulations is provided in ***Appendix B*** of this permit.

II.4. Application for Operation Permit: The permittee shall apply for a renewal permit at least 60 days prior to the expiration of this operation permit. The application shall include: the current FDEP Application Form; the correct application processing fee; all required test reports; and a summary of any changes or substitutions to the original equipment, processes, fuels, controls, etc. When the renewal application is timely and sufficient, the existing permit shall remain in effect until final action is taken by the Health Department. **[Rules 62-4.090 and 62-210.900, F.A.C.]**

II.5. Applicable Regulations: This facility is subject to the following regulations: Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. Specifically, the emissions units are subject to 62-204.800 and 40 CFR 60 Subpart OOO, Subpart I, New Source Performance Standards for Hot Mix Asphalt Plants. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. **[Rule 62-210.300(1), F.A.C. and the SOA]**

EMISSION LIMITING AND PERFORMANCE STANDARDS

II.6. General VOC Standards: The permittee shall not store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents without applying known and existing vapor emission control devices or systems. **[Rule 62-296.320(1), F.A.C.]**

II.7. Objectionable Odors: The permittee shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. **[Rule 62-296.320(2), F.A.C.]**

Note: An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-210.200(200), F.A.C.]

II.8. General Visible Emissions Standard: Unless otherwise specified by permit, the permittee shall not cause, let, permit, suffer or allow to be discharged into the atmosphere any air pollutants from new, or existing emissions units, the opacity of which is equal to or greater than 20 percent. **[Rule 62-296.320(4)(b), F.A.C.]**

II.9. Unconfined Emissions of Particulate Matter: The permittee shall not cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. **[Rule 62-296.320(4)(c), F.A.C.]**

(a) Paving and maintenance of roads, parking areas and yards.
(b) Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
(c) Application of asphalt, water, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.

(d) Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
(e) Landscaping or planting of vegetation
(f) Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
(g) Confining abrasive blasting where possible.
(h) Enclosure or covering of conveyor systems.

Note: Facilities that cause frequent, valid complaints will be required by the Health Department to take these or other reasonable precautions. In determining what constitutes reasonable precautions for a particular facility, the Health Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

II.10. Facility-Wide Operating Restrictions: **The facility is subject to the following operating restrictions on a 12-month rolling total [Rule 62-210.300(3)(c)1, F.A.C**

(a) **Fuel Oil Usage shall not exceed 1,200,000 gallons per year (12-month rolling total).**

(b) **Asphalt Concrete Production shall not exceed 500,000 tons per year (12-month rolling total).**

(c) **Fuel oil sulfur content shall not exceed the following.**

1. **Drum Dryer - 1.00% by weight as fired. (Requested by Applicant)**
2. **Asphalt Cement Heater – 0.50 % by weight as fired. (Requested by Applicant)**

OPERATION AND MAINTENANCE REQUIREMENTS

II.11. Circumvention: The permittee shall not circumvent air pollution control equipment/methods or allow the emission of air pollutants without the equipment/methods operating properly. **[Rule 62-210.650, F.A.C.]**

II.12. Excess Emissions Requirements **[Rule 62-210.700, F.A.C.]**

(a) Excess emissions resulting from start-up, shutdown or malfunction of these emissions units shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period unless specifically authorized by the Health Department for longer duration. **[Rule 62-210.700(1), F.A.C.]**

(b) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown, or malfunction are prohibited. **[Rule 62-210.700(4), F.A.C.]**

(c) In case of excess emissions resulting from malfunctions, the owner or operator shall notify the Air Pollution Control Section of the Palm Beach County Health Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the problem; and the corrective actions being taken to prevent recurrence. **[Rule 62-210.700(6), F.A.C.]**

COMPLIANCE MONITORING REQUIREMENTS

II.13. Duration: Unless otherwise specified in this permit, all records and reports required by this permit shall be kept for at least 3 years from the date the information was recorded. **[Rule 62-4.160(14)(b), F.A.C.]**

II.14. Test Procedures: The permittee shall meet all applicable requirements of the Chapter 62-297, F.A.C. **[Rule 62-297.100, F.A.C.]**

II.15. Test Notification: The owner or operator shall notify the Health Department, in writing, at least 15 days prior to the date on which each formal compliance test is to begin, of the test date, the expected test time, the location of the test, the facility contact person responsible for coordinating the test, and the person or company conducting test. The 15 day notification requirement may be waived at the discretion of the Health Department. Likewise, if circumstances prevent testing during the test window specified for the emissions unit, the owner or operator may request an alternate test date before the expiration of this window. **[Rule 62-297.310(7)(a)9., F.A.C.]**

II.16. Special Compliance Tests: When the Health Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a FDEP rule or permit is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Health Department. **[Rule 62-297.310(7)(b), F.A.C.]**

REPORTS REQUIRED

II.17. Annual Operations Report: Before March 1st of each year, the permittee shall submit an Annual Operations Report *[DEP Form No. 62-210.900(5)]* to the Health Department which summarizes operations for the previous calendar year. **[Rule 62-210.370(3), F.A.C.]**

II.18. Excess Emissions Report: If excess emissions occur, the permittee shall notify the Air Compliance Section of the Health Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Health Department may request a written summary report of the incident. **[Rules 62-4.130 and 62-210.700(6), F.A.C.]**

II.19 Emission Compliance Stack Test Reports: For each required emissions compliance test, a report indicating the results of the test shall be filed with the Health Department as soon as practical, but no later than 45 days after the last sampling run is completed. The report shall provide sufficient detail on the tested emissions unit and the procedures used to allow the Health Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. and summarized in Appendix C of this permit. Additional report information may be specified for a given group of emissions units in this permit. **[Rule 62-297.310(8), F.A.C.]**

WASTE REQUIREMENTS

II.20. Waste Disposal: The owner or operator shall treat, store, and dispose of all liquid, solid, and hazardous wastes in accordance with all applicable Federal, State, and Local regulations. This air pollution permit does not preclude the permittee from securing any other types of required permits, licenses, or certifications.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

GROUP A. This portion of the permit addresses the following emissions unit:

002	**400 TPH Hot Drum Mix Asphalt Plant** consisting of: an Astec Model No. RDB-9640 double drum mixer with asphalt cement heater; an Astec primary dry cyclone separator; and an Astec Model No. RBH-68 baghouse with pulse-jet cleaning. The manufacturer's maximum rated asphalt production rate is 400 tons per hour.
Permitting Note: The emissions unit is subject to the visible emissions and particulate matter emission limiting standards of 40 CFR 60 Subpart I, Standards of Performance for Hot Mix Asphalt Facilities (adopted by reference Rule 62-204.800, F.A.C. See Appendix D).	

EMISSION LIMITING STANDARDS

III.A.1. Visible Emissions (VE): Visible emissions shall not equal nor exceed twenty (20) percent opacity from the baghouse outlet. **[40 CFR 60.92(a)(2), Rules 62-204.800, Rules 62-210.300(3)(c)1,f, and 62-296.320(4)(b)1, F.A.C.]**

III.A.2. Particulate Matter (PM): Particulate emissions from the dryer exhaust shall not exceed 90 mg/dscm (0.04 grains per dry standard cubic foot) of flue gas. **[40 CFR 60.92 (a)(1), Rules 62-204.800, and 62-210.300(3)(c)1,d, F.A.C.]**

OPERATING RESTRICTIONS

III.A.3. Hours of Operation: The permittee is authorized to operate the dryer 24 hours per day, 7 days per week, but no more than 4,000 hours per year (12-month rolling total).
[Rule 62-210.300(3)(c)1., F.A.C.]

III.A.4. Fuel Oils: The permittee is authorized to fire the following fuels, alone or in combination, within the dryer:

(a) Natural gas,

(b) Residual distillate oil (no. 5)

(c) Virgin Fuel Oil (no. 2); and

(d) On-Specification Used Fuel Oil (with a PCB concentration of less than 49 ppm)

Note: The use of on-specification used oil is authorized provided the permittee receives a vendor certificate for each shipment. The analysis shall include sulfur, arsenic, cadmium, chromium, lead and polychlorinated biphenyls (PCB) contents, heat content, total halogens, and flash point. Vendor certification shall not be the sole basis of compliance with the sulfur content limitation of this permit.

III.A.5. Sulfur Content: The maximum sulfur content of any fuel oil fired in the dryer shall not exceed 1.0 percent by weight (As-Fired Limitation). **[Rule 62-210.300(3)(c)1.c., F.A.C.]**

III.A.6. On-specification Used Oil Allowed as Fuel: This permit allows the burning of used oil fuel meeting EPA "on-specification" used oil specifications, with a maximum sulfur content of 1.0 percent by weight, and a PCB concentration of no greater than 49 ppm.

On-specification used oil shall meet the following specifications:

Arsenic shall not exceed 5.0 ppm;
Cadmium shall not exceed 2.0 ppm;
Chromium shall not exceed 10.0 ppm;
Lead shall not exceed 100.0 ppm;
Total halogens shall not exceed 1000 ppm;
Flash point shall not be less than 100 degrees F.

Used oil that **does not** meet the specifications for on-specification used oil shall **not** be burned at this facility.
[40 CFR 279, Subpart B]

COMPLIANCE/PERIODIC MONITORING REQUIREMENTS

III.A.7. Visible Emissions: The permittee shall have a formal compliance test conducted on the dryer exhaust each federal fiscal year (October 1 – September 30) at intervals of no more than 12 months to demonstrate compliance with the opacity limitation. **[Rule 62-297.310(7)(a)4.a, F.A..]**

The test shall meet the following requirements:

(a) The permittee shall use EPA Method 9, *Visual Determination of the Opacity of Emissions from Stationary Sources,* 40 CFR 60, Appendix A. **[40 CFR 60.93(b)(2)]**

(b) The observation period of the EPA Method 9 shall be at least thirty (30) minutes in duration. **[Rule 62-297.310(4)(a)2, F.A.C.]**

III.A.8. Particulate Matter: The permittee shall have a formal compliance test conducted on the dryer exhaust each federal fiscal year (October 1 – September 30) at intervals of no more than 12 months to demonstrate compliance with the specific condition III.A.2. **[Rule 62-297.310(7)(a)4.a, F.A.C.]**.

The test shall meet the following requirements:

(a) The permittee shall use EPA Method 5, *Determination of Particulate Emissions from Stationary Sources*, 40 CFR 60, Appendix A. **[40 CFR 60.93(b)(1)]**

(b) Each test shall consist of 3 separate runs with sample times and volumes of at least 60 minutes and 31.8 dry standard cubic feet per run. **[40 CFR 60.93(b)(1)]**

III.A.9. Fuel Oil Sulfur Content: The permittee shall sample and monitor fuel oil sulfur content during each federal fiscal year (October 1 – September 30) at intervals of no more than 12 months collect a sample of the as-fired fuel oil in accordance with the following:

(a) Annual sampling shall be conducted simultaneously with the annual particulate matter testing and consist of three (3) samples, one per test run, collected from an in-line sampler.
(b) Test samples shall be mixed into a single composite sample with a split sample provided to the Health Department within 24 hours of collection.
(c) The samples shall be analyzed for sulfur content in accordance with the following ASTM Method(s), as appropriate:
   (i) ASTMD 4057-88. Standard Practice for Manual Sampling of Petroleum and Petroleum Products.
   (ii) ASTMD 129-91. Standard Test Method for Sulfur in Petroleum Products (General Bomb Method).
   (iii) ASTMD 2622-94. Standard Test Method for Sulfur in Petroleum Products by X-Ray Spectrometry.
   (iv) ASTMD 4294-90. Standard Test Method for Sulfur in Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectroscopy.

[Rule 62-297.310(7)(b), F.A.C.]

III.A.10. On- Specification Used Fuel Oil – Certification Required: The owner or operator shall receive from the marketer, for each load of used oil received, a certification that the used oil meets the specifications for on-specification used oil and contains a PCB concentration of no greater than 49 ppm. This certification shall also describe the basis for the certification, such as analytical results.

III.A.11. Note that a claim that used oil does not contain quantifiable levels of PCBs (that is, that the used oil contains less than 2 ppm of PCBs) must be documented by analysis or other information. The first person making the claim that the used oil does not contain PCBs is responsible for furnishing the documentation. The documentation can be tests, personal or special knowledge of the source and composition of the used oil, or a certification from the person generating the used oil claiming that the used oil contains no detectable PCBs.

[Rule 62-4.070, F.A.C.]

Used fuel oil –Analysis Required: If the owner or operator does not receive certification from the marketer as described above, the owner or operator shall sample and analyze each load of used oil received for the following parameters:

Arsenic, cadmium, chromium, lead, total halogens, flash point, PCBs, and percent sulfur content by weight, ash, and BTU value (BTU per gallon).

Analysis shall be performed via EPA-approved or ASTM methods.

If the owner or operator relies on certification from the marketer as described above, the owner or operator shall, at a minimum, each year, sample one load of used oil received, selected at random by the owner or operator, and analyze the sample for the above parameters. [F.A.C. Rule 62-4.070]

If the analytical results show that the used oil does **not** meet the specification for on-specification used oil, **or** that it contains a PCB concentration of **50 ppm or greater**, the owner or operator shall immediately notify the Department of Environmental Protection, Southeast District Office, Air Program and provide the analytical results to the Department. **The owner or operator shall immediately cease burning of the used oil.** Annual analysis of used fuel oil shall not be required if the facility did not burn used fuel oil in that calendar year.
[Rule 62-4.070, F.A.C.]

III.A.12. Operating Records: The permittee shall maintain the following records for at least three (3) years:

(a) Daily Records: The permittee shall maintain daily records on the following:

- Date of operation and operator's name.
- Total hours of asphalt production for each day.
- Total tons of asphalt produced for each day.
- Average asphalt production for the day
- Total Gallons of each fuel oil fired
- Total MMCF of Natural Gas fired
- Note any repairs or maintenance performed on the baghouse.

(b) Monthly Records: The permittee shall maintain monthly records on the following:

- Month of operation.
- Total hours of operation.
- Total tons of asphalt produced.
- Total Gallons of each fuel oil fired.
- Total MMCF of Natural Gas fired
- Vendor Certificates on Fuel Oil/On-Specification Used Oil.

GROUP B. This portion of the permit addresses the following emissions unit:

EMISSION UNIT NO.	EMISSIONS UNIT DESCRIPTION
003	**Asphalt cement heater** 2.5 mmbtu/hour Asphalt cement heater (Heatec Model No. HC-200) firing No. 2 fuel oil containing no more than 0.5% sulfur by weight.

III.B.1. Exemption Conditions:

The generic exemption recognizes that the applicant operates an asphalt cement heater as described above. In accordance with Rule 62-210.300(3) F.A.C., emission units that do not emit or have the potential to emit 5 tons per year or more of a regulated pollutant other than a hazardous air pollutant or lead, are exempted from the permitting requirements of Rule 62-4, 62-210, and 62-212, FAC.

The potential emissions from this unit were estimated based on restricted operations (4000 hr/yr) and the combustion of No.2 Fuel Oil containing no more than 0.50% sulfur by weight. In event that the permittee operates the asphalt cement heater using a fuel oil with sulfur content above 0.50%, the permittee shall take the following actions:

1. Notify the Palm Beach County Health Department's Air Pollution Control Section within 24-hours of the event. Notification shall include the name of the fuel supplier, the sulfur content, the duration or dates of the event, and actions to correct the problem; and

2. Submit a complete application and appropriate fee for an Air Pollution Construction Permit.

Note: *Compliance with the sulfur content requirements of this exemption can be verified through vendor supplied information. The permittee shall receive a vendor certificate for each shipment including an analysis of the sulfur content. The permittee shall maintain copies of all the vendor certifications on-site. Upon request, this information shall be made available for inspection by the Palm Beach County Health Department. All records shall be maintained for a period of 3 years.*

GROUP C. **This portion of the permit addresses the following emissions units:**

EMISSION UNIT NO.	EMISSIONS UNIT DESCRIPTION
004	**250 TPH Portable RAP Crusher and Screening Operation:** Fugitive particulate matter is emitted from crushing, screening, stockpiles, and the transfer points of belt conveyors, crushers, grinding mills, screening operations, bucket elevators, storage bins, and loading stations. The affected transfer points are subject to 40 CFR 60, Subpart OOO adopted and incorporated by reference in Rule 62-204.800(7)(b)64.
005	**Materials Handling & Storage Operation:** Includes storage piles, storage bins, conveyors, and transfer operations.

EMISSIONS LIMITING STANDARDS

III.C.1 Rule Applicability: These emission units are subject to 40 CFR 60 Subpart OOO "Standards for Nonmetallic Mineral Processing Plants" included in Appendix E.
[Rule 62-204.800(8)(b), F.A.C.]

III.C.2. Visible Emissions:

(a) **Transfer Points Subject to OOO:** Visible emissions from any grinding mill, screening operation, bucket elevator, transfer point on belt conveyors, bagging operation, storage bin, enclosed truck or railcar loading station, or any other affected emission point subject to 40 CFR Part 60, Subpart OOO, adopted and incorporated by reference at Rule 62-204.800, F.A.C., shall not exceed 10% opacity.

(b) **Crusher Subject to OOO:** Visible emissions from any crusher without a capture system subject to 40 CFR Part 60, Subpart OOO, shall not exceed 15% opacity.

(c) **Transfer Points and Crusher Not Subject to OOO:** Visible emissions from any crusher, grinding mill, screening operation, bucket elevator, transfer point on belt conveyors, bagging operation, storage bin, enclosed truck or railcar loading station, or any other emission point not subject to 40 CFR Part 60, Subpart OOO, shall be less than 20% opacity, pursuant to Rule 62-296.320(4)(b)1., F.A.C.

(d) **Wet Operations:** The owner or operator shall ensure that wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to the next crusher, grinding mill or storage bin and are subject to 40 CFR Part 60, Subpart OOO, adopted and incorporated by reference at Rule 62-204.800, F.A.C., do not discharge any visible emissions. The owner or operator shall also ensure that screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, where such screening operations, bucket elevators, and belt conveyors process saturated materials up to the first crusher, grinding mill, or storage bin in the production line and are subject to 40 CFR Part 60, Subpart OOO, adopted and incorporated by reference at Rule 62-204.800, F.A.C., do not discharge any visible emissions;

[40 CFR 60.672(b) & (c), Rules 62-204.800, and 62-296.320(4), F.A.C.]

OPERATING RESTRICTIONS

III.C.3. Hours of Operation: The permittee is authorized to operate the materials handling and storage operations 24 hours per day, 7 days per week, and 52 weeks per year.
[Rule 62-4.070, F.A.C.]

COMPLIANCE/PERIODIC MONITORING REQUIREMENTS

III.C.4. Compliance Frequency: The permittee shall demonstrate initial compliance with the emission standards on or after sixtieth day after achieving maximum production rate at which the facility will be operated, but not later than 180 days after initial startup. The renewal compliance shall be demonstrated within 60 days prior to the expiration of the operating permit.

The permittee shall use EPA Method 9, *Visual Determination of the Opacity of Emissions from Stationary Sources,* 40 CFR 60, Appendix A.
[40 CFR 60.672 (b) & (c), Rules 62-4.070(3), 62-297.310, F.A.C,]

III.C.5. VE Observations: In determining compliance with the particulate matter standards in §60.672 (b) and (c), the owner or operator shall use Method 9 and the procedures in 40 CFR 60.11, with the following additions:

(a) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
(b) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.
(c) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

[40 CFR 60.675 (c)(1)]

III.C.6. When determining compliance with the fugitive emissions standard specified in specific condition III.C.2.(a) the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(a) There are no individual readings greater than 10 percent opacity; and
(b) There are no more than 3 readings of 10 percent for the 1-hour period.

[40 CFR 60.675 (c)(3)]

III.C.7. When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as specified in specific condition III.C.2.(b), the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(a) There are no individual readings greater than 15 percent opacity; and
(b) There are no more than 3 readings of 15 percent for the 1-hour period.

[40 CFR 60.675(c)(4)]

III.C.8 Reporting and Recordkeeping Requirements.

(a) The owner or operator shall notify PBCHD, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator pursuant to Rule 62-297.310(7)(a)9., F.A.C.

(b) The owner or operator shall file the test report(s) to the PBCHD, no later than 45 days after the last sampling run of each test is completed pursuant to Rules 62-297.310(8)(a) & (b), F.A.C. The details of the reports shall be in accordance with Rule 62-297.310(8)(c), F.A.C.

(c) The owner or operator shall be in compliance with the provisions of 40 CFR 60.676, Reporting and Recordkeeping, 40 CFR 60.7, Notification and Recordkeeping, and 40 CFR 60.19, General Notification and Reporting Requirements.

[40 CFR 60.676 and Rule 62-297.310, F.A.C.]

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

Draft Construction Air Permit No. 099-0530-003-AC

Hubbard Construction Company, East Coast Paving Division
2269 Indian Road, Bldg. No. 3, West Palm Beach, Florida 33409
West Palm Beach Asphalt Plant
West Palm Beach, Florida

Palm Beach County, Florida

Permitting Authority:

Palm Beach County Health Department
Division of Environmental Health and Engineering
Air Pollution Control Section
P.O. Box 29 (901 Evernia Street)
West Palm Beach, FL 33402-0029

Air Permit Engineer: Paul Kalamaras
Filename 099-0530-003-AC,TE & PE.doc,

Wednesday, November 29, 2006

1.0 APPLICATION INFORMATION

1.1 Applicant Name and Address

Hubbard Construction Company/Eastern Paving Division.
2269 Indian Road, Building No. 3
West Palm Beach, FL 33409

Authorized Representative: Mr. Tom Craft, Division Manager

1.2 Reviewing and Process Schedule

October 18, 2006: Application Received and Deemed Complete

2.0 FACILITY INFORMATION

2.1 Facility Location

Hubbard Construction Company – Eastern Paving Division, West Palm Beach Asphalt Plant is located at 2269 Indian Road Building No.3, West Palm Beach, Florida 33409. The facility is located 26 miles from the nearest PSD Class I area, Everglades National Park. The UTM Coordinates are Zone 17, 562.79 km E; 2951.97 km N.

2.2 Standard Industrial Classification Code (SIC #2951)

Major Group Number	29	*Petroleum Refining and Related Industries*
Industry Number	2951	*Asphalt Paving Mixtures and Blocks*

2.3 Area Designation

The proposed project is located within a PSD Class II area that is currently designated as attainment for the pollutant's ozone, carbon monoxide, sulfur dioxide, and nitrogen dioxide; and unclassifiable for the pollutants lead and PM_{10} (Particulate Matter less than 10 micrometers in diameter). The area is further designated as a maintenance area for the pollutant ozone.

2.3 Source Classifications

Preconstruction Review Program: The facility is not listed under any of the Major Facilities Categories. The major source thresholds are 5 tons per year of lead and 250 tons per year of the remaining PSD pollutants. The thresholds include fugitive and point source emissions. The facility is currently classified as a "Synthetic Minor Source" under the PSD Program.

Title V Operating Permit Program: The facility is classified as a synthetic minor source with potential emissions of less than 100 tons per year of any regulated pollutant, 10 tons per year of any listed hazardous air pollutant, and 25 tons per year of any combination of any listed hazardous air pollutants. The facility's proposed permit to construct includes the emission units that are exempt under Rule 62-210.300(3)(c)1, Florida Administrative Code (F.A.C.).

Hazardous Air Pollutant Program: The facility is classified as a minor source with potential emissions less than 10 tons per year of any listed hazardous air pollutant and 25 tons per year of any combination of any listed hazardous air pollutants.

3.0 PROJECT DESCRIPTION

3.1 Background: In 1998, the Palm Beach County Health Department (Health Department) issued a federally enforceable construction permit to the facility that limited potential emissions to levels below the major source thresholds. The construction permit designated the facility as a synthetic minor source under the PSD and Title V Operating Permit programs. Since 1998, the Florida Department of Environmental Protection (FDEP) has adopted a conditional Title V exemption for asphalt cement plants subject to the federal New Source Performance Standards. The conditional exemption from Title V air permitting establishes the following limitations:

- Annual (12-month rolling total) operating time of less than 4,000 hours;
- Annual (12-month rolling total) production cap of 500,000 tons of asphaltic cement;
- Annual (12-month rolling total) fuel usage cap of 1.2 million gallons;
- Maximum fuel oil sulfur content of 1.0 percent by weight;
- Maximum particulate matter emissions of 0.04 grains per dry standard cubic foot (3-hour average); and
- Fugitive emissions controlled through reasonable precautions.

Emissions Units: The emissions units include the following:

EMISSION UNIT NO.	DESCRIPTION
002	400 TPH Asphalt Plant, Cyclone (Astec Model No. RDB-9640 Double Drum Mix dry cyclone seperator and Astec Model No. RBH-68 baghouse with pulse-jet cleaning).
003	400 TPH Asphalt Cement Heater (2.5 mmbtu/hr Asphalt cement heater, Heatec Model No. HC-200)
004	250 TPH Portable Crushing and Screening Operation.
005	Materials Handling & Storage Operation including the storage piles, storage bins, conveyors, and transfer operations.

3.3 Pollution Prevention: In a memorandum dated May 28, 1992, the U.S. EPA defined "Pollution Prevention" based on an environmental management hierarchy. The hierarchy included; 1) Prevention, 2) Recycling, 3) Treatment, and 4) Disposal or Release. For the proposed project, the primary emphasis is on the recycling of the materials to reclaim copper and aluminum. However, the overall impact of the project includes the following:

- Increased efficiency in the use of raw materials (Sand and Rock);
- Protection of our natural resources (Land); and
- Reduction of hazardous substances (waste oil) entering the solid waste stream.

Based on the available information, the proposed project meets the pollution prevention objectives of the Pollution Prevention Act of 1990 which includes source reduction, recycling, and treatment.

4.0 RULE APPLICABILITY

The proposed project is subject to preconstruction review under the applicable provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). This facility is located in Palm Beach County, an area designated as "maintenance" for the pollutant ozone and attainment for all other criteria pollutants in accordance with Rule 62-204.340 F.A.C. The proposed project is exempt from review under Rule 62-212.400 F.A.C., Prevention of Significant Deterioration (PSD), because the facility is a synthetic minor source of air pollution and the proposed project will not increase potential emissions above the major source thresholds. The proposed facility is subject to the following air pollution control provisions:

Florida Administrative Code

Chapter 62-4, F.A.C.	- **Permits.**
Rule 62-4.160, F.A.C.	- *General Permit Conditions.*
Chapter 62-204, F.A.C.	- **Air Pollution Control - General Provisions**
Rule 62-204.800(7), F.A.C	- *NSPS – Subpart I, NSPS for Hot Mix Asphalt Facilities*
Rule 62-204.800, F.A.C.	- *Appendices Adopted*
Chapter 62-210, F.A.C.	- **Stationary Sources - General Requirements**
Rule 62-210.300, F.A.C.	- *Permits Required.*
Rule 62-210.300(3)(c), F.A.C.	- *Conditional Exemptions from Title V Air Permitting*
Rule 62-210.350, F.A.C.	- *Public Notice and Comment.*
Rule 62-210.370, F.A.C.	- *Reports.*
Rule 62-210.550, F.A.C	- *Stack Height Policy.*
Rule 62-210.650, F.A.C	- *Circumvention.*
Rule 62-210.700, F.A.C	- *Excess Emissions.*
Chapter 62-212, F.A.C	- **Stationary Sources - Preconstruction Review**
Rule 62-212.300, F.A.C	- *General Preconstruction Review Requirements*
Chapter 62-296, F.A.C	- **Stationary Sources - Emissions Standards**
Rule 62-296.320, F.A.C	- *General Pollutant Emission Limiting Standards.*
Chapter 62-297, F.A.C	- **Stationary Sources - Emissions Monitoring**
Rule 62-297.310, F.A.C	- *General Test Requirements.*
Rule 62-297.400, F.A.C.	- *EPA Test Methods Adopted by Reference*

<u>**Code of Federal Regulations**</u>

40 CFR Part 60 -Subpart I, 'Standards for Hot Mix Asphalt Facilities and Subpart OOO,'Standards for Nonmetallic Mineral Processing' Plants

5.0 PROJECT ANALYSIS

The proposed project is subject to the preconstruction review requirements of Rule 62-212.300, F.A.C. and the permitting requirements of Rule 62-210.300, F.A.C. Review of the permit application and regulations identified emission limiting standards, potential emissions, control requirements, and monitoring requirements for the proposed unit. The findings of the Health Department's analysis are addressed in the following subsections.

5.1 <u>Potential Emissions:</u> For the facility, visible emissions, particulate matter and sulfur dioxide are considered regulated pollutants and subject to emission limitations and operating restrictions. The emission limitations and potential to emit for the regulated pollutants are listed below.

EU-002, Double Drum Dryer

Pollutant	Emission Limitation(s)	Potential Emissions	
		Lb/hr	TPY
Opacity	20 Percent Opacity	N/A	N/A
Odor	No Objectionable Odor - Any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.	N/A	N/A
Particulate Matter	0.04 gr/dscf.	17.83	35.66
Sulfur Dioxide(1)	Fuel Oil - 1,200,000 gallons/year & 1.0% Sulfur by weight	23.2	14.5
Notes: gr – grains (7000 grains = 1 pound) dscf – dry standard cubic feet (1) Potential emissions based on firing fuel oil with a sulfur content of 1.0% by weight and no reduction within the dryer.			

EU-003, Asphalt Cement Heater

Pollutant	Emission Limitation(s)	Potential Emissions	
		Lb/hr	TPY
Opacity	20 Percent Opacity	N/A	N/A
Particulate Matter	N/A	0.04	0.14

EU-003, Asphalt Cement Heater

Pollutant	Emission Limitation(s)	Potential Emissions	
		Lb/hr	TPY
Sulfur Dioxide	Fuel Oil - 0.5% Sulfur by weight	1.27	4.97

EU-004, Portable RAP Crusher, RAP Power Generator, RAP Diesel Engine

Pollutant	Emission Limitation(s)	Potential Emissions	
		Lb/hr	TPY
Opacity	10% Opacity	N/A	N/A
Particulate Matter (PM10)	N/A	6.833	2.332

EU-005, Material Handling

Pollutant	Emission Limitation(s)	Potential Emissions	
		Lb/hr	TPY
Opacity	10% Opacity	N/A	N/A
Odor	No Objectionable Odor – Any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.	N/A	N/A

5.2 Facility-Wide Summary of Potential-To-Emit (PTE)

The calculated potential emissions for the activities at this facility include the following;:

Total Facility Potential-to-Emit (PTE)

Pollutant	EU-002 TPY	EU-003 TPY	EU-004 TPY	EU-005 TPY	Facility Total TPY
CO	32.5	0.35	-	-	32.85
NO_X	13.75	1.40	-	-	15.15
PM_{10}	5.75	0.08	2.332	-	8.16
SO_2	14.5	4.97	-	-	19.47
VOCs	8.00	0.024	-	-	8.024
SO_2 total is based on a 1.2 million gallon/year limit, a 1.0% sulfur content and no reduction within the dryer.					

5.3 Air Quality Analysis

Based on a refined modeling analysis, the proposed project will not cause or contribute to a violation of the federal or state ambient air quality standards for sulfur dioxide, particulate matter, carbon monoxide, lead or nitrogen dioxide. An analysis of potential impacts on the ozone ambient air quality standard was not conducted since an appropriate regulatory model is not available.

Pollutant	Averaging Period	FAAQS (µg/m³)	PSD Class II Increment[1] (µg/m³)	Predicted Impacts (µg/m³)
Sulfur Dioxide	3-hr	1300	512	324.2[2]
	24-hr	260	91	11.71
	Annual	60	20	1.9
Particulate Matter	24-hr	150	30	8.9
	Annual	50	17	1.46

Notes:

(1) – A PSD Class II Increment analysis was not required. The Health Department has assumed that emissions units 002 and 003 were increment-expanding sources representing twice the impacts as the existing facility.

(2) – Impacts based on firing fuel oil with a maximum sulfur content of 1.0% by weight and 50% reduction of SO_2 emissions within the dryer.

6.0 CONCLUSION

The applicant has requested operating restrictions that will *reduce* the potential pollutant emissions in order to escape the Title V Major Source Operation Permit Program. Based on the information provided by the applicant and other available information, the Health Department has reasonable assurance that the proposed project, as described in this evaluation, and subject to the conditions in the proposed draft permit, will not cause or contribute to a violation of any ambient air quality standard, PSD increment, or any other technical provision of Chapters 62-209 through 62-297 of the Florida Administrative Code.

CERTIFICATION

Air Permit No.: 099-00530-003-AC

Facility: Hubbard Construction Company – Eastern Paving Division
Authorized Representative: Tom Craft, Division Manager

Location: 0.1 mile north of State Road 80 and 0.2 miles west of L-8 Canal in Loxahatchee
West Palm Beach, FL 33416-5065

UTM: Zone 17; 562.79 km E; 2951.97 km N

Project: **Air Construction Permit**

THIS IS TO CERTIFY that the air pollution engineering features described in the above referenced applications and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403 of the Florida Statutes, and Chapters 62-209 through 62-297 of the Florida Administrative Code. However, other aspects of the design, including, but not limited to, the electrical, mechanical, structural, hydrological and geological features, have not been evaluated and are not part of this certification.

____

Laxmana Tallam, P.E., 53889
Air Pollution Control Section
Environmental Health and Engineering

Date: ________________

APPENDIX E

RECEPTOR LOCATION FIGURES AND BUILDING PROFILE INPUT PROGRAM (BPIP) FILES

Figure E-1
FPL West County Unit 3 Project
Aerial of Site Location and Boundary

Source: Golder, 2007.

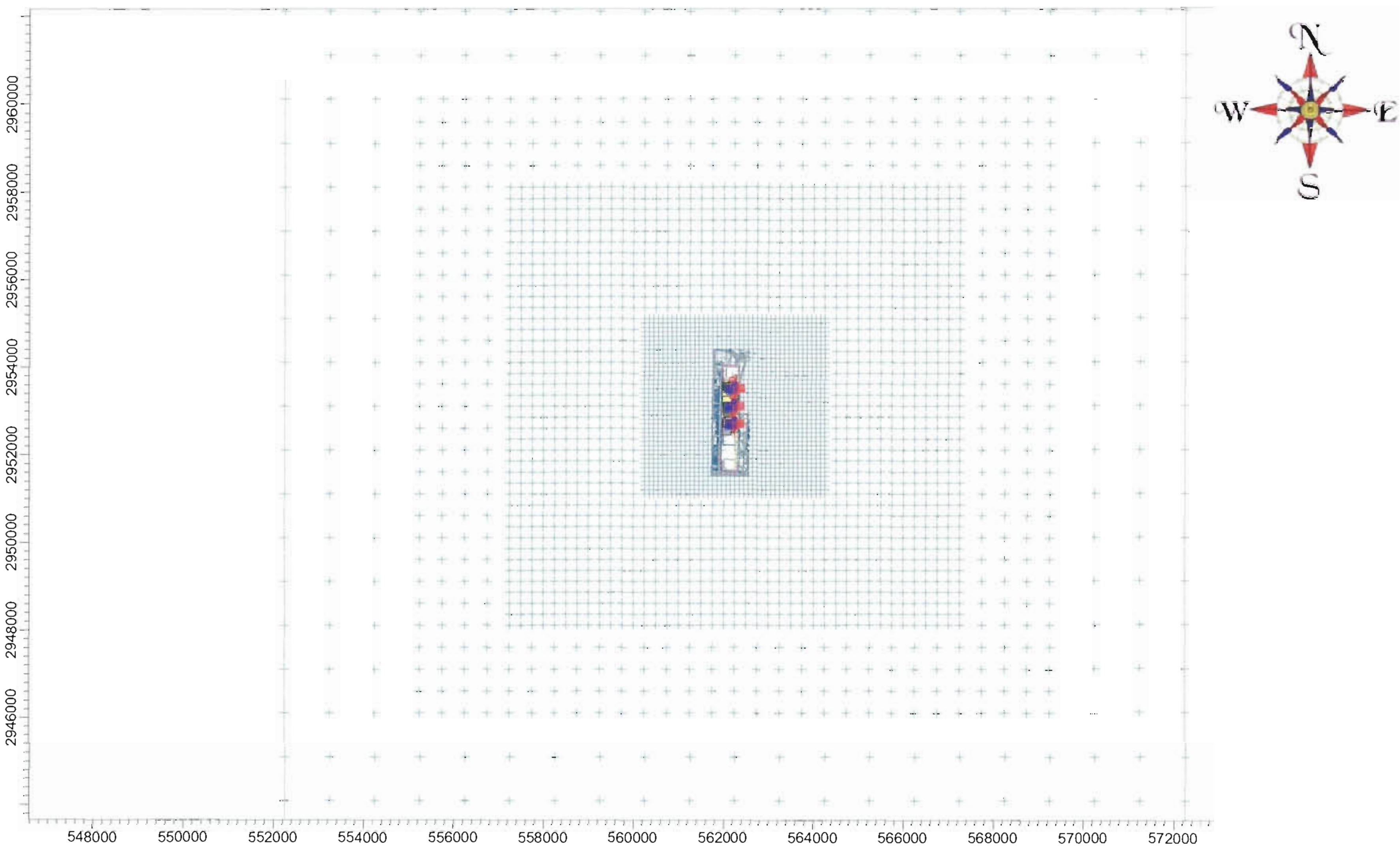

Figure E-2
FPL West County Unit 3
Receptor Locations

Source: Golder, 2007.

FPL

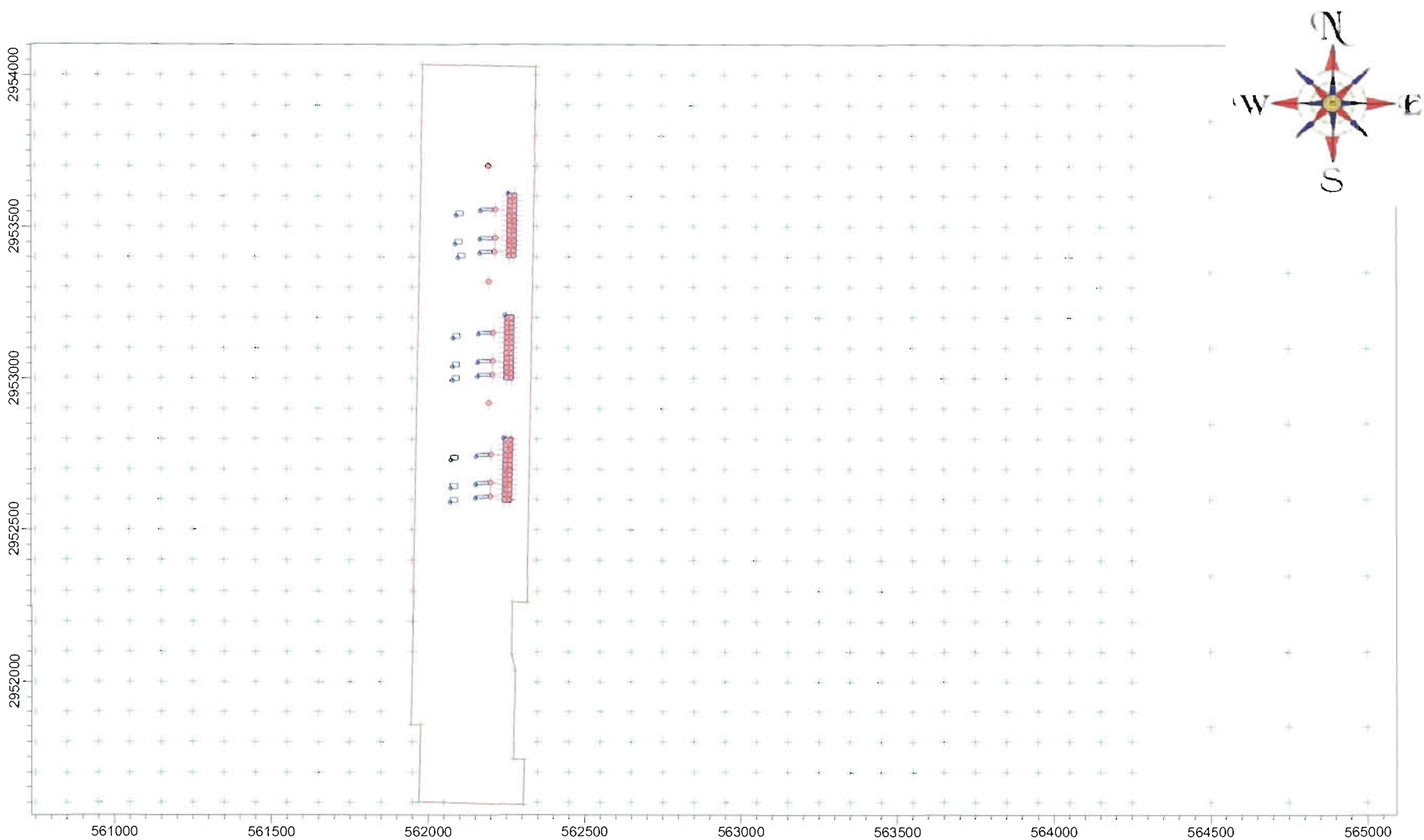

Figure E-3
FPL West County Unit 3 Project
Near-Field Receptors

Source: Golder, 2007.

FPL.

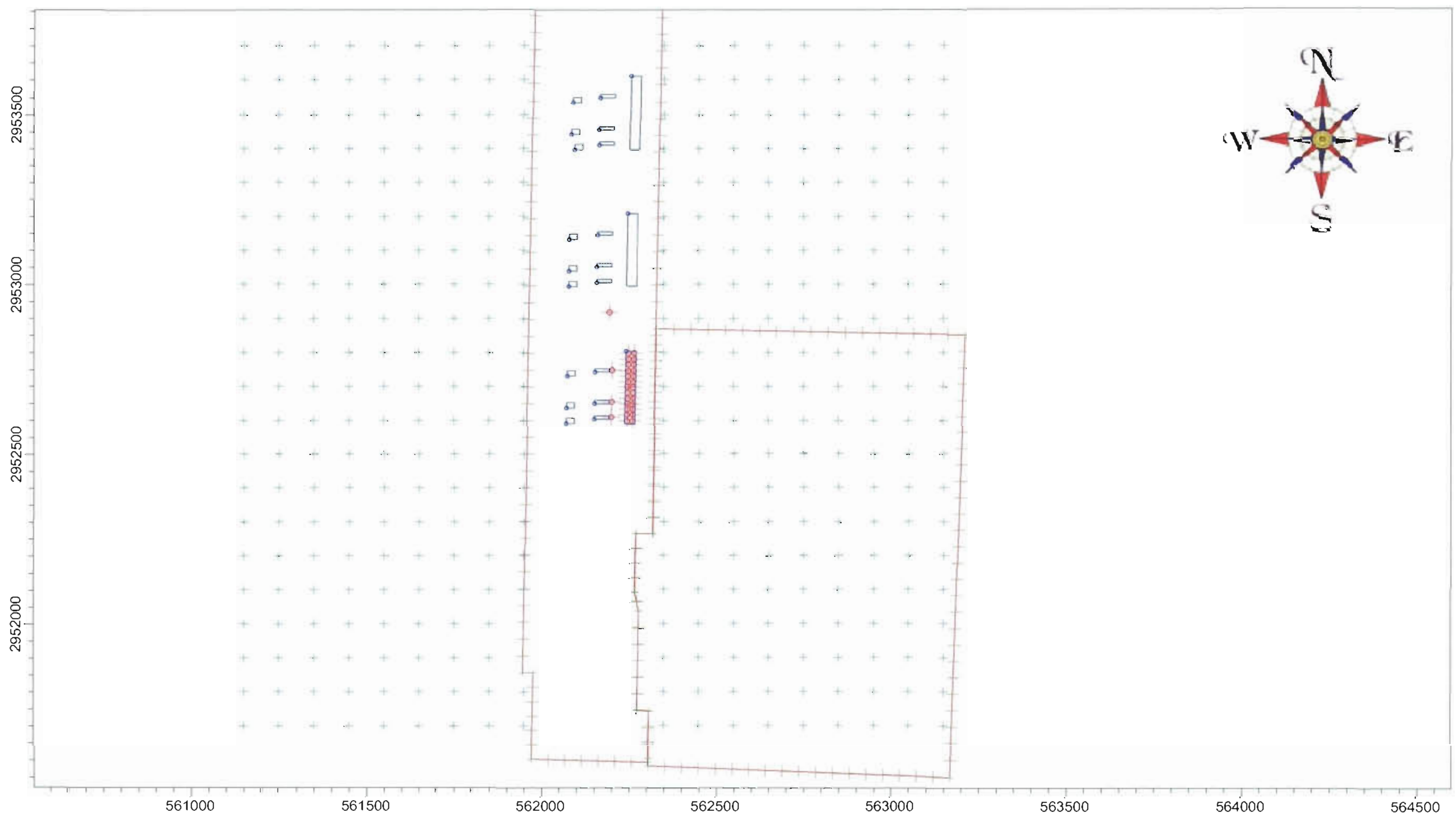

Figure E-4
FPL West County Unit 3 Project
Receptor Grid Used in the AAQS and PSD Class II Increment Analyses for SO_2
For All Sources Excluding Hubbard Construction Company
Source: Golder, 2007.

FPL

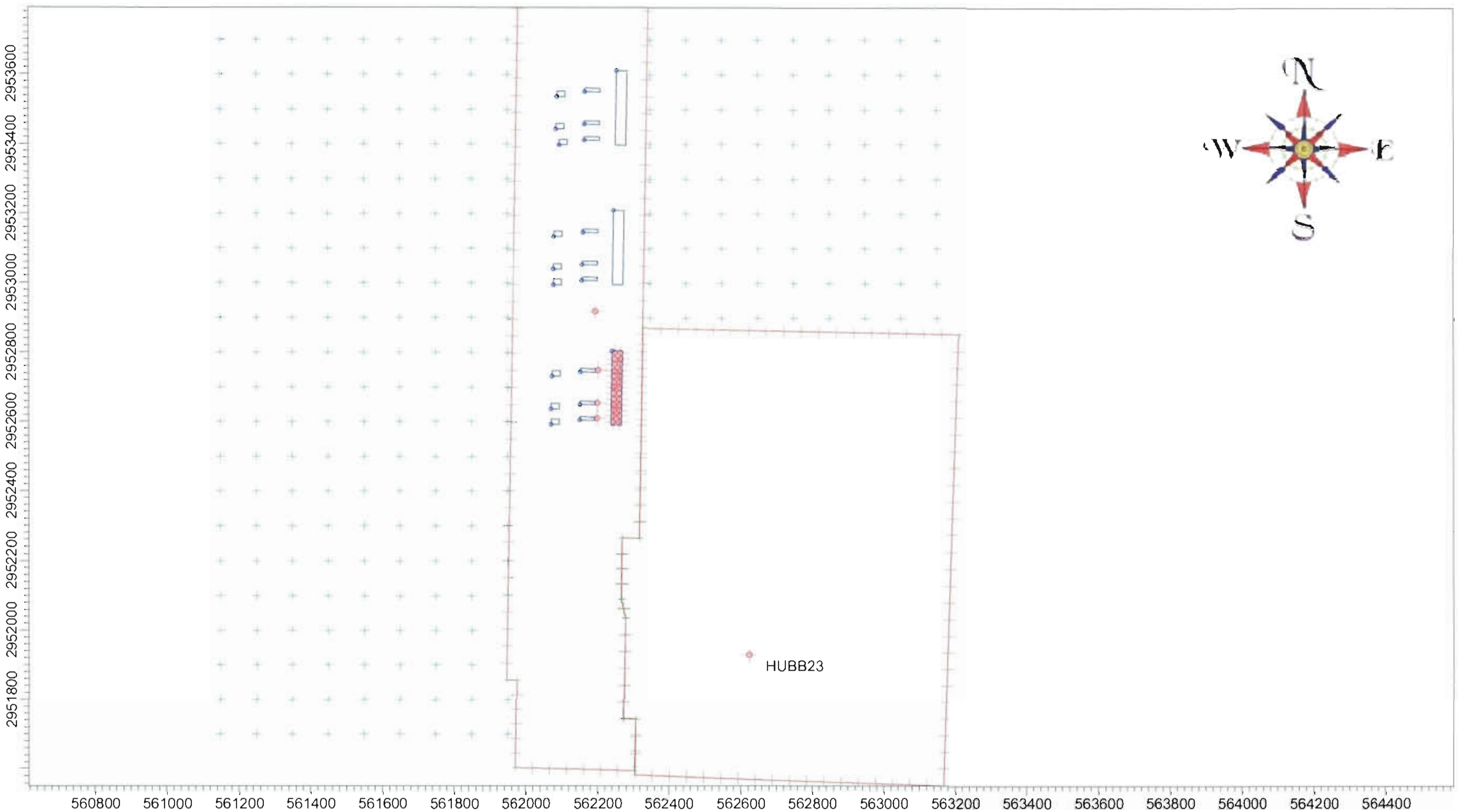

Figure E-5
FPL West County Unit 3 Project
Receptor Grid Used in the AAQS and PSD Class II Increment Analyses for SO_2
For All Sources Including Hubbard Construction Company
Source: Golder, 2007.

FPL

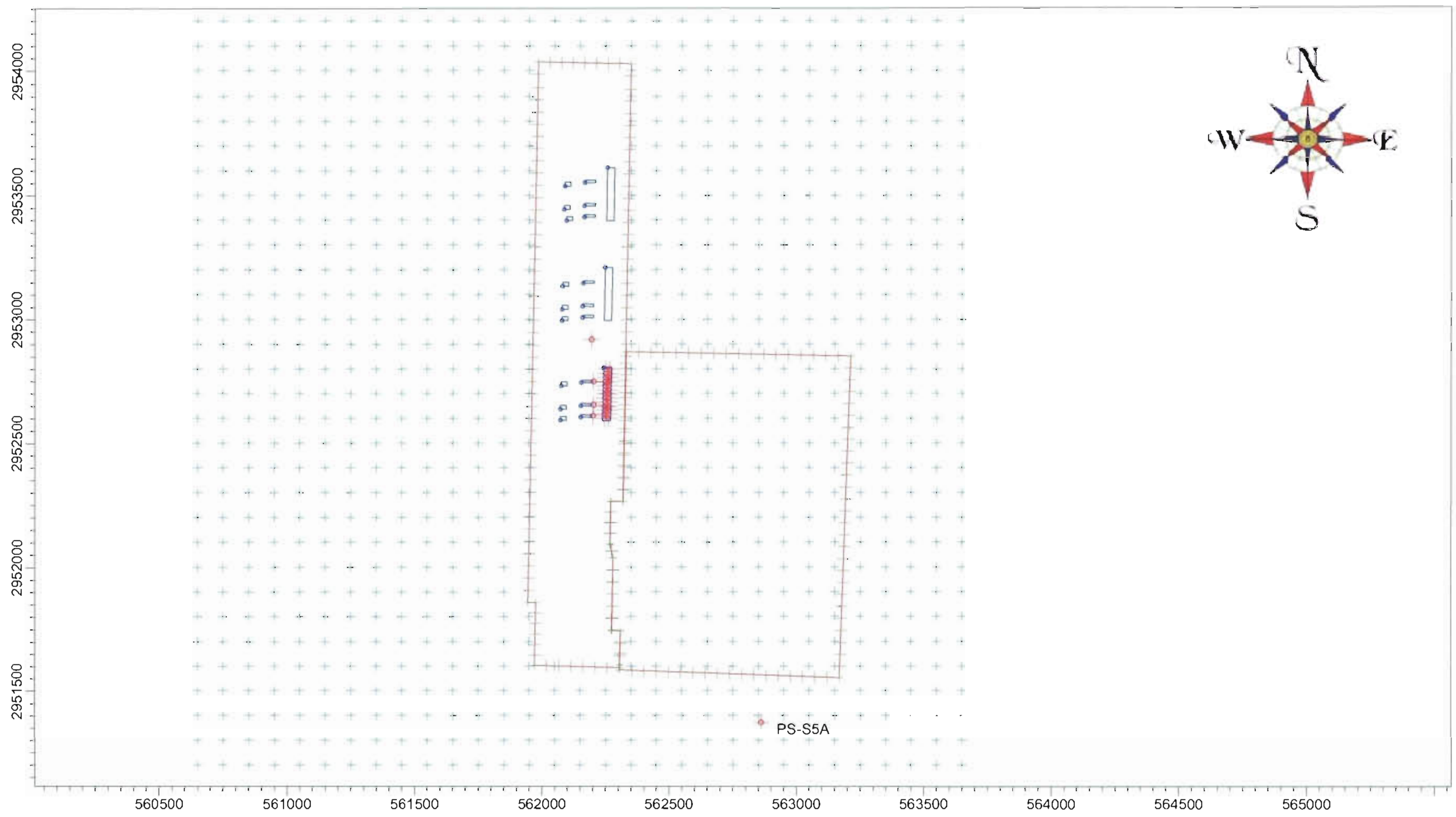

Figure E-6
FPL West County Unit 3 Project
Receptor Grid Used in the AAQS and PSD Class II Increment Analyses for PM_{10}
For All Sources Excluding Palm Beach Aggregates and Hubbard Construction Company
Source: Golder, 2007.

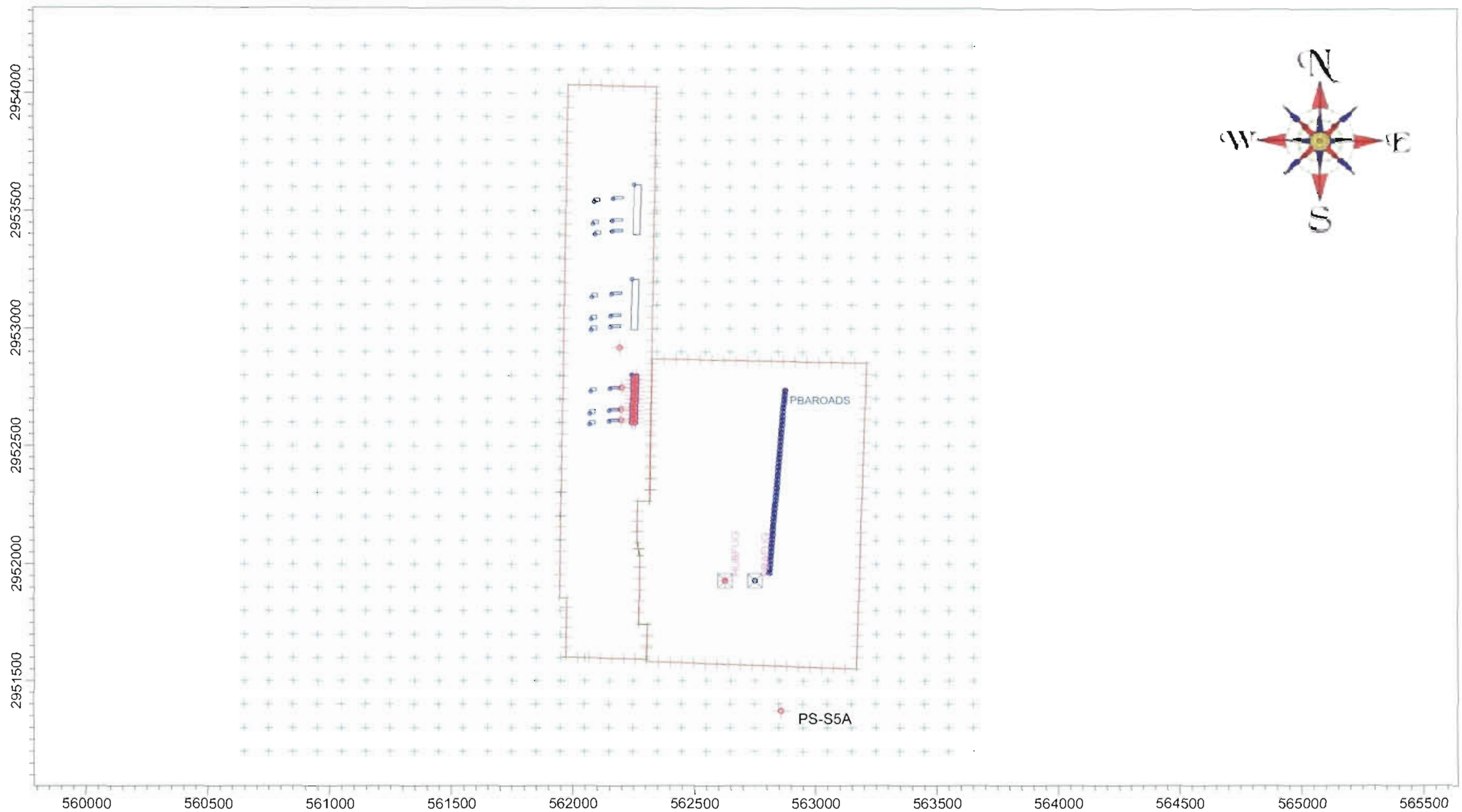

Figure E-7
FPL West County Unit 3 Project
Receptor Grid Used in the AAQS and PSD Class II Increment Analyses for PM_{10}
For All Sources Including Palm Beach Aggregates and Hubbard Construction Company
Source: Golder, 2007.

MODEL FILES

```
'S:\Projects\FPL\West County Unit3 Aug07\LAKES\wc3.isc'
'P'
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'UTMY'   0.0000
21
'COOLTOW1'  1          4.000
    4         14.935
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          562285.786       2953610.225
          562282.052       2953396.288
          562252.795       2953396.798
'COOLTOW2'  1          4.000
    4         14.935
          562247.623       2953208.855
          562276.879       2953208.344
          562273.145       2952994.407
          562243.888       2952994.918
'COOLTOW3'  1          4.000
    4         14.935
          562242.612       2952803.491
          562271.869       2952802.980
          562268.135       2952589.043
          562238.878       2952589.554
'HRSG1A'  1          4.000
    4         31.394
          562168.100       2953551.011
          562168.276       2953561.068
          562210.637       2953560.329
          562210.461       2953550.272
'HRSG1B'  1          4.000
    4         31.394
          562166.345       2953456.990
          562166.520       2953467.047
          562208.881       2953466.307
          562208.706       2953456.251
'HRSG1C'  1          4.000
    4         31.394
          562166.345       2953410.972
          562166.520       2953421.029
          562208.881       2953420.289
          562208.706       2953410.233
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          562162.132       2953155.229
          562204.492       2953154.490
          562204.317       2953144.433
'HRSG2B'  1          4.000
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          562159.937       2953061.780
          562202.298       2953061.041
          562202.122       2953050.984
'HRSG2C'  1          4.000
    4         31.394
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          562159.498       2953015.730
          562201.859       2953014.991
          562201.684       2953004.934
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          562197.031       2952752.734
          562196.856       2952742.677
'HRSG3B'  1          4.000
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          562153.354       2952659.790
          562195.715       2952659.051
          562195.539       2952648.994
'HRSG3C'  1          4.000
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          562152.476       2952614.384
          562194.837       2952613.644
          562194.661       2952603.587
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          562090.636       2953552.448
          562113.191       2953552.448
          562113.191       2953536.599
'AIRINL1B'  1          4.000
    4         26.822
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          562087.357       2953459.015
          562109.913       2953459.015
```

```
          562109.913     2953443.166
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          562096.373     2953413.383
          562118.928     2953413.383
          562118.928     2953397.533
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    4          26.822
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          562081.347     2953148.915
          562103.902     2953148.915
          562103.902     2953133.066
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          562079.708     2953054.917
          562102.263     2953054.917
          562102.263     2953039.068
'AIRINL2C'  1            4.000
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          562079.435     2953009.558
          562101.990     2953009.558
          562101.990     2952993.708
'AIRINL3A'  1            4.000
    4          26.822
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          562075.610     2952746.978
          562098.165     2952746.978
          562098.165     2952731.129
'AIRINL3B'  1            4.000
    4          26.822
          562072.878     2952637.131
          562072.878     2952652.980
          562095.433     2952652.980
          562095.433     2952637.131
'AIRINL3C'  1            4.000
    4          26.822
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          562072.605     2952607.348
          562095.160     2952607.348
          562095.160     2952591.498
90
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'O2A7595'       4.000        45.420      562210.050     2953149.570
'O2B7595'       4.000        45.420      562208.630     2953056.360
'O2C7595'       4.000        45.420      562207.660     2953010.730
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'O3C7595'       4.000        45.420      562200.640     2952609.610
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'COOL1_05'      4.000        19.202      562261.390     2953535.850
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'COOL1_18'      4.000        19.202      562278.540     2953535.260
'COOL1_19'      4.000        19.202      562277.640     2953518.300
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'COOL2_04'      4.000        19.202      562253.260     2953150.920
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'COOL2_14'	4.000	19.202	562268.040	2953199.560	
'COOL2_15'	4.000	19.202	562267.760	2953181.390	
'COOL2_16'	4.000	19.202	562268.420	2953166.460	
'COOL2_17'	4.000	19.202	562268.140	2953150.900	
'COOL2_18'	4.000	19.202	562268.330	2953134.760	
'COOL2_19'	4.000	19.202	562268.050	2953117.030	
'COOL2_20'	4.000	19.202	562267.770	2953101.300	
'COOL2_21'	4.000	19.202	562267.500	2953082.910	
'COOL2_22'	4.000	19.202	562267.690	2953066.890	
'COOL3_01'	4.000	19.202	562250.100	2952798.640	
'COOL3_02'	4.000	19.202	562250.290	2952780.090	
'COOL3_03'	4.000	19.202	562249.930	2952764.770	
'COOL3_04'	4.000	19.202	562249.650	2952746.510	
'COOL3_05'	4.000	19.202	562248.890	2952730.590	
'COOL3_06'	4.000	19.202	562249.100	2952713.490	
'COOL3_07'	4.000	19.202	562248.330	2952698.830	
'COOL3_08'	4.000	19.202	562247.560	2952681.350	
'COOL3_09'	4.000	19.202	562247.780	2952665.220	
'COOL3_10'	4.000	19.202	562247.500	2952649.290	
'COOL3_11'	4.000	19.202	562247.220	2952633.360	
'COOL3_12'	4.000	19.202	562245.830	2952616.600	
'COOL3_13'	4.000	19.202	562245.530	2952598.970	
'COOL3_14'	4.000	19.202	562266.000	2952798.620	
'COOL3_15'	4.000	19.202	562265.720	2952780.450	
'COOL3_16'	4.000	19.202	562264.970	2952764.670	
'COOL3_17'	4.000	19.202	562264.200	2952746.770	
'COOL3_18'	4.000	19.202	562263.440	2952730.710	
'COOL3_19'	4.000	19.202	562262.670	2952713.490	
'COOL3_20'	4.000	19.202	562262.890	2952697.350	
'COOL3_21'	4.000	19.202	562262.610	2952681.390	
'COOL3_22'	4.000	19.202	562262.330	2952665.430	
'COOL1_23'	4.000	19.202	562276.520	2953452.500	
'COOL1_24'	4.000	19.202	562275.960	2953437.760	
'COOL1_25'	4.000	19.202	562275.600	2953421.000	
'COOL1_26'	4.000	19.202	562275.050	2953403.860	
'COOL2_23'	4.000	19.202	562267.690	2953050.880	
'COOL2_24'	4.000	19.202	562267.690	2953033.880	
'COOL2_25'	4.000	19.202	562267.690	2953016.880	
'COOL2_26'	4.000	19.202	562267.690	2953000.880	
'COOL3_23'	4.000	19.202	562261.360	2952647.630	
'COOL3_24'	4.000	19.202	562262.330	2952633.060	
'COOL3_25'	4.000	19.202	562261.850	2952616.570	
'COOL3_26'	4.000	19.202	562260.390	2952598.600	
'FULHEAT3'	0.000	9.144	562195.690	2952917.930	'natural gas fuel heater for Unit 3'
'FULHEAT2'	0.000	9.144	562195.690	2953317.000	'natural gas fuel heater for Unit 2'
'FULHEAT1'	0.000	9.144	562195.690	2953700.000	'natural gas fuel heater for Unit 1'

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BPIP (Dated: 04274)

DATE : 9/14/2007
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==========================
BPIP PROCESSING INFORMATION:
==========================

The P flag has been set for preparing downwash related data for a model run utilizing the PRIME algorithm.

Inputs entered in METERS will be converted to meters using a conversion factor of 1.0000. Output will be in meters.

The UTMP variable is set to UTMY. The input is assumed to be in UTM coordinates. BPIP will move the UTM origin to the first pair of UTM coordinates read. The UTM coordinates of the new origin will be subtracted from all the other UTM coordinates entered to form this new local coordinate system.

Plant north is set to 0.00 degrees with respect to True North.

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PRELIMINARY* GEP STACK HEIGHT RESULTS TABLE
(Output Units: meters)

Stack Name	Stack Height	Stack-Building Base Elevation Differences	GEP** EQN1	Preliminary* GEP Stack Height Value
01A7595	45.42	0.00	78.49	78.49
01B7595	45.42	0.00	78.49	78.49
01C7595	45.42	0.00	78.49	78.49
02A7595	45.42	0.00	78.49	78.49
02B7595	45.42	0.00	78.49	78.49
02C7595	45.42	0.00	78.49	78.49
03A7595	45.42	0.00	78.49	78.49
03B7595	45.42	0.00	78.49	78.49
03C7595	45.42	0.00	78.49	78.49
COOL1_01	19.20	0.00	78.49	78.49
COOL1_02	19.20	0.00	78.49	78.49
COOL1_03	19.20	0.00	78.49	78.49
COOL1_04	19.20	0.00	78.49	78.49
COOL1_05	19.20	0.00	78.49	78.49
COOL1_06	19.20	0.00	78.49	78.49
COOL1_07	19.20	0.00	78.49	78.49
COOL1_08	19.20	0.00	78.49	78.49
COOL1_09	19.80	0.00	78.49	78.49
COOL1_10	19.20	0.00	78.49	78.49
COOL1_11	19.20	0.00	78.49	78.49
COOL1_12	19.20	0.00	78.49	78.49
COOL1_13	19.20	0.00	78.49	78.49
COOL1_14	19.20	0.00	78.49	78.49
COOL1_15	19.20	0.00	78.49	78.49
COOL1_16	19.20	0.00	78.49	78.49
COOL1_17	19.20	0.00	78.49	78.49
COOL1_18	19.20	0.00	78.49	78.49
COOL1_19	19.20	0.00	78.49	78.49
COOL1_20	19.20	0.00	78.49	78.49
COOL1_21	19.20	0.00	78.49	78.49
COOL1_22	19.20	0.00	78.49	78.49
COOL2_01	19.20	0.00	78.49	78.49
COOL2_02	19.20	0.00	78.49	78.49
COOL2_03	19.20	0.00	78.49	78.49
COOL2_04	19.20	0.00	78.49	78.49
COOL2_05	19.20	0.00	78.49	78.49
COOL2_06	19.20	0.00	78.49	78.49
COOL2_07	19.20	0.00	78.49	78.49
COOL2_08	19.20	0.00	78.49	78.49
COOL2_09	19.20	0.00	78.49	78.49
COOL2_10	19.20	0.00	78.49	78.49
COOL2_11	19.20	0.00	78.49	78.49
COOL2_12	19.20	0.00	78.49	78.49
COOL2_13	19.20	0.00	78.49	78.49
COOL2_14	19.20	0.00	78.49	78.49
COOL2_15	19.20	0.00	78.49	78.49
COOL2_16	19.20	0.00	78.49	78.49
COOL2_17	19.20	0.00	78.49	78.49
COOL2_18	19.20	0.00	78.49	78.49
COOL2_19	19.20	0.00	78.49	78.49

COOL2_20	19.20	0.00	78.49	78.49
COOL2_21	19.20	0.00	78.49	78.49
COOL2_22	19.20	0.00	78.49	78.49
COOL3_01	19.20	0.00	78.49	78.49
COOL3_02	19.20	0.00	78.49	78.49
COOL3_03	19.20	0.00	78.49	78.49
COOL3_04	19.20	0.00	78.49	78.49
COOL3_05	19.20	0.00	78.49	78.49
COOL3_06	19.20	0.00	78.49	78.49
COOL3_07	19.20	0.00	78.49	78.49
COOL3_08	19.20	0.00	78.49	78.49
COOL3_09	19.20	0.00	78.49	78.49
COOL3_10	19.20	0.00	78.49	78.49
COOL3_11	19.20	0.00	78.49	78.49
COOL3_12	19.20	0.00	78.49	78.49
COOL3_13	19.20	0.00	78.49	78.49
COOL3_14	19.20	0.00	78.49	78.49
COOL3_15	19.20	0.00	78.49	78.49
COOL3_16	19.20	0.00	78.49	78.49
COOL3_17	19.20	0.00	78.49	78.49
COOL3_18	19.20	0.00	78.49	78.49
COOL3_19	19.20	0.00	78.49	78.49
COOL3_20	19.20	0.00	78.49	78.49
COOL3_21	19.20	0.00	78.49	78.49
COOL3_22	19.20	0.00	78.49	78.49
COOL1_23	19.20	0.00	78.49	78.49
COOL1_24	19.20	0.00	78.49	78.49
COOL1_25	19.20	0.00	78.49	78.49
COOL1_26	19.20	0.00	78.49	78.49
COOL2_23	19.20	0.00	78.49	78.49
COOL2_24	19.20	0.00	78.49	78.49
COOL2_25	19.20	0.00	78.49	78.49
COOL2_26	19.20	0.00	78.49	78.49
COOL3_23	19.20	0.00	78.49	78.49
COOL3_24	19.20	0.00	78.49	78.49
COOL3_25	19.20	0.00	78.49	78.49
COOL3_26	19.20	0.00	78.49	78.49
FULHEAT3	9.14	-4.00	82.49	82.49
FULHEAT2	9.14	-4.00	82.49	82.49
FULHEAT1	9.14	-4.00	82.49	82.49

* Results are based on Determinants 1 & 2 on pages 1 & 2 of the GEP Technical Support Document. Determinant 3 may be investigated for additional stack height credit. Final values result after Determinant 3 has been taken into consideration.

** Results were derived from Equation 1 on page 6 of GEP Technical Support Document. Values have been adjusted for any stack-building base elevation differences.

Note: Criteria for determining stack heights for modeling emission limitations for a source can be found in Table 3.1 of the GEP Technical Support Document.

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BPIP output is in meters

SO	BUILDHGT	01A7595	31.39	31.39	31.39	31.39	31.39	31.39
SO	BUILDHGT	01A7595	31.39	31.39	31.39	31.39	31.39	31.39
SO	BUILDHGT	01A7595	31.39	31.39	31.39	31.39	31.39	31.39
SO	BUILDHGT	01A7595	31.39	31.39	31.39	31.39	31.39	31.39
SO	BUILDHGT	01A7595	31.39	31.39	31.39	31.39	31.39	31.39
SO	BUILDHGT	01A7595	31.39	31.39	31.39	31.39	31.39	31.39
SO	BUILDWID	01A7595	43.42	43.33	41.93	39.26	35.39	30.44
SO	BUILDWID	01A7595	24.57	17.96	10.80	16.56	23.30	29.34
SO	BUILDWID	01A7595	34.48	38.57	41.50	43.16	43.51	42.54
SO	BUILDWID	01A7595	43.42	43.33	41.93	39.26	35.39	30.44
SO	BUILDWID	01A7595	24.57	17.96	10.80	16.56	23.30	29.34
SO	BUILDWID	01A7595	34.48	38.57	41.50	43.16	43.51	42.54
SO	BUILDLEN	01A7595	16.56	23.30	29.34	34.48	38.57	41.50
SO	BUILDLEN	01A7595	43.16	43.51	42.54	43.42	43.33	41.93
SO	BUILDLEN	01A7595	39.26	35.39	30.44	24.57	17.96	10.80
SO	BUILDLEN	01A7595	16.56	23.30	29.34	34.48	38.57	41.50
SO	BUILDLEN	01A7595	43.16	43.51	42.54	43.42	43.33	41.93
SO	BUILDLEN	01A7595	39.26	35.39	30.44	24.57	17.96	10.80
SO	XBADJ	01A7595	-13.31	-21.39	-28.82	-35.38	-40.86	-45.10
SO	XBADJ	01A7595	-47.98	-49.39	-49.30	-49.29	-47.95	-45.16
SO	XBADJ	01A7595	-41.00	-35.59	-29.10	-21.72	-13.69	-5.24

```
SO XBADJ     01A7595    -3.26    -1.91    -0.51     0.90     2.29     3.61
SO XBADJ     01A7595     4.82     5.88     6.76     5.87     4.62     3.23
SO XBADJ     01A7595     1.74     0.20    -1.34    -2.85    -4.27   -99.58
SO YBADJ     01A7595    27.58    26.29    24.20    21.37    17.90    13.88
SO YBADJ     01A7595     9.44     4.71    -0.16    -5.03    -9.74   -14.15
SO YBADJ     01A7595   -18.14   -21.58   -24.36   -26.40   -27.63   -28.03
SO YBADJ     01A7595   -27.58   -26.29   -24.20   -21.37   -17.90   -13.88
SO YBADJ     01A7595    -9.44    -4.71     0.16     5.03     9.74    14.15
SO YBADJ     01A7595    18.14    21.58    24.36    26.40    27.63    29.79


SO BUILDHGT  01B7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT  01B7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT  01B7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT  01B7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT  01B7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT  01B7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID  01B7595    43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID  01B7595    24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID  01B7595    34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID  01B7595    43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID  01B7595    24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID  01B7595    34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN  01B7595    16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN  01B7595    43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN  01B7595    39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN  01B7595    16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN  01B7595    43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN  01B7595    39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ     01B7595   -13.18   -21.42   -29.00   -35.71   -41.33   -45.70
SO XBADJ     01B7595   -48.67   -50.17   -50.14   -50.17   -48.84   -46.03
SO XBADJ     01B7595   -41.83   -36.35   -29.76   -22.28   -14.11    -5.52
SO XBADJ     01B7595    -3.38    -1.89    -0.33     1.23     2.76     4.20
SO XBADJ     01B7595     5.52     6.66     7.61     6.75     5.51     4.10
SO XBADJ     01B7595     2.57     0.96    -0.68    -2.30    -3.85    -5.28
SO YBADJ     01B7595    28.46    27.18    25.07    22.20    18.65    14.54
SO YBADJ     01B7595     9.99     5.13     0.12    -4.90    -9.77   -14.34
SO YBADJ     01B7595   -18.47   -22.04   -24.95   -27.09   -28.42   -28.88
SO YBADJ     01B7595   -28.46   -27.18   -25.07   -22.20   -18.65   -14.54
SO YBADJ     01B7595    -9.99    -5.13    -0.12     4.90     9.77    14.34
SO YBADJ     01B7595    18.47    22.04    24.95    27.09    28.42    28.88


SO BUILDHGT  01C7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT  01C7595    31.39    31.39    26.82    31.39    31.39    31.39
SO BUILDHGT  01C7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT  01C7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT  01C7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT  01C7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID  01C7595    43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID  01C7595    24.57    17.96    15.85    16.56    23.30    29.34
SO BUILDWID  01C7595    34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID  01C7595    43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID  01C7595    24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID  01C7595    34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN  01C7595    16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN  01C7595    43.16    43.51    22.55    43.42    43.33    41.93
SO BUILDLEN  01C7595    39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN  01C7595    16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN  01C7595    43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN  01C7595    39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ     01C7595    31.22   -22.09   -29.42   -35.85   -41.20   -45.29
SO XBADJ     01C7595   -48.01   -49.26  -119.00   -48.87   -47.41   -67.51
SO XBADJ     01C7595   -69.82   -34.76   -68.08   -64.07   -58.12   -50.41
SO XBADJ     01C7595   -47.79    -1.21     0.08     1.38     2.63     3.80
SO XBADJ     01C7595     4.85     5.76     6.49     5.45     4.07    25.58
SO XBADJ     01C7595    30.57    34.63    37.64    -3.74    40.17    39.61
SO YBADJ     01C7595    35.15    25.74    23.53    20.61    17.07    13.00
SO YBADJ     01C7595     8.55     3.83   -11.18    -5.81   -10.44    25.10
SO YBADJ     01C7595    16.64   -21.91    -1.53   -10.69   -19.52   -27.76
SO YBADJ     01C7595   -35.15   -25.74   -23.53   -20.61   -17.07   -13.00
SO YBADJ     01C7595    -8.55    -3.83     1.01     5.81    10.44   -25.10
SO YBADJ     01C7595   -16.64    -7.67     1.53    26.43    19.52    27.76


SO BUILDHGT  02A7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT  02A7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT  02A7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT  02A7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT  02A7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT  02A7595    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID  02A7595    43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID  02A7595    24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID  02A7595    34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID  02A7595    43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID  02A7595    24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID  02A7595    34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN  02A7595    16.56    23.30    29.34    34.48    38.57    41.50
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SO BUILDLEN 02A7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN 02A7595     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN 02A7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN 02A7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN 02A7595     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    02A7595   -105.09  -109.15   -27.86   -34.28   -39.67   -43.85
SO XBADJ    02A7595    -46.70   -48.13   -48.09   -48.17   -46.96   -44.33
SO XBADJ    02A7595    -40.34   -35.14   -28.86   -21.71   -13.89    -5.66
SO XBADJ    02A7595     -3.88    -2.72    -1.48    -0.20     1.10     2.35
SO XBADJ    02A7595      3.54     4.62     5.56     4.75     3.63     2.40
SO XBADJ    02A7595      1.09    -0.25    -1.58    -2.87    -4.06    -5.14
SO YBADJ    02A7595     12.40    -4.60    23.36    20.72    17.44    13.64
SO YBADJ    02A7595      9.42     4.92     0.26    -4.40    -8.93   -13.19
SO YBADJ    02A7595    -17.04   -20.38   -23.10   -25.12   -26.37   -26.83
SO YBADJ    02A7595    -26.46   -25.30   -23.36   -20.72   -17.44   -13.64
SO YBADJ    02A7595     -9.42    -4.92    -0.26     4.40     8.93    13.19
SO YBADJ    02A7595     17.04    20.38    23.10    25.12    26.37    26.83

SO BUILDHGT 02B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 02B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 02B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 02B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 02B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 02B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID 02B7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID 02B7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID 02B7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID 02B7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID 02B7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID 02B7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN 02B7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN 02B7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN 02B7595     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN 02B7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN 02B7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN 02B7595     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    02B7595    -13.05   -21.07   -28.45   -34.96   -40.42   -44.64
SO XBADJ    02B7595    -47.51   -48.93   -48.87   -48.89   -47.61   -44.88
SO XBADJ    02B7595    -40.78   -35.45  -108.87  -108.81    31.48   -98.87
SO XBADJ    02B7595     -3.51    -2.23    -0.89     0.48     1.84     3.14
SO XBADJ    02B7595      4.35     5.42     6.33     5.48     4.28     2.95
SO XBADJ    02B7595      1.53     0.07    -1.40    -2.83    -4.16    -5.38
SO YBADJ    02B7595     27.19    25.94    23.91    21.16    17.76    13.82
SO YBADJ    02B7595      9.46     4.81     0.02    -4.77    -9.42   -13.78
SO YBADJ    02B7595    -17.72   -21.13    24.73     8.10   -35.61   -25.41
SO YBADJ    02B7595    -27.19   -25.94   -23.91   -21.16   -17.76   -13.82
SO YBADJ    02B7595     -9.46    -4.81    -0.02     4.77     9.42    13.78
SO YBADJ    02B7595     17.72    21.13    23.89    25.93    27.18    27.60

SO BUILDHGT 02C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 02C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 02C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 02C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 02C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 02C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID 02C7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID 02C7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID 02C7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID 02C7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID 02C7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID 02C7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN 02C7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN 02C7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN 02C7595     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN 02C7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN 02C7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN 02C7595     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    02C7595     32.05   -21.28   -28.55   -34.94   -40.28   -44.39
SO XBADJ    02C7595    -47.15   -48.48   -48.34   -48.30   -46.97   -44.21
SO XBADJ    02C7595    -40.11   -34.79   -68.07   -21.17   -13.29  -144.50
SO XBADJ    02C7595    -48.62    -2.02    -0.79     0.46     1.70     2.89
SO XBADJ    02C7595      3.99     4.97     5.80     4.88     3.63     2.28
SO XBADJ    02C7595      0.85    -0.60    -2.03    -3.40    40.60    40.25
SO YBADJ    02C7595     34.15    25.30    23.24    20.48    17.09    13.19
SO YBADJ    02C7595      8.88     4.31    -0.40    -5.09    -9.63   -13.88
SO YBADJ    02C7595    -17.70   -20.99    -0.24   -25.57   -26.73   -24.44
SO YBADJ    02C7595    -34.15   -25.30   -23.24   -20.48   -17.09   -13.19
SO YBADJ    02C7595     -8.88    -4.31     0.40     5.09     9.63    13.88
SO YBADJ    02C7595     17.70    20.99    23.64    25.57    18.30    26.63

SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
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SO BUILDHGT O3A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID O3A7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID O3A7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID O3A7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID O3A7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID O3A7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID O3A7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN O3A7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN O3A7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN O3A7595     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN O3A7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN O3A7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN O3A7595     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    O3A7595   -105.97  -109.86  -110.42   -35.01   -40.32   -44.41
SO XBADJ    O3A7595    -47.15   -48.46   -48.29   -48.24   -46.89   -44.11
SO XBADJ    O3A7595    -40.00   -34.67   -28.29   -21.05   -13.17    -4.88
SO XBADJ    O3A7595     -3.08    -1.92    -0.71     0.53     1.75     2.92
SO XBADJ    O3A7595      3.99     4.95     5.76     4.82     3.55     2.18
SO XBADJ    O3A7595      0.74    -0.72    -2.15    -3.53    -4.79  -145.00
SO YBADJ    O3A7595     11.56    -5.58   -22.55    20.37    16.98    13.07
SO YBADJ    O3A7595      8.76     4.19    -0.51    -5.20    -9.73   -13.96
SO YBADJ    O3A7595    -17.77   -21.03   -23.66   -25.57   -26.71   -27.03
SO YBADJ    O3A7595    -26.53   -25.22   -23.15   -20.37   -16.98   -13.07
SO YBADJ    O3A7595     -8.76    -4.19     0.51     5.20     9.73    13.96
SO YBADJ    O3A7595     17.77    21.03    23.66    25.57    26.71    29.22

SO BUILDHGT O3B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID O3B7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID O3B7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID O3B7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID O3B7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID O3B7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID O3B7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN O3B7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN O3B7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN O3B7595     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN O3B7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN O3B7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN O3B7595     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    O3B7595    -13.06   -21.00   -28.30   -34.75   -40.13   -67.76
SO XBADJ    O3B7595    -47.12   -48.51   -48.42   -48.44   -47.16   -44.45
SO XBADJ    O3B7595    -40.38   -35.09  -109.21  -109.09  -105.66    40.08
SO XBADJ    O3B7595     -3.50    -2.30    -1.03     0.27     1.56    26.26
SO XBADJ    O3B7595      3.96     5.00     5.89     5.02     3.83     2.52
SO XBADJ    O3B7595      1.13    -0.29    -1.70    -3.06   -48.90   -50.87
SO YBADJ    O3B7595     26.73    25.49    23.48    20.76    17.40   -25.37
SO YBADJ    O3B7595      9.22     4.65    -0.07    -4.78    -9.35   -13.64
SO YBADJ    O3B7595    -17.51   -20.84    24.43     7.74    -9.19   -28.03
SO YBADJ    O3B7595    -26.73   -25.49   -23.48   -20.76   -17.40    25.37
SO YBADJ    O3B7595     -9.22    -4.65     0.07     4.78     9.35    13.64
SO YBADJ    O3B7595     17.51    20.84    23.55    25.54    35.50    28.03

SO BUILDHGT O3C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID O3C7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID O3C7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID O3C7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID O3C7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID O3C7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID O3C7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN O3C7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN O3C7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN O3C7595     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN O3C7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN O3C7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN O3C7595     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    O3C7595     31.27   -21.50   -28.74   -35.12   -40.43   -44.50
SO XBADJ    O3C7595    -47.23   -48.52   -48.34   -48.26   -46.89   -66.04
SO XBADJ    O3C7595    -39.96   -34.62   -28.22   -20.96  -149.66    -4.77
SO XBADJ    O3C7595    -47.83    -1.81    -0.59     0.64     1.85     3.01
SO XBADJ    O3C7595      4.07     5.01     5.80     4.84     3.56    24.11
SO XBADJ    O3C7595      0.71    -0.77    -2.23    -3.61    -4.89    -6.02
SO YBADJ    O3C7595     33.57    25.23    23.13    20.34    16.92    12.99
SO YBADJ    O3C7595      8.67     4.09    -0.62    -5.32    -9.85    25.69
SO YBADJ    O3C7595    -17.88   -21.14   -23.76   -25.65    -0.45   -27.07
SO YBADJ    O3C7595    -33.57   -25.23   -23.13   -20.34   -16.92   -12.99
SO YBADJ    O3C7595     -8.67    -4.09     0.62     5.32     9.85   -25.69
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SO	YBADJ	03C7595	17.88	21.14	23.76	25.65	26.77	27.07
SO	BUILDHGT	COOL1_01	14.94	31.39	31.39	31.39	31.39	31.39
SO	BUILDHGT	COOL1_01	31.39	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL1_01	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL1_01	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL1_01	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL1_01	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDWID	COOL1_01	62.37	43.33	41.93	39.26	35.39	30.44
SO	BUILDWID	COOL1_01	24.57	215.62	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL1_01	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDWID	COOL1_01	62.37	97.33	129.33	157.39	180.68	198.48
SO	BUILDWID	COOL1_01	210.24	215.62	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL1_01	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDLEN	COOL1_01	215.91	23.30	29.34	34.48	38.57	41.50
SO	BUILDLEN	COOL1_01	43.16	69.55	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL1_01	157.39	180.68	198.48	210.24	215.62	214.45
SO	BUILDLEN	COOL1_01	215.91	211.84	201.33	184.70	162.46	135.28
SO	BUILDLEN	COOL1_01	104.00	69.55	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL1_01	157.39	180.68	198.48	210.24	215.62	214.45
SO	XBADJ	COOL1_01	-203.53	-169.03	-173.66	-99.86	-105.33	-107.60
SO	XBADJ	COOL1_01	-106.60	-45.73	-10.31	-8.06	-9.29	-10.24
SO	XBADJ	COOL1_01	-10.88	-11.19	-11.16	-10.79	-10.09	-9.08
SO	XBADJ	COOL1_01	-12.38	-15.81	-18.76	-21.14	-22.88	-23.93
SO	XBADJ	COOL1_01	-24.24	-23.82	-22.68	-54.32	-88.04	-119.09
SO	XBADJ	COOL1_01	-146.51	-169.49	-187.32	-199.46	-205.53	-205.36
SO	YBADJ	COOL1_01	-23.13	23.06	-4.62	26.93	12.18	-2.95
SO	YBADJ	COOL1_01	-17.99	-97.72	-98.14	-95.57	-90.11	-81.90
SO	YBADJ	COOL1_01	-71.21	-58.35	-43.72	-27.76	-10.95	6.18
SO	YBADJ	COOL1_01	23.13	39.37	54.42	67.82	79.15	88.08
SO	YBADJ	COOL1_01	94.33	97.72	98.14	95.57	90.11	81.90
SO	YBADJ	COOL1_01	71.21	58.35	43.72	27.76	10.95	-6.18
SO	BUILDHGT	COOL1_02	14.94	31.39	31.39	31.39	31.39	31.39
SO	BUILDHGT	COOL1_02	31.39	31.39	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL1_02	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL1_02	14.94	14.94	14.94	14.94	31.39	31.39
SO	BUILDHGT	COOL1_02	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL1_02	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDWID	COOL1_02	62.37	43.33	41.93	39.26	35.39	30.44
SO	BUILDWID	COOL1_02	24.57	17.96	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL1_02	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDWID	COOL1_02	62.37	97.33	129.33	157.39	35.39	30.44
SO	BUILDWID	COOL1_02	210.24	215.62	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL1_02	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDLEN	COOL1_02	215.91	23.30	29.34	34.48	38.57	41.50
SO	BUILDLEN	COOL1_02	43.16	43.51	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL1_02	157.39	180.68	198.48	210.24	215.62	214.45
SO	BUILDLEN	COOL1_02	215.91	211.84	201.33	184.70	38.57	41.50
SO	BUILDLEN	COOL1_02	104.00	69.55	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL1_02	157.39	180.68	198.48	210.24	215.62	214.45
SO	XBADJ	COOL1_02	-186.99	-153.41	-159.45	-160.63	-95.16	-99.95
SO	XBADJ	COOL1_02	-101.70	-100.36	-11.27	-11.95	-16.00	-19.56
SO	XBADJ	COOL1_02	-22.52	-24.81	-26.33	-27.06	-26.97	-26.05
SO	XBADJ	COOL1_02	-28.93	-31.43	-32.98	-33.53	56.58	58.45
SO	XBADJ	COOL1_02	-29.14	-25.82	-21.72	-50.42	-81.33	-109.77
SO	XBADJ	COOL1_02	-134.87	-155.88	-172.14	-183.18	-188.65	-188.39
SO	YBADJ	COOL1_02	-19.24	29.77	4.70	-20.51	25.79	12.23
SO	YBADJ	COOL1_02	-1.71	-15.60	-81.17	-79.03	-74.49	-67.68
SO	YBADJ	COOL1_02	-58.82	-48.17	-36.06	-22.86	-8.95	5.22
SO	YBADJ	COOL1_02	19.24	32.67	45.11	56.17	-25.79	-12.23
SO	YBADJ	COOL1_02	78.06	80.84	81.17	79.03	74.49	67.68
SO	YBADJ	COOL1_02	58.82	48.17	36.06	22.86	8.95	-5.22
SO	BUILDHGT	COOL1_03	14.94	31.39	31.39	31.39	14.94	31.39
SO	BUILDHGT	COOL1_03	31.39	31.39	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL1_03	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL1_03	14.94	14.94	14.94	14.94	14.94	31.39
SO	BUILDHGT	COOL1_03	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL1_03	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDWID	COOL1_03	62.37	43.33	41.93	39.26	180.68	30.44
SO	BUILDWID	COOL1_03	24.57	17.96	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL1_03	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDWID	COOL1_03	62.37	97.33	129.33	157.39	180.68	30.44
SO	BUILDWID	COOL1_03	210.24	215.62	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL1_03	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDLEN	COOL1_03	215.91	23.30	29.34	34.48	162.46	41.50
SO	BUILDLEN	COOL1_03	43.16	43.51	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL1_03	157.39	180.68	198.48	210.24	215.62	214.45
SO	BUILDLEN	COOL1_03	215.91	211.84	201.33	184.70	162.46	41.50
SO	BUILDLEN	COOL1_03	104.00	69.55	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL1_03	157.39	180.68	198.48	210.24	215.62	214.45
SO	XBADJ	COOL1_03	-171.17	-138.17	-145.23	-147.88	-118.50	-91.23
SO	XBADJ	COOL1_03	-95.42	-96.72	-10.38	-13.83	-20.60	-26.74
SO	XBADJ	COOL1_03	-32.06	-36.41	-39.66	-41.70	-42.47	-41.95

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SO XBADJ    COOL1_03  -44.74  -46.68  -47.20  -46.28  -43.96   49.73
SO XBADJ    COOL1_03  -35.42  -29.46  -22.61  -48.54  -76.73 -102.59
SO XBADJ    COOL1_03 -125.33 -144.27 -158.82 -168.54 -173.15 -172.49
SO YBADJ    COOL1_03  -17.35   34.37   11.88  -10.97  -53.93   25.55
SO YBADJ    COOL1_03   12.93   -0.09  -65.27  -63.22  -59.24  -53.47
SO YBADJ    COOL1_03  -46.07  -37.27  -27.34  -16.58   -5.32    6.11
SO YBADJ    COOL1_03   17.35   28.07   37.93   46.64   53.93  -25.55
SO YBADJ    COOL1_03   63.42   65.34   65.27   63.22   59.24   53.47
SO YBADJ    COOL1_03   46.07   37.27   27.34   16.58    5.32   -6.11

SO BUILDHGT COOL1_04   14.94   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL1_04   14.94   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL1_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_04   62.37   43.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL1_04  210.24   17.96   10.80   16.56   23.30  201.33
SO BUILDWID COOL1_04  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_04   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_04  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_04  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_04  215.91   23.30   29.34   34.48   38.57  135.28
SO BUILDLEN COOL1_04  104.00   43.51   42.54   43.42   43.33  129.33
SO BUILDLEN COOL1_04  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_04  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_04  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_04  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_04 -154.34 -165.30 -130.33 -134.65 -134.87  -86.22
SO XBADJ    COOL1_04  -62.49  -93.49  -94.80  -94.81  -92.11  -35.01
SO XBADJ    COOL1_04  -42.80  -49.29  -54.28  -57.62  -59.20  -58.99
SO XBADJ    COOL1_04  -61.57  -62.79  -62.09  -59.51  -55.13  -49.06
SO XBADJ    COOL1_04  -41.51  -32.69  -22.89  -45.86  -71.16  -94.31
SO XBADJ    COOL1_04 -114.59 -131.39 -144.20 -152.63 -156.42 -155.45
SO YBADJ    COOL1_04  -14.67   24.19   20.15   -0.24  -20.62  -44.96
SO YBADJ    COOL1_04  -47.51   16.64    3.93   -8.90  -21.46  -38.57
SO YBADJ    COOL1_04  -32.84  -26.11  -18.58  -10.49   -2.08    6.39
SO YBADJ    COOL1_04   14.67   22.50   29.65   35.90   41.05   44.96
SO YBADJ    COOL1_04   47.51   48.61   48.23   46.39   43.13   38.57
SO YBADJ    COOL1_04   32.84   26.11   18.58   10.49    2.08   -6.39

SO BUILDHGT COOL1_05   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_05   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_05   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_05   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_05   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL1_05   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_05   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_05  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL1_05   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_05   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_05  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL1_05   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_05  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL1_05  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL1_05   39.26  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_05  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_05  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL1_05   39.26  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_05 -138.43 -149.85 -115.82 -121.50 -123.50 -121.74
SO XBADJ    COOL1_05  -55.64  -32.61   -8.59  -96.08  -96.12  -93.25
SO XBADJ    COOL1_05  -87.54  -60.49  -67.28  -72.03  -74.59  -74.89
SO XBADJ    COOL1_05  -77.48  -78.23  -76.61  -72.66  -66.50  -58.32
SO XBADJ    COOL1_05  -48.36  -36.94  -24.40  -44.58  -67.15   51.32
SO XBADJ    COOL1_05   48.28 -120.19 -131.20 -138.21 -141.03 -139.56
SO YBADJ    COOL1_05  -13.40   28.21   26.79    8.82   -9.42  -27.37
SO YBADJ    COOL1_05  -33.09  -33.22  -32.34    7.01   -6.01  -18.85
SO YBADJ    COOL1_05  -31.11  -14.73   -9.33   -3.64    2.16    7.90
SO YBADJ    COOL1_05   13.40   18.48   23.01   26.84   29.85   31.96
SO YBADJ    COOL1_05   33.09   33.22   32.34   30.48   27.69   18.85
SO YBADJ    COOL1_05   31.11   14.73    9.33    3.64   -2.16   -7.90

SO BUILDHGT COOL1_06   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_06   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL1_06   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_06   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_06   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_06   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_06   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_06  210.24  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL1_06   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_06   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_06  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_06   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_06  215.91   23.30   29.34   34.48   38.57   41.50
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SO BUILDLEN COOL1_06  104.00   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL1_06   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_06  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_06  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_06   39.26   35.39  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_06 -122.51 -134.72 -101.93 -109.29 -113.33 -113.92
SO XBADJ    COOL1_06  -50.40  -30.13   -8.93  -20.94 -101.99 -101.66
SO XBADJ    COOL1_06  -98.23  -91.82  -81.51  -87.40  -90.63  -91.11
SO XBADJ    COOL1_06  -93.41  -93.37  -90.49  -84.87  -76.67  -66.14
SO XBADJ    COOL1_06  -53.59  -39.42  -24.06  -41.43  -61.28  -79.27
SO XBADJ    COOL1_06   58.98   56.44 -116.97 -122.84 -124.99 -123.33
SO YBADJ    COOL1_06  -10.24   34.08   35.20   19.51    3.23  -13.15
SO YBADJ    COOL1_06  -17.72  -17.18  -16.11  -14.55    9.13   -4.96
SO YBADJ    COOL1_06  -18.90  -32.26   -1.51    1.60    4.65    7.56
SO YBADJ    COOL1_06   10.24   12.61   14.60   16.15   17.20   17.73
SO YBADJ    COOL1_06   17.72   17.18   16.11   14.55   12.55   10.17
SO YBADJ    COOL1_06   18.90   32.26    1.51   -1.60   -4.65   -7.56


SO BUILDHGT COOL1_07   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_07   31.39   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL1_07   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_07   14.94   14.94   14.94   31.39   14.94   14.94
SO BUILDHGT COOL1_07   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_07   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_07   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_07   24.57  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL1_07   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_07   62.37   97.33  129.33   39.26  180.68  198.48
SO BUILDWID COOL1_07  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_07  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_07  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL1_07   43.16   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL1_07   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_07  215.91  211.84  201.33   34.48  162.46  135.28
SO BUILDLEN COOL1_07  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_07  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_07 -106.12 -102.89 -127.49  -96.71 -102.85 -105.86
SO XBADJ    COOL1_07 -105.65  -27.55   -9.26  -24.17  -42.07 -110.29
SO XBADJ    COOL1_07 -109.22 -104.83  -96.14 -103.20 -107.14 -107.82
SO XBADJ    COOL1_07 -109.79 -108.95 -104.79   62.23  -87.15  -74.20
SO XBADJ    COOL1_07  -59.00  -42.00  -23.73  -38.20  -55.26  -70.63
SO XBADJ    COOL1_07  -83.86  -94.54 -102.34 -107.04 -108.48 -106.63
SO YBADJ    COOL1_07   -7.02   -6.59   20.83   30.50   16.24    1.48
SO YBADJ    COOL1_07  -13.32   -0.67    0.59    1.84    3.03    9.34
SO YBADJ    COOL1_07   -6.32  -21.78    6.56    7.00    7.22    7.23
SO YBADJ    COOL1_07    7.02    6.59    5.97  -30.50    4.19    3.10
SO YBADJ    COOL1_07    1.92    0.67   -0.59   -1.84   -3.03   -4.13
SO YBADJ    COOL1_07   -5.10   -5.92   -6.56   -7.00   -7.22   -7.23


SO BUILDHGT COOL1_08   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_08   31.39   31.39   14.94   14.94   14.94   31.39
SO BUILDHGT COOL1_08   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL1_08   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL1_08   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_08   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_08   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_08   24.57   17.96  214.45  215.91  211.84   29.34
SO BUILDWID COOL1_08   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL1_08   62.37   97.33  129.33  157.39   35.39   30.44
SO BUILDWID COOL1_08  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_08  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_08  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL1_08   43.16   43.51   32.99   62.37   97.33   41.93
SO BUILDLEN COOL1_08   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL1_08  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL1_08  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_08  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_08  -89.00  -86.40 -112.12 -118.19  -91.09  -96.47
SO XBADJ    COOL1_08  -98.92  -98.36   -8.36  -26.27  -47.12 -118.12
SO XBADJ    COOL1_08 -119.60 -117.44 -111.71 -119.08 -123.94 -125.04
SO XBADJ    COOL1_08 -126.91 -125.44 -120.15 -111.22   52.51   54.97
SO XBADJ    COOL1_08  -65.73  -45.88  -24.63  -36.10  -50.21  -62.80
SO XBADJ    COOL1_08  -73.48  -81.92  -87.88  -91.17  -91.68  -89.41
SO YBADJ    COOL1_08   -4.91   -1.55   28.66   11.30   28.85   15.94
SO YBADJ    COOL1_08    2.55  -10.91   17.81   18.95   19.52   24.70
SO YBADJ    COOL1_08    7.45  -10.02  -27.19   13.73   11.10    8.13
SO YBADJ    COOL1_08    4.91    1.55   -1.86   -5.22  -28.85  -15.94
SO YBADJ    COOL1_08  -13.96  -16.13  -17.81  -18.95  -19.52  -19.49
SO YBADJ    COOL1_08  -18.87  -17.68  -15.95  -13.73  -11.10   -8.13


SO BUILDHGT COOL1_09   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_09   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL1_09   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL1_09   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL1_09   14.94   14.94   14.94   14.94   14.94   14.94
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SO BUILDHGT COOL1_09    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_09    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL1_09    24.57    17.96    10.80   215.91   211.84   201.33
SO BUILDWID COOL1_09    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL1_09    62.37    97.33   129.33   157.39   180.68    30.44
SO BUILDWID COOL1_09   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_09   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_09   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL1_09    43.16    43.51    42.54    62.37    97.33   129.33
SO BUILDLEN COOL1_09    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL1_09   215.91   211.84   201.33   184.70   162.46    41.50
SO BUILDLEN COOL1_09   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_09   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL1_09   -73.68   -71.84   -67.82  -106.45  -110.89   -88.96
SO XBADJ    COOL1_09   -93.90   -95.99   -95.17   -29.33   -52.79   -74.64
SO XBADJ    COOL1_09  -129.91  -129.63  -125.41  -133.88  -139.38  -140.65
SO XBADJ    COOL1_09  -142.23  -140.00  -133.51  -122.96  -108.68    47.46
SO XBADJ    COOL1_09   -70.74   -48.24   -24.28   -33.04   -44.54   -54.69
SO XBADJ    COOL1_09   -63.17   -69.73   -74.18   -76.37   -76.24   -73.79
SO YBADJ    COOL1_09    -1.86     4.12     9.98    21.61     5.79    29.65
SO YBADJ    COOL1_09    17.35     4.53    -8.43    34.27    34.08    32.84
SO YBADJ    COOL1_09    19.19    -0.25   -19.68    18.75    13.47     7.78
SO YBADJ    COOL1_09     1.86    -4.12    -9.98   -15.53   -20.61   -29.65
SO YBADJ    COOL1_09   -28.75   -31.57   -33.43   -34.27   -34.08   -32.84
SO YBADJ    COOL1_09   -30.61   -27.45   -23.45   -18.75   -13.47    -7.78

SO BUILDHGT COOL1_10    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL1_10    31.39    14.94    31.39    31.39    31.39    14.94
SO BUILDHGT COOL1_10    31.39    31.39    31.39    31.39    14.94    14.94
SO BUILDHGT COOL1_10    14.94    14.94    14.94    31.39    31.39    14.94
SO BUILDHGT COOL1_10    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_10    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_10    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL1_10    24.57   215.62    10.80    16.56    23.30   201.33
SO BUILDWID COOL1_10    34.48    38.57    41.50    43.16    69.55    32.99
SO BUILDWID COOL1_10    62.37    97.33   129.33    39.26    35.39   198.48
SO BUILDWID COOL1_10   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_10   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_10   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL1_10    43.16    69.55    42.54    43.42    43.33   129.33
SO BUILDLEN COOL1_10    39.26    35.39    30.44    24.57   215.62   214.45
SO BUILDLEN COOL1_10   215.91   211.84   201.33    34.48    38.57   135.28
SO BUILDLEN COOL1_10   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_10   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL1_10   -57.36   -56.22   -53.37   -93.62  -100.06  -103.47
SO XBADJ    COOL1_10  -103.73   -18.16   -94.89   -95.61   -93.61   -82.66
SO XBADJ    COOL1_10  -140.31  -142.11  -139.58  -132.82  -155.60  -157.18
SO XBADJ    COOL1_10  -158.55  -155.62  -147.95    59.14    61.49   -99.60
SO XBADJ    COOL1_10   -76.66   -51.39   -24.56   -30.45   -39.15   -46.67
SO XBADJ    COOL1_10   -52.76   -57.26   -60.01   -60.94   -60.02   -57.27
SO YBADJ    COOL1_10     0.74     9.51    17.99    32.01    18.26     3.96
SO YBADJ    COOL1_10   -10.46    47.79     8.09    -4.82   -17.58    47.29
SO YBADJ    COOL1_10    32.03    10.59   -11.18   -32.60    16.61     8.06
SO YBADJ    COOL1_10    -0.74    -9.51   -17.99   -32.01   -18.26   -39.23
SO YBADJ    COOL1_10   -44.18   -47.79   -49.95   -50.59   -49.70   -47.29
SO YBADJ    COOL1_10   -43.45   -38.28   -31.96   -24.66   -16.61    -8.06

SO BUILDHGT COOL1_11    14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL1_11    31.39    31.39    14.94    31.39    31.39    31.39
SO BUILDHGT COOL1_11    31.39    31.39    31.39    31.39    14.94    14.94
SO BUILDHGT COOL1_11    14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL1_11    14.94    14.94    14.94    14.94    14.94    31.39
SO BUILDHGT COOL1_11    31.39    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_11    62.37    97.33   129.33   157.39    35.39    30.44
SO BUILDWID COOL1_11    24.57    17.96   214.45    16.56    23.30    29.34
SO BUILDWID COOL1_11    34.48    38.57    41.50    43.16    69.55    32.99
SO BUILDWID COOL1_11    62.37    97.33   129.33   157.39    35.39    30.44
SO BUILDWID COOL1_11   210.24   215.62   214.45   215.91   211.84    29.34
SO BUILDWID COOL1_11    34.48   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_11   215.91   211.84   201.33   184.70    38.57    41.50
SO BUILDLEN COOL1_11    43.16    43.51    32.99    43.42    43.33    41.93
SO BUILDLEN COOL1_11    39.26    35.39    30.44    24.57   215.62   214.45
SO BUILDLEN COOL1_11   215.91   211.84   201.33   184.70    38.57    41.50
SO BUILDLEN COOL1_11   104.00    69.55    32.99    62.37    97.33    41.93
SO BUILDLEN COOL1_11    39.26   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL1_11   -41.67   -41.20   -39.47   -36.55   -89.63   -95.28
SO XBADJ    COOL1_11   -98.03   -97.80    -8.15   -98.10   -98.78   -96.47
SO XBADJ    COOL1_11   -91.22  -154.10  -153.20  -147.65  -171.20  -173.07
SO XBADJ    COOL1_11  -174.25  -170.64  -161.85  -148.15    51.06    53.78
SO XBADJ    COOL1_11   -82.36   -54.42   -24.84   -27.97   -33.98    54.54
SO XBADJ    COOL1_11    51.96   -45.26   -46.39   -46.10   -44.42   -41.38
SO YBADJ    COOL1_11     3.22    14.68    25.70    35.93    30.26    17.58
SO YBADJ    COOL1_11     4.37    -8.97    65.84    10.88    -2.55   -15.90
SO YBADJ    COOL1_11   -28.77    21.01    -2.99   -26.91    19.65     8.34
SO YBADJ    COOL1_11    -3.22   -14.68   -25.70   -35.93   -30.26   -17.58
SO YBADJ    COOL1_11   -59.02   -63.39   -65.84   -66.29   -64.72    15.90
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SO YBADJ    COOL1_11   28.77  -48.71  -40.14  -30.36  -19.65   -8.34

SO BUILDHGT COOL1_12   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_12   31.39   31.39   31.39   14.94   31.39   31.39
SO BUILDHGT COOL1_12   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL1_12   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_12   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_12   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_12   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_12   24.57   17.96   10.80  215.91   23.30   29.34
SO BUILDWID COOL1_12   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL1_12   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_12   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_12   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_12  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_12   43.16   43.51   42.54   62.37   43.33   41.93
SO BUILDLEN COOL1_12   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL1_12  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_12   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_12   39.26   35.39  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_12  -25.18  -25.32  -24.68  -23.30  -21.20  -18.47
SO XBADJ    COOL1_12  -91.56  -94.09  -93.75  -36.45 -103.66 -104.03
SO XBADJ    COOL1_12 -101.23  -95.36 -167.15 -162.95 -187.39 -189.65
SO XBADJ    COOL1_12 -190.73 -186.52 -176.65 -161.40 -141.26 -116.82
SO XBADJ    COOL1_12   48.40  -58.14  -25.69  -25.92  -29.11  -31.41
SO XBADJ    COOL1_12   61.98   59.98  -32.45  -30.80  -28.23  -24.79
SO YBADJ    COOL1_12    5.26   19.56   33.26   45.95   57.24   66.79
SO YBADJ    COOL1_12   19.67    7.22   -5.45   82.78   13.33   -1.11
SO YBADJ    COOL1_12  -15.52  -29.45    6.04  -20.43   23.36    9.19
SO YBADJ    COOL1_12   -5.26  -19.56  -33.26  -45.95  -57.24  -66.79
SO YBADJ    COOL1_12  -19.67  -79.58  -82.43  -82.78  -80.60  -75.98
SO YBADJ    COOL1_12   15.52   29.45  -49.17  -36.83  -23.36   -9.19

SO BUILDHGT COOL1_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_13   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_13   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL1_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_13   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL1_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_13   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_13  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL1_13   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL1_13   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_13  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL1_13  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_13  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_13  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL1_13   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL1_13  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_13  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL1_13  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_13   -8.11   -9.19  -10.00  -10.50  -10.68  -10.53
SO XBADJ    COOL1_13  -10.07   -9.30   -8.24  -96.11  -94.79 -113.59
SO XBADJ    COOL1_13 -113.20 -109.37 -102.22 -179.72 -204.79 -207.15
SO XBADJ    COOL1_13 -207.80 -202.65 -191.33 -174.21 -151.79 -124.75
SO XBADJ    COOL1_13  -93.93  -60.25  -24.75  -21.96  -22.24   48.65
SO XBADJ    COOL1_13  -20.78  -19.09  -16.82  -14.04  -10.83   -7.29
SO YBADJ    COOL1_13    9.23   26.43   42.82   57.91   71.25   82.42
SO YBADJ    COOL1_13   91.08   96.98   99.93   -0.88  -13.79   13.58
SO YBADJ    COOL1_13   -2.71  -18.92  -34.56  -15.33   25.48    8.25
SO YBADJ    COOL1_13   -9.23  -26.43  -42.82  -57.91  -71.25  -82.42
SO YBADJ    COOL1_13  -91.08  -96.98  -99.93  -99.85  -96.73   26.28
SO YBADJ    COOL1_13  -81.86  -70.55  -57.11  -41.93  -25.48   -8.25

SO BUILDHGT COOL1_14   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_14   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_14   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_14   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_14  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_14   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_14  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_14  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_14  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL1_14   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_14  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_14  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_14  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_14  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_14 -206.60 -201.79 -181.94 -183.55 -117.81 -121.65
SO XBADJ    COOL1_14 -121.78  -61.59  -26.36  -23.81  -24.27  -24.00
SO XBADJ    COOL1_14  -22.99  -21.28  -18.93  -16.00  -12.59   -8.79
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SO XBADJ    COOL1_14   -9.31  -10.05  -10.49  -10.61  -10.40   -9.88
SO XBADJ    COOL1_14   -9.06   -7.96   -6.63  -38.56  -73.05 -105.33
SO XBADJ    COOL1_14 -134.41 -159.40 -179.55 -194.24 -203.03 -205.65
SO YBADJ    COOL1_14   -7.37  -24.39    9.14  -20.05   22.27    4.82
SO YBADJ    COOL1_14  -12.77  -95.22  -98.43  -98.65  -95.87  -90.18
SO YBADJ    COOL1_14  -81.74  -70.83  -57.76  -42.94  -26.81   -9.87
SO YBADJ    COOL1_14    7.37   24.39   40.67   55.71   69.06   80.31
SO YBADJ    COOL1_14   89.12   95.22   98.43   98.65   95.87   90.18
SO YBADJ    COOL1_14   81.74   70.83   57.76   42.94   26.81    9.87

SO BUILDHGT COOL1_15   14.94   14.94   31.39   31.39   14.94   31.39
SO BUILDHGT COOL1_15   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_15   62.37   97.33   41.93   39.26  180.68   30.44
SO BUILDWID COOL1_15   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_15  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_15   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_15  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_15  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_15  215.91  211.84   29.34   34.48  162.46   41.50
SO BUILDLEN COOL1_15   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_15  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_15  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_15  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_15  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_15 -189.86 -185.76 -167.12 -170.39 -140.95 -112.93
SO XBADJ    COOL1_15 -115.72 -115.00  -26.08  -26.48  -29.81  -32.23
SO XBADJ    COOL1_15  -33.67  -34.09  -33.47  -31.84  -29.23  -25.74
SO XBADJ    COOL1_15  -26.05  -26.08  -25.31  -23.77  -21.51  -18.60
SO XBADJ    COOL1_15  -15.12  -11.18   -6.91  -35.89  -67.52  -97.10
SO XBADJ    COOL1_15 -123.73 -146.59 -165.01 -178.41 -186.39 -188.70
SO YBADJ    COOL1_15   -4.71  -18.86   17.37   -9.37  -56.25   19.36
SO YBADJ    COOL1_15    3.06  -13.33  -81.48  -81.91  -79.84  -75.36
SO YBADJ    COOL1_15  -68.58  -59.72  -49.04  -36.88  -23.59   -9.59
SO YBADJ    COOL1_15    4.71   18.86   32.43   45.03   56.25   65.77
SO YBADJ    COOL1_15   73.29   78.58   81.48   81.91   79.84   75.36
SO YBADJ    COOL1_15   68.58   59.72   49.04   36.88   23.59    9.59

SO BUILDHGT COOL1_16   14.94   14.94   31.39   31.39   31.39   14.94
SO BUILDHGT COOL1_16   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_16   62.37   97.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL1_16   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_16  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_16   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_16  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_16  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_16  215.91  211.84   29.34   34.48   38.57  135.28
SO BUILDLEN COOL1_16   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_16  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_16  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_16  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_16  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_16 -173.70 -170.30 -152.82 -157.68 -157.76 -108.27
SO XBADJ    COOL1_16 -109.87 -111.89  -25.81  -29.06  -35.15  -40.17
SO XBADJ    COOL1_16  -43.98  -46.45  -47.50  -47.12  -45.30  -42.10
SO XBADJ    COOL1_16  -42.21  -41.54  -39.61  -36.48  -32.23  -27.01
SO XBADJ    COOL1_16  -20.97  -14.29   -7.18  -33.32  -62.18  -89.15
SO XBADJ    COOL1_16 -113.42 -134.23 -150.97 -163.13 -170.32 -172.34
SO YBADJ    COOL1_16   -2.13  -13.51   25.32    0.94  -23.46  -51.73
SO YBADJ    COOL1_16   18.34    2.73  -65.12  -65.75  -64.38  -61.05
SO YBADJ    COOL1_16  -55.87  -49.00  -40.63  -31.03  -20.49   -9.32
SO YBADJ    COOL1_16    2.13   13.51   24.49   34.72   43.89   51.73
SO YBADJ    COOL1_16   58.00   62.51   65.12   65.75   64.38   61.05
SO YBADJ    COOL1_16   55.87   49.00   40.63   31.03   20.49    9.32

SO BUILDHGT COOL1_17   14.94   14.94   31.39   31.39   31.39   14.94
SO BUILDHGT COOL1_17   14.94   14.94   31.39   31.39   14.94   14.94
SO BUILDHGT COOL1_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_17   62.37   97.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL1_17  210.24  215.62   10.80   16.56  211.84  201.33
SO BUILDWID COOL1_17  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_17   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_17  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_17  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_17  215.91  211.84   29.34   34.48   38.57  135.28
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SO BUILDLEN COOL1_17  104.00   69.55   42.54   43.42   97.33  129.33
SO BUILDLEN COOL1_17  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_17  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_17  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_17  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_17 -157.17 -154.45 -138.13 -144.61 -146.70  -99.56
SO XBADJ    COOL1_17  -76.92  -51.95 -110.10 -109.84  -40.48  -48.18
SO XBADJ    COOL1_17  -54.41  -58.99  -61.78  -62.69  -61.69  -58.82
SO XBADJ    COOL1_17  -58.75  -57.39  -54.30  -49.55  -43.30  -35.73
SO XBADJ    COOL1_17  -27.07  -17.60   -7.59  -30.82  -56.85  -81.15
SO XBADJ    COOL1_17 -102.98 -121.69 -136.70 -147.55 -153.93 -155.62
SO YBADJ    COOL1_17    0.37   -8.18   33.32   11.38  -10.92  -37.46
SO YBADJ    COOL1_17  -42.43  -46.12    3.76  -11.72  -48.53  -46.37
SO YBADJ    COOL1_17  -42.80  -37.94  -31.92  -24.93  -17.18   -8.91
SO YBADJ    COOL1_17   -0.37    8.18   16.48   24.29   31.35   37.46
SO YBADJ    COOL1_17   42.43   46.12   48.40   49.21   48.53   46.37
SO YBADJ    COOL1_17   42.80   37.94   31.92   24.93   17.18    8.91

SO BUILDHGT COOL1_18   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_18   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_18   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_18  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL1_18  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_18   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_18  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_18  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_18  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL1_18  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL1_18  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_18  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_18  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_18  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_18 -140.83 -138.92 -163.73 -132.08 -136.26 -136.30
SO XBADJ    COOL1_18  -71.55  -49.40  -25.74 -113.07 -112.44 -108.40
SO XBADJ    COOL1_18  -65.38  -71.96  -76.37  -78.45  -78.15  -75.47
SO XBADJ    COOL1_18  -75.08  -72.92  -68.54  -62.08  -53.74  -43.76
SO XBADJ    COOL1_18  -32.45  -20.15   -7.25  -27.59  -50.83  -72.53
SO XBADJ    COOL1_18  -92.02 -108.72 -122.11 -131.79 -137.47 -138.97
SO YBADJ    COOL1_18    3.60   -2.17   18.93   22.34    2.06  -18.29
SO YBADJ    COOL1_18  -26.67  -29.66  -31.75    4.62  -11.32  -26.91
SO YBADJ    COOL1_18  -30.27  -27.49  -23.88  -19.55  -14.62   -9.25
SO YBADJ    COOL1_18   -3.60    2.17    7.86   13.32   18.38   22.87
SO YBADJ    COOL1_18   26.67   29.66   31.75   32.87   33.00   32.12
SO YBADJ    COOL1_18   30.27   27.49   23.88   19.55   14.62    9.25

SO BUILDHGT COOL1_19   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_19   31.39   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL1_19   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_19   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_19   24.57  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL1_19   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_19   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_19  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_19  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_19  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL1_19   43.16   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL1_19   39.26  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_19  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_19  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_19  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_19 -123.97 -122.67 -148.60 -118.51 -124.67 -127.04
SO XBADJ    COOL1_19 -125.55  -45.57  -24.84  -36.84 -117.40 -116.10
SO XBADJ    COOL1_19 -111.27  -84.38  -90.61  -94.08  -94.70  -92.43
SO XBADJ    COOL1_19  -91.94  -89.17  -83.68  -75.65  -65.33  -53.02
SO XBADJ    COOL1_19  -39.09  -23.98   -8.15  -25.53  -45.88  -64.83
SO XBADJ    COOL1_19  -81.81  -96.30 -107.87 -116.16 -120.92 -122.01
SO YBADJ    COOL1_19    5.65    2.79   26.63   32.55   14.47   -4.05
SO YBADJ    COOL1_19  -22.44  -13.11  -14.79  -16.01    4.93  -11.77
SO YBADJ    COOL1_19  -28.11  -15.90  -14.63  -12.90  -10.79   -8.35
SO YBADJ    COOL1_19   -5.65   -2.79    0.16    3.11    5.96    8.63
SO YBADJ    COOL1_19   11.04   13.11   14.79   16.01   16.75   16.98
SO YBADJ    COOL1_19   16.70   15.90   14.63   12.90   10.79    8.35

SO BUILDHGT COOL1_20   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_20   31.39   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL1_20   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_20   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_20   14.94   14.94   14.94   14.94   14.94   14.94
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SO BUILDHGT COOL1_20    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_20    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL1_20    24.57   215.62   214.45   215.91    23.30    29.34
SO BUILDWID COOL1_20    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL1_20    62.37    97.33   129.33   157.39   180.68   198.48
SO BUILDWID COOL1_20   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_20   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_20   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL1_20    43.16    69.55    32.99    62.37    43.33    41.93
SO BUILDLEN COOL1_20    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL1_20   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL1_20   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_20   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL1_20 -108.64  -108.10  -135.24  -142.01  -114.89  -119.53
SO XBADJ    COOL1_20 -120.54   -43.20   -25.19   -39.90  -123.07  -124.21
SO XBADJ    COOL1_20 -121.58  -115.26  -104.32  -108.89  -110.15  -108.06
SO XBADJ    COOL1_20 -107.27  -103.74   -97.04   -87.40   -75.11   -60.53
SO XBADJ    COOL1_20   -44.11   -26.35    -7.80   -22.47   -40.20   -56.71
SO XBADJ    COOL1_20   -71.49   -84.10   -94.16  -101.36  -105.47  -106.38
SO YBADJ    COOL1_20     8.71     8.46    34.75    13.29    26.67     9.66
SO YBADJ    COOL1_20    -7.64     2.34     0.84    -0.68    19.49     1.59
SO YBADJ    COOL1_20   -16.36   -33.82    -7.11    -7.89    -8.42    -8.70
SO YBADJ    COOL1_20    -8.71    -8.46    -7.95    -7.20    -6.24    -5.08
SO YBADJ    COOL1_20    -3.77    -2.34    -0.84     0.68     2.18     3.62
SO YBADJ    COOL1_20     4.95     6.12     7.11     7.89     8.42     8.70

SO BUILDHGT COOL1_21    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL1_21    31.39    31.39    14.94    14.94    14.94    31.39
SO BUILDHGT COOL1_21    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_21    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL1_21    24.57    17.96   214.45   215.91   211.84    29.34
SO BUILDWID COOL1_21    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL1_21    62.37    97.33   129.33   157.39   180.68   198.48
SO BUILDWID COOL1_21   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_21   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_21   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL1_21    43.16    43.51    32.99    62.37    97.33    41.93
SO BUILDLEN COOL1_21    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL1_21   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL1_21   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_21   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL1_21   -92.16   -92.21   -89.45  -128.68  -133.06  -110.38
SO XBADJ    COOL1_21 -113.93  -114.01   -24.18   -41.78   -61.84  -131.61
SO XBADJ    COOL1_21 -131.45  -127.29  -118.14  -124.09  -126.27  -124.61
SO XBADJ    COOL1_21 -123.75  -119.63  -111.88  -100.73   -86.52   -69.68
SO XBADJ    COOL1_21   -50.72   -30.22    -8.81   -20.59   -35.49   -49.31
SO XBADJ    COOL1_21   -61.63   -72.08   -80.33   -86.15   -89.35   -89.83
SO YBADJ    COOL1_21    10.59    13.17    15.35    23.15     3.45    23.49
SO YBADJ    COOL1_21     7.57    -8.58    17.39    15.79    13.71    16.43
SO YBADJ    COOL1_21    -3.04   -22.41     2.04    -1.28    -4.55    -7.69
SO YBADJ    COOL1_21   -10.59   -13.17   -15.35   -17.07   -18.27   -18.91
SO YBADJ    COOL1_21   -18.97   -18.46   -17.39   -15.79   -13.71   -11.22
SO YBADJ    COOL1_21    -8.38    -5.29    -2.04     1.28     4.55     7.69

SO BUILDHGT COOL1_22    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL1_22    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL1_22    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL1_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_22    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL1_22    24.57    17.96    10.80   215.91   211.84   201.33
SO BUILDWID COOL1_22    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL1_22    62.37    97.33   129.33   157.39   180.68   198.48
SO BUILDWID COOL1_22   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_22   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_22   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL1_22    43.16    43.51    42.54    62.37    97.33   129.33
SO BUILDLEN COOL1_22    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL1_22   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL1_22   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_22   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL1_22   -76.44   -77.15   -75.52  -116.31  -122.61  -125.18
SO XBADJ    COOL1_22 -108.22  -110.97  -110.35   -44.27   -67.02   -87.74
SO XBADJ    COOL1_22 -141.47  -139.30  -132.91  -138.96  -141.90  -140.54
SO XBADJ    COOL1_22 -139.48  -134.69  -125.81  -113.11   -96.97   -77.88
SO XBADJ    COOL1_22   -56.43   -33.26    -9.09   -18.11   -30.31   -41.59
SO XBADJ    COOL1_22   -51.61   -60.06   -66.69   -71.29   -73.72   -73.91
SO YBADJ    COOL1_22    13.08    18.36    23.07    33.17    15.46    -2.71
SO YBADJ    COOL1_22    22.43     7.05    -8.55    31.52    28.77    25.14
SO YBADJ    COOL1_22     9.34   -11.96   -32.90     4.43    -1.51    -7.41
SO YBADJ    COOL1_22   -13.08   -18.36   -23.07   -27.09   -30.28   -32.55
SO YBADJ    COOL1_22   -33.84   -34.09   -33.31   -31.52   -28.77   -25.14
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SO YBADJ     COOL1_22  -20.76  -15.74  -10.24   -4.43    1.51    7.41

SO BUILDHGT COOL2_01    14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_01    31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_01    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_01    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_01    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_01    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_01    62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_01    24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_01   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_01    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_01   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_01   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_01   215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_01    43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_01   157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_01   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_01   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_01   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_01 -203.22 -170.94  -92.77 -100.35 -104.88 -106.22
SO XBADJ    COOL2_01 -104.33  -44.68   -9.27   -7.05   -8.35   -9.40
SO XBADJ    COOL2_01   -10.16  -10.62  -10.75  -10.55  -10.04   -9.21
SO XBADJ    COOL2_01   -12.69  -16.29  -19.40  -21.91  -23.76  -24.89
SO XBADJ    COOL2_01   -25.27  -24.87  -23.72  -55.32  -88.97 -119.92
SO XBADJ    COOL2_01 -147.23 -170.06 -187.73 -199.69 -205.59 -205.23
SO YBADJ    COOL2_01   -24.13   18.78   35.66   21.56    6.80   -8.17
SO YBADJ    COOL2_01   -22.89  -97.77  -98.01  -95.27  -89.63  -81.27
SO YBADJ    COOL2_01   -70.44  -57.47  -42.75  -26.73   -9.91    7.22
SO YBADJ    COOL2_01    24.13   40.31   55.26   68.53   79.72   88.49
SO YBADJ    COOL2_01    94.57   97.77   98.01   95.27   89.63   81.27
SO YBADJ    COOL2_01    70.44   57.47   42.75   26.73    9.91   -7.22

SO BUILDHGT COOL2_02    14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_02    31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_02    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_02    14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL2_02    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_02    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_02    62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_02    24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_02   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_02    62.37   97.33  129.33   39.26   35.39   30.44
SO BUILDWID COOL2_02   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_02   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_02   215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_02    43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_02   157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_02   215.91  211.84  201.33   34.48   38.57   41.50
SO BUILDLEN COOL2_02   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_02   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_02 -185.80 -154.35 -159.55 -159.89  -93.63  -97.52
SO XBADJ    COOL2_02   -98.45  -41.79   -9.46  -10.32  -14.59  -18.43
SO XBADJ    COOL2_02   -21.70  -24.31  -26.19  -27.27  -27.52  -26.93
SO XBADJ    COOL2_02   -30.11  -32.88  -34.65   52.42   55.06   56.03
SO XBADJ    COOL2_02   -31.15  -27.76  -23.53  -52.06  -82.73 -110.90
SO XBADJ    COOL2_02 -135.69 -156.37 -172.29 -182.97 -188.10 -187.51
SO YBADJ    COOL2_02   -20.87   25.02   -0.14  -25.29   20.49    7.27
SO YBADJ    COOL2_02    -6.17  -80.29  -80.29  -77.85  -73.04  -66.02
SO YBADJ    COOL2_02   -56.98  -46.22  -34.05  -20.85   -7.02    7.03
SO YBADJ    COOL2_02    20.87   34.07   46.24  -33.09  -20.49   -7.27
SO YBADJ    COOL2_02    77.85   80.29   80.29   77.85   73.04   66.02
SO YBADJ    COOL2_02    56.98   46.22   34.05   20.85    7.02   -7.03

SO BUILDHGT COOL2_03    14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_03    31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_03    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_03    14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_03    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_03    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_03    62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_03    24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_03   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_03    62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL2_03   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_03   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_03   215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_03    43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_03   157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_03   215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL2_03   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_03   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_03 -170.52 -139.80 -146.17 -148.10  -83.78  -89.90
SO XBADJ    COOL2_03   -93.30  -93.86   -9.64  -13.19  -20.08  -26.36
SO XBADJ    COOL2_03   -31.83  -36.34  -39.75  -41.94  -42.87  -42.48
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SO	XBADJ	COOL2_03	-45.39	-47.43	-48.03	-47.16	45.20	48.41
SO	XBADJ	COOL2_03	-36.30	-30.28	-23.35	-49.18	-77.25	-102.97
SO	XBADJ	COOL2_03	-125.56	-144.34	-158.73	-168.30	-172.76	-171.96
SO	YBADJ	COOL2_03	-17.99	30.51	7.79	-15.16	32.52	20.83
SO	YBADJ	COOL2_03	8.50	-4.08	-64.74	-62.57	-58.49	-52.64
SO	YBADJ	COOL2_03	-45.19	-36.36	-26.43	-15.70	-4.49	6.85
SO	YBADJ	COOL2_03	17.99	28.58	38.31	46.86	-32.52	-20.83
SO	YBADJ	COOL2_03	63.18	64.95	64.74	62.57	58.49	52.64
SO	YBADJ	COOL2_03	45.19	36.36	26.43	15.70	4.49	-6.85

SO	BUILDHGT	COOL2_04	14.94	31.39	31.39	31.39	31.39	14.94
SO	BUILDHGT	COOL2_04	31.39	31.39	31.39	31.39	14.94	14.94
SO	BUILDHGT	COOL2_04	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL2_04	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL2_04	31.39	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL2_04	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDWID	COOL2_04	62.37	43.33	41.93	39.26	35.39	198.48
SO	BUILDWID	COOL2_04	24.57	17.96	10.80	16.56	211.84	201.33
SO	BUILDWID	COOL2_04	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDWID	COOL2_04	62.37	97.33	129.33	157.40	180.68	198.48
SO	BUILDWID	COOL2_04	24.57	215.62	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL2_04	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDLEN	COOL2_04	215.91	23.30	29.34	34.48	38.57	135.28
SO	BUILDLEN	COOL2_04	43.16	43.51	42.54	43.42	97.33	129.33
SO	BUILDLEN	COOL2_04	157.40	180.68	198.48	210.24	215.62	214.45
SO	BUILDLEN	COOL2_04	215.91	211.84	201.33	184.70	162.46	135.28
SO	BUILDLEN	COOL2_04	43.16	69.55	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL2_04	157.40	180.68	198.48	210.24	215.62	214.45
SO	XBADJ	COOL2_04	-155.26	-125.19	-132.66	-136.09	-135.39	-86.12
SO	XBADJ	COOL2_04	-87.76	-90.92	-91.30	-90.49	-25.11	-33.85
SO	XBADJ	COOL2_04	-41.56	-48.00	-52.99	-56.37	-58.03	-57.93
SO	XBADJ	COOL2_04	-60.65	-62.04	-61.54	-59.17	-55.00	-49.17
SO	XBADJ	COOL2_04	44.61	-33.23	-23.62	-46.76	-72.22	-95.48
SO	XBADJ	COOL2_04	-115.84	-132.68	-145.49	-153.88	-157.59	-156.51
SO	YBADJ	COOL2_04	-15.57	35.54	15.28	-5.44	-25.99	-46.25
SO	YBADJ	COOL2_04	22.93	11.09	-1.09	-13.23	-43.88	-39.12
SO	YBADJ	COOL2_04	-33.18	-26.23	-18.48	-10.16	-1.54	7.12
SO	YBADJ	COOL2_04	15.57	23.55	30.81	37.14	42.34	46.25
SO	YBADJ	COOL2_04	-22.93	49.78	49.29	47.30	43.88	39.12
SO	YBADJ	COOL2_04	33.18	26.23	18.48	10.16	1.54	-7.12

SO	BUILDHGT	COOL2_05	14.94	31.39	31.39	31.39	31.39	14.94
SO	BUILDHGT	COOL2_05	14.94	14.94	14.94	31.39	31.39	31.39
SO	BUILDHGT	COOL2_05	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL2_05	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL2_05	14.94	14.94	14.94	14.94	14.94	31.39
SO	BUILDHGT	COOL2_05	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDWID	COOL2_05	62.37	43.33	41.93	39.26	35.39	198.48
SO	BUILDWID	COOL2_05	210.24	215.62	214.45	16.56	23.30	29.34
SO	BUILDWID	COOL2_05	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDWID	COOL2_05	62.37	97.33	129.33	157.40	180.68	198.48
SO	BUILDWID	COOL2_05	210.24	215.62	214.45	215.91	211.84	29.34
SO	BUILDWID	COOL2_05	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDLEN	COOL2_05	215.91	23.30	29.34	34.48	38.57	135.28
SO	BUILDLEN	COOL2_05	104.00	69.55	32.99	43.42	43.33	41.93
SO	BUILDLEN	COOL2_05	157.40	180.68	198.48	210.24	215.62	214.45
SO	BUILDLEN	COOL2_05	215.91	211.84	201.33	184.70	162.46	135.28
SO	BUILDLEN	COOL2_05	104.00	69.55	32.99	62.37	97.33	41.93
SO	BUILDLEN	COOL2_05	157.40	180.68	198.48	210.24	215.62	214.45
SO	XBADJ	COOL2_05	-139.54	-153.65	-118.89	-123.95	-125.25	-78.28
SO	XBADJ	COOL2_05	-56.87	-33.73	-9.56	-93.46	-92.76	-89.24
SO	XBADJ	COOL2_05	-51.99	-60.38	-66.94	-71.47	-73.82	-73.93
SO	XBADJ	COOL2_05	-76.38	-77.01	-75.30	-71.31	-65.14	-57.00
SO	XBADJ	COOL2_05	-47.13	-35.82	-23.43	-43.80	-66.57	47.31
SO	XBADJ	COOL2_05	-105.41	-120.30	-131.54	-138.78	-141.80	-140.51
SO	YBADJ	COOL2_05	-12.61	25.85	23.45	4.99	-13.61	-32.30
SO	YBADJ	COOL2_05	-33.65	-33.99	-33.29	2.49	-10.01	-22.20
SO	YBADJ	COOL2_05	-21.04	-16.09	-10.64	-4.87	1.05	6.93
SO	YBADJ	COOL2_05	12.61	17.90	22.65	26.71	29.96	32.30
SO	YBADJ	COOL2_05	33.65	33.99	33.29	31.58	28.91	22.20
SO	YBADJ	COOL2_05	21.04	16.09	10.64	4.87	-1.05	-6.93

SO	BUILDHGT	COOL2_06	14.94	31.39	31.39	31.39	31.39	31.39
SO	BUILDHGT	COOL2_06	14.94	14.94	14.94	14.94	31.39	31.39
SO	BUILDHGT	COOL2_06	31.39	31.39	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL2_06	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL2_06	14.94	14.94	14.94	14.94	14.94	31.39
SO	BUILDHGT	COOL2_06	31.39	31.39	14.94	14.94	14.94	14.94
SO	BUILDWID	COOL2_06	62.37	43.33	41.93	39.26	35.39	30.44
SO	BUILDWID	COOL2_06	210.24	215.62	214.45	215.91	23.30	29.34
SO	BUILDWID	COOL2_06	34.48	38.57	135.28	104.00	69.55	32.99
SO	BUILDWID	COOL2_06	62.37	97.33	129.33	157.40	180.68	198.48
SO	BUILDWID	COOL2_06	210.24	215.62	214.45	215.91	211.84	29.34
SO	BUILDWID	COOL2_06	34.48	38.57	135.28	104.00	69.55	32.99
SO	BUILDLEN	COOL2_06	215.91	23.30	29.34	34.48	38.57	41.50

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SO BUILDLEN COOL2_06  104.00   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL2_06   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_06  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_06  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL2_06   39.26   35.39  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_06 -122.15 -137.01 -103.51 -110.29 -113.72 -113.69
SO XBADJ    COOL2_06  -50.59  -30.40   -9.28  -21.36  -98.51  -97.80
SO XBADJ    COOL2_06  -94.11  -87.56  -82.05  -87.91  -91.11  -91.54
SO XBADJ    COOL2_06  -93.76  -93.64  -90.68  -84.97  -76.67  -66.04
SO XBADJ    COOL2_06  -53.41  -39.15  -23.71  -41.02  -60.81   55.86
SO XBADJ    COOL2_06   54.85   52.17 -116.43 -122.33 -124.51 -122.91
SO YBADJ    COOL2_06   -9.83   31.61   32.01   16.09   -0.31  -16.70
SO YBADJ    COOL2_06  -17.21  -16.70  -15.69  -14.20    6.63   -6.82
SO YBADJ    COOL2_06  -20.06  -32.68   -1.60    1.41    4.38    7.21
SO YBADJ    COOL2_06    9.83   12.14   14.09   15.61   16.66   17.19
SO YBADJ    COOL2_06   17.21   16.70   15.69   14.20   12.28    6.82
SO YBADJ    COOL2_06   20.06   32.68    1.60   -1.41   -4.38   -7.21

SO BUILDHGT COOL2_07   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_07   31.39   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_07   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL2_07   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_07   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_07   14.94   14.94   31.39   14.94   14.94   14.94
SO BUILDWID COOL2_07   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_07   24.57  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL2_07   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL2_07   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_07  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_07  184.70  162.46   41.50  104.00   69.55   32.99
SO BUILDLEN COOL2_07  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_07   43.16   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL2_07   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL2_07  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_07  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_07  157.40  180.68   30.44  210.24  215.62  214.45
SO XBADJ    COOL2_07 -106.16 -121.70 -129.45  -97.71 -103.10 -105.35
SO XBADJ    COOL2_07 -104.41  -27.31   -9.00  -23.89 -103.79 -105.65
SO XBADJ    COOL2_07 -104.30  -99.78  -92.23 -103.03 -107.00 -107.73
SO XBADJ    COOL2_07 -109.75 -108.95 -104.84  -97.55  -87.29  -74.38
SO XBADJ    COOL2_07  -59.21  -42.24  -23.99  -38.48  -55.53  -70.90
SO XBADJ    COOL2_07  -84.12  -94.77   61.79 -107.21 -108.62 -106.72
SO YBADJ    COOL2_07   -7.29   36.88   17.21   26.28   11.91   -2.82
SO YBADJ    COOL2_07  -17.47   -0.81    0.50    1.79   21.94    7.34
SO YBADJ    COOL2_07   -7.47  -22.06  -35.98    7.21    7.47    7.49
SO YBADJ    COOL2_07    7.29    6.87    6.24    5.42    4.43    3.31
SO YBADJ    COOL2_07    2.09    0.81   -0.50   -1.79   -3.03   -4.18
SO YBADJ    COOL2_07   -5.20   -6.06   35.98   -7.21   -7.47   -7.49

SO BUILDHGT COOL2_08   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_08   31.39   31.39   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_08   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL2_08   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_08   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_08   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_08   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_08   24.57   17.96  214.45  215.91  211.84   29.34
SO BUILDWID COOL2_08   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL2_08   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL2_08  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_08  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_08  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_08   43.16   43.51   32.99   62.37   97.33   41.93
SO BUILDLEN COOL2_08   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL2_08  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL2_08  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_08  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_08  -87.94  -85.45 -113.33 -118.95  -91.02  -95.89
SO XBADJ    COOL2_08  -97.84  -96.81   -8.72  -26.82  -47.84 -114.63
SO XBADJ    COOL2_08 -115.94 -113.73 -108.07 -120.27 -125.12 -126.17
SO XBADJ    COOL2_08 -127.97 -126.39 -120.96 -111.86   52.45   54.39
SO XBADJ    COOL2_08  -65.78  -45.72  -24.27  -35.55  -49.49  -61.92
SO XBADJ    COOL2_08  -72.47  -80.82  -86.71  -89.97  -90.50  -88.27
SO YBADJ    COOL2_08   -4.37   -0.82   26.20    8.67   25.87   13.02
SO YBADJ    COOL2_08   -0.23  -13.47   18.95   20.01   20.47   23.46
SO YBADJ    COOL2_08    6.84   -9.99  -26.51   13.79   10.95    7.77
SO YBADJ    COOL2_08    4.37    0.82   -2.74   -6.23  -25.87  -13.02
SO YBADJ    COOL2_08  -15.15  -17.31  -18.95  -20.01  -20.47  -20.30
SO YBADJ    COOL2_08  -19.51  -18.14  -16.21  -13.79  -10.95   -7.77

SO BUILDHGT COOL2_09   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_09   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL2_09   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL2_09   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_09   14.94   14.94   14.94   14.94   14.94   14.94
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SO BUILDHGT COOL2_09   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_09   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_09   24.57   17.96   10.80  215.91  211.84  201.33
SO BUILDWID COOL2_09   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL2_09   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL2_09  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_09  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_09  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_09   43.16   43.51   42.54   62.37   97.33  129.33
SO BUILDLEN COOL2_09   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL2_09  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL2_09  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_09  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_09  -72.02  -70.30  -99.40 -106.67 -110.70  -87.96
SO XBADJ    COOL2_09  -92.48  -94.20  -93.05  -29.83  -53.57  -75.68
SO XBADJ    COOL2_09 -126.51 -126.27 -122.20 -114.41 -141.11 -142.38
SO XBADJ    COOL2_09 -143.89 -141.54 -134.89 -124.15 -109.63   46.46
SO XBADJ    COOL2_09  -71.14  -48.34  -24.07  -32.54  -43.76  -53.65
SO XBADJ    COOL2_09  -61.91  -68.28  -72.58  -74.68  -74.51  -72.07
SO YBADJ    COOL2_09   -1.36    4.91   34.47   19.23    3.41   27.15
SO YBADJ    COOL2_09   15.06    2.52  -10.10   35.93   35.62   34.23
SO YBADJ    COOL2_09   19.12    0.27  -18.59  -36.88   13.56    7.57
SO YBADJ    COOL2_09    1.36   -4.91  -11.02  -16.79  -22.06  -27.15
SO YBADJ    COOL2_09  -30.44  -33.30  -35.15  -35.93  -35.62  -34.23
SO YBADJ    COOL2_09  -31.80  -28.40  -24.13  -19.14  -13.56   -7.57

SO BUILDHGT COOL2_10   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL2_10   31.39   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL2_10   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL2_10   14.94   14.94   14.94   31.39   31.39   14.94
SO BUILDHGT COOL2_10   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_10   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_10   62.37   97.33  129.33   39.26   35.39   30.44
SO BUILDWID COOL2_10   24.57   17.96   10.80   16.56   23.30  201.33
SO BUILDWID COOL2_10   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL2_10   62.37   97.33  129.33   39.26   35.39  198.48
SO BUILDWID COOL2_10  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_10  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_10  215.91  211.84  201.33   34.48   38.57   41.50
SO BUILDLEN COOL2_10   43.16   43.51   42.54   43.42   43.33  129.33
SO BUILDLEN COOL2_10   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL2_10  215.91  211.84  201.33   34.48   38.57  135.28
SO BUILDLEN COOL2_10  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_10  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_10  -57.05  -55.88  -53.01  -94.65 -100.44 -103.18
SO XBADJ    COOL2_10 -102.79  -90.84  -92.30  -92.52  -90.11  -82.57
SO XBADJ    COOL2_10 -135.62 -137.33 -134.87 -128.32 -155.82 -157.45
SO XBADJ    COOL2_10 -158.86 -155.96 -148.32   60.17   61.87  -99.96
SO XBADJ    COOL2_10  -77.00  -51.69  -24.82  -30.66  -39.31  -46.76
SO XBADJ    COOL2_10  -52.79  -57.22  -59.91  -60.78  -59.80  -57.00
SO YBADJ    COOL2_10    0.52    9.35   17.90   28.34   14.47    0.16
SO YBADJ    COOL2_10  -14.16   17.23    4.97   -7.44  -19.62   47.65
SO YBADJ    COOL2_10   31.15   10.53  -10.40  -31.02   16.92    8.32
SO YBADJ    COOL2_10   -0.52   -9.35  -17.90  -28.34  -14.47  -39.33
SO YBADJ    COOL2_10  -44.35  -48.01  -50.22  -50.90  -50.04  -47.65
SO YBADJ    COOL2_10  -43.82  -38.66  -32.32  -25.00  -16.92   -8.32

SO BUILDHGT COOL2_11   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_11   31.39   31.39   14.94   31.39   31.39   31.39
SO BUILDHGT COOL2_11   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL2_11   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_11   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_11   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_11   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL2_11   24.57   17.96  214.45   16.56   23.30   29.34
SO BUILDWID COOL2_11   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL2_11   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL2_11  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL2_11   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_11  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL2_11   43.16   43.51   32.99   43.42   43.33   41.93
SO BUILDLEN COOL2_11   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL2_11  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL2_11  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL2_11   39.26  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_11  -40.95  -40.63  -39.08  -36.34  -90.36  -95.52
SO XBADJ    COOL2_11  -97.77  -97.06   -8.83  -96.03  -96.37  -93.77
SO XBADJ    COOL2_11  -88.33 -150.38 -149.47 -144.02 -172.16 -173.91
SO XBADJ    COOL2_11 -174.96 -171.21 -162.25 -148.36   51.78   54.02
SO XBADJ    COOL2_11  -82.01  -53.90  -24.16  -27.15  -33.06   51.84
SO XBADJ    COOL2_11   49.07  -44.18  -45.32  -45.07  -43.46  -40.53
SO YBADJ    COOL2_11    4.03   15.61   26.71   37.00   27.51   14.75
SO YBADJ    COOL2_11    1.55  -11.71   66.69    8.67   -4.37  -17.28
SO YBADJ    COOL2_11  -29.66   20.61   -2.74  -26.01   19.13    7.66
SO YBADJ    COOL2_11   -4.03  -15.61  -26.71  -37.00  -27.51  -14.75
SO YBADJ    COOL2_11  -60.05  -64.35  -66.69  -67.01  -65.29   17.28
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SO YBADJ	COOL2_11	29.66	-48.74	-39.98	-30.01	-19.13	-7.66
SO BUILDHGT	COOL2_12	14.94	14.94	14.94	14.94	14.94	31.39
SO BUILDHGT	COOL2_12	31.39	31.39	31.39	14.94	31.39	31.39
SO BUILDHGT	COOL2_12	31.39	31.39	31.39	31.39	14.94	14.94
SO BUILDHGT	COOL2_12	14.94	14.94	14.94	14.94	14.94	31.39
SO BUILDHGT	COOL2_12	14.94	14.94	14.94	14.94	14.94	14.94
SO BUILDHGT	COOL2_12	31.39	31.39	14.94	14.94	14.94	14.94
SO BUILDWID	COOL2_12	62.37	97.33	129.33	157.40	180.68	30.44
SO BUILDWID	COOL2_12	24.57	17.96	10.80	215.91	23.30	29.34
SO BUILDWID	COOL2_12	34.48	38.57	41.50	43.16	69.55	32.99
SO BUILDWID	COOL2_12	62.37	97.33	129.33	157.40	180.68	30.44
SO BUILDWID	COOL2_12	210.24	215.62	214.45	215.91	211.84	201.33
SO BUILDWID	COOL2_12	34.48	38.57	135.28	104.00	69.55	32.99
SO BUILDLEN	COOL2_12	215.91	211.84	201.33	184.70	162.46	41.50
SO BUILDLEN	COOL2_12	43.16	43.51	42.54	62.37	43.33	41.93
SO BUILDLEN	COOL2_12	39.26	35.39	30.44	24.57	215.62	214.45
SO BUILDLEN	COOL2_12	215.91	211.84	201.33	184.70	162.46	41.50
SO BUILDLEN	COOL2_12	104.00	69.55	32.99	62.37	97.33	129.33
SO BUILDLEN	COOL2_12	39.26	35.39	198.48	210.24	215.62	214.45
SO XBADJ	COOL2_12	-25.18	-25.64	-25.32	-24.23	-22.41	-87.76
SO XBADJ	COOL2_12	-92.58	-94.58	-93.72	-38.33	-102.16	-102.08
SO XBADJ	COOL2_12	-98.90	-162.89	-163.54	-159.23	-188.04	-189.98
SO XBADJ	COOL2_12	-190.74	-186.20	-176.01	-160.47	-140.05	46.26
SO XBADJ	COOL2_12	-87.21	-56.38	-23.84	-24.05	-27.26	-29.64
SO XBADJ	COOL2_12	59.65	57.33	-31.24	-29.86	-27.58	-24.46
SO YBADJ	COOL2_12	7.14	21.40	35.02	47.57	58.68	28.83
SO YBADJ	COOL2_12	16.76	4.17	-8.54	82.78	10.62	-3.52
SO YBADJ	COOL2_12	-17.55	30.70	5.02	-20.81	21.60	7.34
SO YBADJ	COOL2_12	-7.14	-21.40	-35.02	-47.57	-58.68	-28.83
SO YBADJ	COOL2_12	-75.26	-80.23	-82.76	-82.78	-80.28	-75.34
SO YBADJ	COOL2_12	17.55	31.05	-47.74	-35.21	-21.60	-7.34
SO BUILDHGT	COOL2_13	14.94	14.94	14.94	14.94	14.94	14.94
SO BUILDHGT	COOL2_13	14.94	14.94	31.39	31.39	31.39	31.39
SO BUILDHGT	COOL2_13	31.39	31.39	31.39	31.39	14.94	14.94
SO BUILDHGT	COOL2_13	14.94	14.94	14.94	14.94	14.94	14.94
SO BUILDHGT	COOL2_13	14.94	14.94	14.94	14.94	14.94	31.39
SO BUILDHGT	COOL2_13	14.94	14.94	14.94	14.94	14.94	14.94
SO BUILDWID	COOL2_13	62.37	97.33	129.33	157.40	180.68	198.48
SO BUILDWID	COOL2_13	210.24	215.62	10.80	16.56	23.30	29.34
SO BUILDWID	COOL2_13	34.48	38.57	41.50	43.16	69.55	32.99
SO BUILDWID	COOL2_13	62.37	97.33	129.33	157.40	180.68	198.48
SO BUILDWID	COOL2_13	210.24	215.62	214.45	215.91	211.84	29.34
SO BUILDWID	COOL2_13	184.70	162.46	135.28	104.00	69.55	32.99
SO BUILDLEN	COOL2_13	215.91	211.84	201.33	184.70	162.46	135.28
SO BUILDLEN	COOL2_13	104.00	69.55	42.54	43.42	43.33	41.93
SO BUILDLEN	COOL2_13	39.26	35.39	30.44	24.57	215.62	214.45
SO BUILDLEN	COOL2_13	215.91	211.84	201.33	184.70	162.46	135.28
SO BUILDLEN	COOL2_13	104.00	69.55	32.99	62.37	97.33	41.93
SO BUILDLEN	COOL2_13	157.40	180.68	198.48	210.24	215.62	214.45
SO XBADJ	COOL2_13	-7.54	-8.67	-9.54	-10.12	-10.40	-10.35
SO XBADJ	COOL2_13	-10.00	-9.34	-92.96	-93.91	-92.19	-87.67
SO XBADJ	COOL2_13	-109.75	-105.85	-178.56	-175.68	-205.42	-207.77
SO XBADJ	COOL2_13	-208.38	-203.17	-191.79	-174.58	-152.06	-124.93
SO XBADJ	COOL2_13	-94.00	-60.21	-24.60	-21.71	-21.89	45.74
SO XBADJ	COOL2_13	-20.28	-18.53	-16.22	-13.42	-10.20	-6.68
SO YBADJ	COOL2_13	9.48	26.77	43.25	58.42	71.81	83.02
SO YBADJ	COOL2_13	91.71	97.61	9.24	-3.35	-15.83	-27.84
SO YBADJ	COOL2_13	-3.44	-19.04	14.57	-14.02	25.44	8.10
SO YBADJ	COOL2_13	-9.48	-26.77	-43.25	-58.42	-71.81	-83.02
SO YBADJ	COOL2_13	-91.71	-97.61	-100.54	-100.42	-97.25	27.84
SO YBADJ	COOL2_13	-82.23	-70.83	-57.29	-42.00	-25.44	-8.10
SO BUILDHGT	COOL2_14	14.94	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	COOL2_14	31.39	14.94	14.94	14.94	14.94	14.94
SO BUILDHGT	COOL2_14	14.94	14.94	14.94	14.94	14.94	14.94
SO BUILDHGT	COOL2_14	14.94	14.94	14.94	14.94	14.94	14.94
SO BUILDHGT	COOL2_14	14.94	14.94	14.94	14.94	14.94	14.94
SO BUILDHGT	COOL2_14	14.94	14.94	14.94	14.94	14.94	14.94
SO BUILDWID	COOL2_14	62.37	43.33	41.93	39.26	35.39	30.44
SO BUILDWID	COOL2_14	24.57	215.62	214.45	215.91	211.84	201.33
SO BUILDWID	COOL2_14	184.70	162.46	135.28	104.00	69.55	32.99
SO BUILDWID	COOL2_14	62.37	97.33	129.33	157.40	180.68	198.48
SO BUILDWID	COOL2_14	210.24	215.62	214.45	215.91	211.84	201.33
SO BUILDWID	COOL2_14	184.70	162.46	135.28	104.00	69.55	32.99
SO BUILDLEN	COOL2_14	215.91	23.30	29.34	34.48	38.57	41.50
SO BUILDLEN	COOL2_14	43.16	69.55	32.99	62.37	97.33	129.33
SO BUILDLEN	COOL2_14	157.40	180.68	198.48	210.24	215.62	214.45
SO BUILDLEN	COOL2_14	215.91	211.84	201.33	184.70	162.46	135.28
SO BUILDLEN	COOL2_14	104.00	69.55	32.99	62.37	97.33	129.33
SO BUILDLEN	COOL2_14	157.40	180.68	198.48	210.24	215.62	214.45
SO XBADJ	COOL2_14	-205.73	-175.95	-182.17	-182.85	-116.22	-119.07
SO XBADJ	COOL2_14	-118.29	-59.32	-24.15	-21.72	-22.36	-22.33
SO XBADJ	COOL2_14	-21.62	-20.24	-18.26	-15.72	-12.70	-9.29

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SO XBADJ    COOL2_14  -10.19  -11.28  -12.03  -12.41  -12.42  -12.05
SO XBADJ    COOL2_14  -11.31  -10.23   -8.84  -40.65  -74.96 -107.00
SO XBADJ    COOL2_14 -135.78 -160.44 -180.22 -194.53 -202.92 -205.15
SO YBADJ    COOL2_14   -9.47   32.79    3.76  -25.38   16.42   -0.66
SO YBADJ    COOL2_14  -17.72  -95.11  -97.93  -97.77  -94.64  -88.64
SO YBADJ    COOL2_14  -79.94  -68.81  -55.60  -40.69  -24.55   -7.66
SO YBADJ    COOL2_14    9.47   26.30   42.33   57.08   70.10   80.98
SO YBADJ    COOL2_14   89.40   95.11   97.93   97.77   94.64   88.64
SO YBADJ    COOL2_14   79.94   68.81   55.60   40.69   24.55    7.66

SO BUILDHGT COOL2_15   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_15   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_15   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_15   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_15  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_15   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_15  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_15  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_15  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_15   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_15  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_15  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_15  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_15  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_15 -187.78 -183.39 -166.29 -168.75 -104.33 -109.74
SO XBADJ    COOL2_15 -111.81 -110.49  -23.87  -24.60  -28.32  -31.17
SO XBADJ    COOL2_15  -33.08  -33.98  -33.85  -32.70  -30.54  -27.46
SO XBADJ    COOL2_15  -28.13  -28.45  -27.90  -26.51  -24.31  -21.37
SO XBADJ    COOL2_15  -17.79  -13.66   -9.12  -37.77  -69.01  -98.16
SO XBADJ    COOL2_15 -124.32 -146.70 -164.62 -177.55 -185.08 -186.98
SO YBADJ    COOL2_15   -6.59  -20.35   12.61  -13.91   30.16   14.94
SO YBADJ    COOL2_15   -0.74  -16.40  -79.76  -79.83  -77.47  -72.76
SO YBADJ    COOL2_15  -65.84  -56.92  -46.27  -34.21  -21.11   -7.38
SO YBADJ    COOL2_15    6.59   20.35   33.49   45.62   56.36   65.39
SO YBADJ    COOL2_15   72.43   77.27   79.76   79.83   77.47   72.76
SO YBADJ    COOL2_15   65.84   56.92   46.27   34.21   21.11    7.38

SO BUILDHGT COOL2_16   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_16   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_16   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_16   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_16  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_16   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_16  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_16  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_16  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_16   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_16  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_16  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_16  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_16  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_16 -173.20 -169.59 -153.69 -157.74 -156.99 -102.84
SO XBADJ    COOL2_16 -107.32 -108.54  -24.53  -27.84  -34.04  -39.21
SO XBADJ    COOL2_16  -43.18  -45.84  -47.11  -46.95  -45.36  -42.39
SO XBADJ    COOL2_16  -42.72  -42.25  -40.50  -37.52  -33.40  -28.27
SO XBADJ    COOL2_16  -22.27  -15.60   -8.46  -34.53  -63.29  -90.12
SO XBADJ    COOL2_16 -114.21 -134.84 -151.36 -163.29 -170.26 -172.05
SO YBADJ    COOL2_16   -3.34  -14.62   20.64   -3.81  -28.15   28.20
SO YBADJ    COOL2_16   13.51   -1.58  -64.83  -65.24  -63.67  -60.16
SO YBADJ    COOL2_16  -54.83  -47.83  -39.37  -29.72  -19.17   -8.04
SO YBADJ    COOL2_16    3.34   14.62   25.46   35.52   44.50   52.13
SO YBADJ    COOL2_16   58.17   62.45   64.83   65.24   63.67   60.16
SO YBADJ    COOL2_16   54.83   47.83   39.37   29.72   19.17    8.04

SO BUILDHGT COOL2_17   14.94   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL2_17   14.94   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL2_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_17   62.37   43.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL2_17  210.24   17.96   10.80   16.56  211.84  201.33
SO BUILDWID COOL2_17  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_17   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_17  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_17  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_17  215.91   23.30   29.34   34.48   38.57  135.28
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SO BUILDLEN COOL2_17  104.00   43.51   42.54   43.42   97.33  129.33
SO BUILDLEN COOL2_17  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_17  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_17  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_17  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_17 -157.82 -173.69 -140.08 -145.64 -146.77  -98.99
SO XBADJ    COOL2_17  -76.14 -105.57 -106.18 -105.15  -39.10  -46.75
SO XBADJ    COOL2_17  -52.97  -57.58  -60.45  -61.48  -60.64  -57.95
SO XBADJ    COOL2_17  -58.09  -56.97  -54.12  -49.62  -43.62  -36.29
SO XBADJ    COOL2_17  -27.86  -18.58   -8.74  -32.10  -58.23  -82.58
SO XBADJ    COOL2_17 -104.43 -123.10 -138.03 -148.77 -154.98 -156.49
SO YBADJ    COOL2_17   -0.92   34.19   28.18    5.98  -16.41  -38.79
SO YBADJ    COOL2_17  -43.65   13.69   -1.07  -15.80  -48.95  -46.55
SO YBADJ    COOL2_17  -42.73  -37.61  -31.35  -24.14  -16.19   -7.76
SO YBADJ    COOL2_17    0.92    9.56   17.92   25.73   32.76   38.79
SO YBADJ    COOL2_17   43.65   47.17   49.27   49.87   48.95   46.55
SO YBADJ    COOL2_17   42.73   37.61   31.35   24.14   16.19    7.76

SO BUILDHGT COOL2_18   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_18   14.94   14.94   14.94   31.39   31.39   14.94
SO BUILDHGT COOL2_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_18   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_18  210.24  215.62  214.45   16.56   23.30  201.33
SO BUILDWID COOL2_18  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_18   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_18  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_18  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_18  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_18  104.00   69.55   32.99   43.42   43.33  129.33
SO BUILDLEN COOL2_18  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_18  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_18  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_18  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_18 -141.96 -139.77 -126.20 -133.40 -136.54 -135.54
SO XBADJ    COOL2_18  -70.80  -48.35  -24.44 -108.14 -106.79  -54.98
SO XBADJ    COOL2_18  -63.49  -70.07  -74.52  -76.71  -76.57  -74.10
SO XBADJ    COOL2_18  -73.95  -72.07  -68.00  -61.86  -53.85  -44.20
SO XBADJ    COOL2_18  -33.20  -21.20   -8.55  -29.11  -52.53  -74.35
SO XBADJ    COOL2_18  -93.91 -110.61 -123.96 -133.54 -139.06 -140.35
SO YBADJ    COOL2_18    2.07   -3.86   36.42   16.50   -3.93  -24.23
SO YBADJ    COOL2_18  -28.41  -31.25  -33.13    0.06  -14.95  -32.66
SO YBADJ    COOL2_18  -30.49  -27.38  -23.45  -18.80  -13.58   -7.95
SO YBADJ    COOL2_18   -2.07    3.86    9.68   15.21   20.27   24.72
SO YBADJ    COOL2_18   28.41   31.25   33.13   34.01   33.85   32.66
SO YBADJ    COOL2_18   30.49   27.38   23.45   18.80   13.58    7.95

SO BUILDHGT COOL2_19   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_19   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_19   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_19   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_19  210.24  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL2_19   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_19   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_19  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_19  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_19  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_19  104.00   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL2_19   39.26  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_19  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_19  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_19  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_19 -124.45 -123.01 -150.80 -119.63 -124.93 -126.43
SO XBADJ    COOL2_19  -64.47  -45.00  -24.16  -36.06 -112.60 -110.83
SO XBADJ    COOL2_19 -105.69  -83.47  -89.74  -93.27  -93.98  -91.82
SO XBADJ    COOL2_19  -91.46  -88.83  -83.49  -75.63  -65.46  -53.30
SO XBADJ    COOL2_19  -39.53  -24.55   -8.83  -26.31  -46.73  -65.72
SO XBADJ    COOL2_19  -82.72  -97.21 -108.74 -116.97 -121.64 -122.62
SO YBADJ    COOL2_19    4.88    1.94   22.39   27.68    9.48   -9.01
SO YBADJ    COOL2_19  -11.85  -13.83  -15.40  -16.50    1.81  -14.01
SO YBADJ    COOL2_19  -29.40  -15.77  -14.34  -12.47  -10.22   -7.67
SO YBADJ    COOL2_19   -4.88   -1.94    1.06    4.03    6.87    9.50
SO YBADJ    COOL2_19   11.85   13.83   15.40   16.50   17.09   17.17
SO YBADJ    COOL2_19   16.72   15.77   14.34   12.47   10.22    7.67

SO BUILDHGT COOL2_20   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_20   31.39   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_20   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_20   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_20   14.94   14.94   14.94   14.94   14.94   14.94
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SO BUILDHGT COOL2_20    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_20    62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_20    24.57  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL2_20    34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_20    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_20   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_20   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_20   215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_20    43.16   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL2_20    39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_20   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_20   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_20   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_20 -108.91 -108.13 -137.04 -142.96 -114.61 -118.33
SO XBADJ    COOL2_20 -118.45  -41.99  -23.88  -38.52 -117.71 -118.45
SO XBADJ    COOL2_20 -115.59 -109.21 -103.22 -107.96 -109.42 -107.55
SO XBADJ    COOL2_20 -107.00 -103.70  -97.26  -87.86  -75.78  -61.41
SO XBADJ    COOL2_20  -45.17  -27.56   -9.11  -23.86  -41.61  -58.10
SO XBADJ    COOL2_20  -72.83  -85.34  -95.26 -102.28 -106.20 -106.89
SO YBADJ    COOL2_20     7.33    7.05   30.02    8.31   21.35    4.47
SO YBADJ    COOL2_20   -12.54    1.61    0.33   -0.96   16.69   -0.24
SO YBADJ    COOL2_20   -17.17  -33.57   -6.23   -6.83   -7.22   -7.39
SO YBADJ    COOL2_20    -7.33   -7.05   -6.56   -5.87   -5.00   -3.98
SO YBADJ    COOL2_20    -2.84   -1.61   -0.33    0.96    2.22    3.41
SO YBADJ    COOL2_20     4.49    5.45    6.23    6.83    7.22    7.39

SO BUILDHGT COOL2_21    14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL2_21    31.39   31.39   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_21    31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_21    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_21    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_21    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_21    62.37   97.33  129.33   39.26   35.39   30.44
SO BUILDWID COOL2_21    24.57   17.96  214.45  215.91  211.84   29.34
SO BUILDWID COOL2_21    34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_21    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_21   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_21   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_21   215.91  211.84  201.33   34.48   38.57   41.50
SO BUILDLEN COOL2_21    43.16   43.51   32.99   62.37   97.33   41.93
SO BUILDLEN COOL2_21    39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_21   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_21   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_21   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_21   -90.76  -90.76  -88.01 -128.70 -132.52 -108.90
SO XBADJ    COOL2_21 -111.91 -111.52  -23.61  -41.45  -61.75 -127.41
SO XBADJ    COOL2_21 -127.20 -123.13 -119.01 -125.15 -127.48 -125.95
SO XBADJ    COOL2_21 -125.16 -121.08 -113.32 -102.12  -87.81  -70.84
SO XBADJ    COOL2_21   -51.71  -31.02   -9.38  -20.93  -35.57  -49.14
SO XBADJ    COOL2_21   -61.21  -71.43  -79.47  -85.10  -88.14  -88.50
SO YBADJ    COOL2_21    10.26   13.09   15.52   19.92    0.27   20.26
SO YBADJ    COOL2_21     4.65  -11.11   18.72   17.20   15.16   15.82
SO YBADJ    COOL2_21    -2.91  -21.54    3.20   -0.28   -3.76   -7.12
SO YBADJ    COOL2_21   -10.26  -13.09  -15.52  -17.48  -18.92  -19.77
SO YBADJ    COOL2_21   -20.03  -19.67  -18.72  -17.20  -15.16  -12.65
SO YBADJ    COOL2_21    -9.77   -6.58   -3.20    0.28    3.76    7.12

SO BUILDHGT COOL2_22    14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL2_22    31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL2_22    31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL2_22    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_22    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_22    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_22    62.37   97.33  129.33   39.26   35.39   30.44
SO BUILDWID COOL2_22    24.57   17.96   10.80  215.91  211.84  201.33
SO BUILDWID COOL2_22    34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL2_22    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_22   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_22   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_22   215.91  211.84  201.33   34.48   38.57   41.50
SO BUILDLEN COOL2_22    43.16   43.51   42.54   62.37   97.33  129.33
SO BUILDLEN COOL2_22    39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL2_22   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_22   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_22   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_22   -75.01  -75.77  -74.23 -116.55 -122.36 -124.46
SO XBADJ    COOL2_22 -106.61 -108.92 -107.93  -44.41  -67.41  -88.36
SO XBADJ    COOL2_22 -137.65 -135.52 -129.28 -140.27 -143.29 -141.96
SO XBADJ    COOL2_22 -140.90 -136.07 -127.10 -114.27  -97.96  -78.68
SO XBADJ    COOL2_22   -57.01  -33.61   -9.19  -17.96  -29.92  -40.97
SO XBADJ    COOL2_22   -50.77  -59.03  -65.50  -69.98  -72.33  -72.48
SO YBADJ    COOL2_22    13.23   18.75   23.70   30.37   12.66   -5.43
SO YBADJ    COOL2_22    19.77    4.70  -10.51   32.94   30.15   26.43
SO YBADJ    COOL2_22     9.24  -11.39  -31.68    5.02   -1.16   -7.31
SO YBADJ    COOL2_22   -13.23  -18.75  -23.70  -27.93  -31.31  -33.74
SO YBADJ    COOL2_22   -35.14  -35.48  -34.74  -32.94  -30.15  -26.43
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SO	YBADJ	COOL2_22	-21.92	-16.73	-11.04	-5.02	1.16	7.31

SO	BUILDHGT	COOL3_01	14.94	31.39	31.39	31.39	31.39	31.39
SO	BUILDHGT	COOL3_01	31.39	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_01	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_01	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_01	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_01	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDWID	COOL3_01	62.37	43.33	41.93	39.26	35.39	30.44
SO	BUILDWID	COOL3_01	24.57	215.62	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL3_01	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDWID	COOL3_01	62.37	97.33	129.33	157.40	180.68	198.48
SO	BUILDWID	COOL3_01	210.24	215.62	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL3_01	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDLEN	COOL3_01	215.91	23.30	29.34	34.48	38.57	41.50
SO	BUILDLEN	COOL3_01	43.16	69.55	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL3_01	157.40	180.68	198.48	210.24	215.62	214.45
SO	BUILDLEN	COOL3_01	215.91	211.84	201.33	184.70	162.46	135.28
SO	BUILDLEN	COOL3_01	104.00	69.55	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL3_01	157.40	180.68	198.48	210.24	215.62	214.45
SO	XBADJ	COOL3_01	-207.86	-173.08	-177.42	-176.37	-108.73	-110.41
SO	XBADJ	COOL3_01	-108.73	-47.36	-11.22	-8.22	-8.70	-8.91
SO	XBADJ	COOL3_01	-8.85	-8.53	-7.95	-7.12	-6.08	-4.85
SO	XBADJ	COOL3_01	-8.05	-11.52	-14.64	-17.32	-19.47	-21.02
SO	XBADJ	COOL3_01	-21.94	-22.19	-21.77	-54.16	-88.63	-120.42
SO	XBADJ	COOL3_01	-148.54	-172.15	-190.53	-203.13	-209.54	-209.60
SO	YBADJ	COOL3_01	-22.97	21.76	-6.61	-34.77	9.05	-6.62
SO	YBADJ	COOL3_01	-22.09	-101.73	-102.37	-99.90	-94.40	-86.02
SO	YBADJ	COOL3_01	-75.03	-61.76	-46.62	-30.06	-12.58	5.27
SO	YBADJ	COOL3_01	22.97	39.97	55.75	69.84	81.81	91.29
SO	YBADJ	COOL3_01	98.00	101.73	102.37	99.90	94.40	86.02
SO	YBADJ	COOL3_01	75.03	61.76	46.62	30.06	12.58	-5.27

SO	BUILDHGT	COOL3_02	14.94	31.39	31.39	31.39	31.39	31.39
SO	BUILDHGT	COOL3_02	31.39	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_02	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_02	14.94	14.94	14.94	14.94	31.39	31.39
SO	BUILDHGT	COOL3_02	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_02	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDWID	COOL3_02	62.37	43.33	41.93	39.26	35.39	30.44
SO	BUILDWID	COOL3_02	24.57	215.62	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL3_02	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDWID	COOL3_02	62.37	97.33	129.33	157.40	35.39	30.44
SO	BUILDWID	COOL3_02	210.24	215.62	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL3_02	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDLEN	COOL3_02	215.91	23.30	29.34	34.48	38.57	41.50
SO	BUILDLEN	COOL3_02	43.16	69.55	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL3_02	157.40	180.68	198.48	210.24	215.62	214.45
SO	BUILDLEN	COOL3_02	215.91	211.84	201.33	184.70	38.57	41.50
SO	BUILDLEN	COOL3_02	104.00	69.55	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL3_02	157.40	180.68	198.48	210.24	215.62	214.45
SO	XBADJ	COOL3_02	-189.62	-155.71	-161.45	-162.28	-96.96	-101.30
SO	XBADJ	COOL3_02	-102.56	-44.32	-11.41	-11.62	-15.22	-18.35
SO	XBADJ	COOL3_02	-20.92	-22.86	-24.10	-24.62	-24.38	-23.40
SO	XBADJ	COOL3_02	-26.29	-28.89	-30.61	-31.41	58.38	59.80
SO	XBADJ	COOL3_02	-28.11	-25.23	-21.58	-50.75	-82.11	-110.98
SO	XBADJ	COOL3_02	-136.47	-157.82	-174.37	-185.63	-191.24	-191.05
SO	YBADJ	COOL3_02	-19.56	28.28	2.83	-22.70	23.38	9.54
SO	YBADJ	COOL3_02	-4.59	-83.43	-83.82	-81.67	-77.03	-70.05
SO	YBADJ	COOL3_02	-60.94	-49.99	-37.51	-23.89	-9.55	5.08
SO	YBADJ	COOL3_02	19.56	33.45	46.31	57.77	-23.38	-9.54
SO	YBADJ	COOL3_02	80.51	83.43	83.82	81.67	77.03	70.05
SO	YBADJ	COOL3_02	60.94	49.99	37.51	23.89	9.55	-5.08

SO	BUILDHGT	COOL3_03	14.94	31.39	31.39	31.39	14.94	31.39
SO	BUILDHGT	COOL3_03	31.39	31.39	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_03	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_03	14.94	14.94	14.94	14.94	14.94	31.39
SO	BUILDHGT	COOL3_03	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_03	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDWID	COOL3_03	62.37	43.33	41.93	39.26	180.68	30.44
SO	BUILDWID	COOL3_03	24.57	17.96	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL3_03	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDWID	COOL3_03	62.37	97.33	129.33	157.40	180.68	30.44
SO	BUILDWID	COOL3_03	210.24	215.62	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL3_03	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDLEN	COOL3_03	215.91	23.30	29.34	34.48	162.46	41.50
SO	BUILDLEN	COOL3_03	43.16	43.51	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL3_03	157.40	180.68	198.48	210.24	215.62	214.45
SO	BUILDLEN	COOL3_03	215.91	211.84	201.33	184.70	162.46	41.50
SO	BUILDLEN	COOL3_03	104.00	69.55	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL3_03	157.40	180.68	198.48	210.24	215.62	214.45
SO	XBADJ	COOL3_03	-174.47	-141.19	-148.00	-150.31	-121.09	-93.33
SO	XBADJ	COOL3_03	-96.98	-97.69	-11.05	-13.93	-20.12	-25.70
SO	XBADJ	COOL3_03	-30.50	-34.37	-37.19	-38.89	-39.40	-38.72

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SO XBADJ     COOL3_03  -41.44  -43.41  -44.06  -43.37  -41.37   51.83
SO XBADJ     COOL3_03  -33.68  -28.24  -21.94  -48.44  -77.21 -103.63
SO XBADJ     COOL3_03 -126.90 -146.32 -161.29 -171.36 -176.22 -175.73
SO YBADJ     COOL3_03  -17.26   33.18   10.18  -13.13  -55.98   22.63
SO YBADJ     COOL3_03    9.68   -3.56  -68.50  -66.52  -62.51  -56.60
SO YBADJ     COOL3_03  -48.98  -39.86  -29.54  -18.31   -6.53    5.44
SO YBADJ     COOL3_03   17.26   28.54   38.97   48.20   55.98  -22.63
SO YBADJ     COOL3_03   66.23   68.41   68.50   66.52   62.51   56.60
SO YBADJ     COOL3_03   48.98   39.86   29.54   18.31    6.53   -5.44

SO BUILDHGT COOL3_04   14.94   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL3_04   14.94   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_04   62.37   43.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL3_04  210.24   17.96   10.80   16.56  211.84  201.33
SO BUILDWID COOL3_04  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_04   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_04  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_04  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_04  215.91   23.30   29.34   34.48   38.57  135.28
SO BUILDLEN COOL3_04  104.00   43.51   42.54   43.42   97.33  129.33
SO BUILDLEN COOL3_04  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_04  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_04  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_04  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ     COOL3_04 -156.44 -166.90 -132.05 -136.15 -136.11  -87.81
SO XBADJ     COOL3_04  -63.80  -94.25  -95.15  -94.75  -26.10  -34.59
SO XBADJ     COOL3_04  -42.02  -48.17  -52.87  -55.95  -57.34  -56.98
SO XBADJ     COOL3_04  -59.47  -60.66  -60.01  -57.54  -53.32  -47.48
SO XBADJ     COOL3_04  -40.19  -31.69  -22.22  -45.55  -71.23  -94.74
SO XBADJ     COOL3_04 -115.38 -132.51 -145.61 -154.29 -158.28 -157.47
SO YBADJ     COOL3_04  -14.36   24.46   19.07   -1.60  -22.23  -46.37
SO YBADJ     COOL3_04  -49.17   14.37    1.57  -11.29  -45.26  -40.65
SO YBADJ     COOL3_04  -34.81  -27.91  -20.16  -11.81   -3.09    5.72
SO YBADJ     COOL3_04   14.36   22.56   30.08   36.68   42.17   46.37
SO YBADJ     COOL3_04   49.17   50.47   50.24   48.49   45.26   40.65
SO YBADJ     COOL3_04   34.81   27.91   20.16   11.81    3.09   -5.72

SO BUILDHGT COOL3_05   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_05   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_05   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_05   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_05   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_05   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_05   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_05  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL3_05  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_05   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_05  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL3_05  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_05  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_05  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL3_05  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_05  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_05  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL3_05  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ     COOL3_05 -140.63 -151.68 -117.88 -123.46 -125.29 -123.32
SO XBADJ     COOL3_05  -57.65  -34.35  -10.01  -96.76  -96.36  -93.04
SO XBADJ     COOL3_05  -51.67  -59.88  -66.27  -70.65  -72.88  -72.90
SO XBADJ     COOL3_05  -75.28  -75.88  -74.18  -70.22  -64.13  -56.10
SO XBADJ     COOL3_05  -46.35  -35.20  -22.98  -43.53  -66.50   51.11
SO XBADJ     COOL3_05 -105.73 -120.80 -132.21 -139.59 -142.74 -141.55
SO YBADJ     COOL3_05  -12.35   29.19   26.37    8.05  -10.52  -28.77
SO YBADJ     COOL3_05  -34.47  -34.93  -34.32    4.52   -8.58  -21.42
SO YBADJ     COOL3_05  -22.13  -17.10  -11.55   -5.65    0.42    6.48
SO YBADJ     COOL3_05   12.35   17.83   22.78   27.03   30.46   32.97
SO YBADJ     COOL3_05   34.47   34.93   34.32   32.68   30.04   21.42
SO YBADJ     COOL3_05   22.13   17.10   11.55    5.65   -0.42   -6.48

SO BUILDHGT COOL3_06   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_06   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_06   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_06   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_06   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_06   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_06   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_06  210.24  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL3_06   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_06   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_06  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_06   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_06  215.91   23.30   29.34   34.48   38.57   41.50
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SO BUILDLEN COOL3_06  104.00   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL3_06   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_06  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_06  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_06   39.26   35.39  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_06 -123.83 -135.69 -103.18 -110.50 -114.46 -114.95
SO XBADJ    COOL3_06  -51.99  -31.59  -10.22  -22.02 -102.41 -101.77
SO XBADJ    COOL3_06  -98.04  -91.33  -81.19  -86.79  -89.76  -90.00
SO XBADJ    COOL3_06  -92.08  -91.88  -88.89  -83.19  -74.97  -64.46
SO XBADJ    COOL3_06  -52.00  -37.96  -22.77  -40.36  -60.45  -78.71
SO XBADJ    COOL3_06   58.78   55.94 -117.29 -123.45 -125.86 -124.45
SO YBADJ    COOL3_06   -9.17   35.23   35.10   19.20    2.71  -13.85
SO YBADJ    COOL3_06  -18.33  -18.05  -17.22  -15.87    7.42   -6.72
SO YBADJ    COOL3_06  -20.65  -33.95   -3.18    0.00    3.19    6.27
SO YBADJ    COOL3_06    9.17   11.79   14.04   15.88   17.23   18.05
SO YBADJ    COOL3_06   18.33   18.05   17.22   15.87   14.04   11.78
SO YBADJ    COOL3_06   20.65   33.95    3.18    0.00   -3.19   -6.27


SO BUILDHGT COOL3_07   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_07   31.39   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_07   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_07   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_07   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_07   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_07   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_07   24.57  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL3_07   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_07   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_07  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_07  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_07  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_07   43.16   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL3_07   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_07  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_07  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_07  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_07 -109.26 -105.92 -129.86  -98.77 -104.45 -106.95
SO XBADJ    COOL3_07 -106.21  -28.28   -9.45  -23.81 -106.70 -108.43
SO XBADJ    COOL3_07 -106.87 -102.06  -93.50 -100.30 -104.06 -104.66
SO XBADJ    COOL3_07 -106.66 -105.92 -101.97  -94.91  -84.98  -72.46
SO XBADJ    COOL3_07  -57.74  -41.27  -23.54  -38.57  -56.16  -72.05
SO XBADJ    COOL3_07  -85.74  -96.83 -104.98 -109.94 -111.56 -109.79
SO YBADJ    COOL3_07   -7.38   -7.50   19.82   28.03   13.45   -1.54
SO YBADJ    COOL3_07  -16.49   -3.75   -2.56   -1.30   21.46    6.36
SO YBADJ    COOL3_07   -8.92  -23.94    4.82    5.74    6.49    7.04
SO YBADJ    COOL3_07    7.38    7.50    7.38    7.04    6.49    5.74
SO YBADJ    COOL3_07    4.82    3.75    2.56    1.30    0.00   -1.30
SO YBADJ    COOL3_07   -2.56   -3.75   -4.82   -5.74   -6.49   -7.04


SO BUILDHGT COOL3_08   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_08   31.39   31.39   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_08   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL3_08   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_08   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_08   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_08   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_08   24.57   17.96  214.45  215.91  211.84   29.34
SO BUILDWID COOL3_08   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL3_08   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL3_08  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_08  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_08  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_08   43.16   43.51   32.99   62.37   97.33   41.93
SO BUILDLEN COOL3_08   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL3_08  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL3_08  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_08  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_08  -91.91  -89.23 -114.33 -120.23  -92.62 -121.01
SO XBADJ    COOL3_08  -99.50  -98.44   -8.68  -26.08  -46.42 -116.51
SO XBADJ    COOL3_08 -117.52 -114.96 -108.91 -116.47 -121.14 -122.14
SO XBADJ    COOL3_08 -124.00 -122.61 -117.49 -108.80   54.05   56.05
SO XBADJ    COOL3_08  -64.44  -45.06  -24.31  -36.29  -50.91  -63.97
SO XBADJ    COOL3_08  -75.10  -83.94  -90.23  -93.78  -94.48  -92.31
SO YBADJ    COOL3_08   -5.10   -2.24   27.90   10.17   26.35  -25.67
SO YBADJ    COOL3_08   -0.33  -13.85   14.92   16.05   16.69   21.89
SO YBADJ    COOL3_08    4.96  -12.11  -28.82   12.44   10.29    7.81
SO YBADJ    COOL3_08    5.10    2.24   -0.69   -3.60  -26.35  -13.21
SO YBADJ    COOL3_08  -11.35  -13.33  -14.92  -16.05  -16.69  -16.83
SO YBADJ    COOL3_08  -16.45  -15.57  -14.23  -12.44  -10.29   -7.81


SO BUILDHGT COOL3_09   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_09   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_09   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL3_09   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_09   14.94   14.94   14.94   14.94   14.94   14.94
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SO BUILDHGT COOL3_09   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_09   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_09   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_09   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL3_09   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL3_09  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_09  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_09  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_09   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_09   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL3_09  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL3_09  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_09  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_09  -76.06  -74.15 -100.47 -108.02 -112.28 -113.13
SO XBADJ    COOL3_09  -94.19  -95.85   -8.90  -29.10  -52.15  -73.61
SO XBADJ    COOL3_09 -128.05 -127.46 -122.98 -131.70 -137.07 -138.27
SO XBADJ    COOL3_09 -139.85 -137.69 -131.35 -121.01 -107.00   48.17
SO XBADJ    COOL3_09  -69.75  -47.64  -24.09  -33.27  -45.18  -55.72
SO XBADJ    COOL3_09  -64.56  -71.44  -76.15  -78.54  -78.55  -76.18
SO YBADJ    COOL3_09   -2.09    3.48   36.15   20.70    4.62  -11.59
SO YBADJ    COOL3_09   14.91    2.07   31.05   31.89   31.77   30.68
SO YBADJ    COOL3_09   17.18   -1.91  -20.94   17.75   12.87    7.59
SO YBADJ    COOL3_09    2.09   -3.48   -8.95  -14.14  -18.90  -27.29
SO YBADJ    COOL3_09  -26.58  -29.26  -31.05  -31.89  -31.77  -30.68
SO YBADJ    COOL3_09  -28.66  -25.77  -22.10  -17.75  -12.87   -7.59


SO BUILDHGT COOL3_10   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_10   31.39   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL3_10   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_10   14.94   14.94   14.94   31.39   14.94   14.94
SO BUILDHGT COOL3_10   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_10   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_10   62.37   97.33  129.33   39.26   35.39   30.44
SO BUILDWID COOL3_10   24.57   17.96   10.80   16.56   23.30  201.33
SO BUILDWID COOL3_10   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL3_10   62.37   97.33  129.33   39.26  180.68  198.48
SO BUILDWID COOL3_10  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_10  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_10  215.91  211.84  201.33   34.48   38.57   41.50
SO BUILDLEN COOL3_10   43.16   43.51   42.54   43.42   43.33  129.33
SO BUILDLEN COOL3_10   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL3_10  215.91  211.84  201.33   34.48  162.46  135.28
SO BUILDLEN COOL3_10  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_10  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_10  -60.33  -59.08  -56.04  -95.64 -101.83 -104.93
SO XBADJ    COOL3_10 -104.84  -92.81  -94.32  -94.54  -92.06  -81.33
SO XBADJ    COOL3_10 -138.08 -139.48 -136.64 -129.65 -152.71 -154.20
SO XBADJ    COOL3_10 -155.59 -152.76 -145.28   61.16 -117.46  -97.95
SO XBADJ    COOL3_10  -75.46  -50.69  -24.37  -30.78  -40.00  -47.99
SO XBADJ    COOL3_10  -54.53  -59.42  -62.49  -63.67  -62.91  -60.25
SO YBADJ    COOL3_10    0.40    8.67   16.67   30.73   16.65    2.06
SO YBADJ    COOL3_10  -12.59   17.71    5.10   -7.66  -20.19   44.62
SO YBADJ    COOL3_10   29.56    8.54  -12.73  -33.62   15.91    7.87
SO YBADJ    COOL3_10   -0.40   -8.67  -16.67  -30.73  -30.93  -36.75
SO YBADJ    COOL3_10  -41.45  -44.90  -46.98  -47.63  -46.84  -44.62
SO YBADJ    COOL3_10  -41.05  -36.23  -30.31  -23.47  -15.91   -7.87


SO BUILDHGT COOL3_11   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_11   31.39   31.39   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_11   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_11   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_11   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_11   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_11   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL3_11   24.57   17.96  214.45   16.56   23.30   29.34
SO BUILDWID COOL3_11   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL3_11   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL3_11  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL3_11   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_11  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL3_11   43.16   43.51   32.99   43.42   43.33   41.93
SO BUILDLEN COOL3_11   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL3_11  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL3_11  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL3_11   39.26  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_11  -44.59  -44.02  -42.11  -38.92  -91.37  -96.72
SO XBADJ    COOL3_11  -99.12  -98.52   -8.34  -97.03  -97.24  -94.51
SO XBADJ    COOL3_11  -88.89 -151.50 -150.30 -144.52 -168.35 -170.13
SO XBADJ    COOL3_11 -171.32 -167.82 -159.22 -145.78   52.80   55.22
SO XBADJ    COOL3_11  -81.18  -53.73  -24.65  -28.29  -34.81   52.57
SO XBADJ    COOL3_11   49.64  -47.39  -48.84  -48.80  -47.28  -44.32
SO YBADJ    COOL3_11    2.89   13.85   24.39   34.19   28.67   15.72
SO YBADJ    COOL3_11    2.29  -11.21   62.91    8.08   -5.13  -18.17
SO YBADJ    COOL3_11  -30.67   19.00   -4.53  -27.91   18.95    8.15
SO YBADJ    COOL3_11   -2.89  -13.85  -24.39  -34.19  -28.67  -15.72
SO YBADJ    COOL3_11  -56.32  -60.54  -62.91  -63.37  -61.90   18.17
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SO YBADJ    COOL3_11   30.67  -46.68  -38.51  -29.18  -18.95   -8.15

SO BUILDHGT COOL3_12   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_12   31.39   31.39   31.39   14.94   31.39   31.39
SO BUILDHGT COOL3_12   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_12   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_12   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_12   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_12   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL3_12   24.57   17.96   10.80  215.91   23.30   29.34
SO BUILDWID COOL3_12   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL3_12   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL3_12   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_12   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_12  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL3_12   43.16   43.51   42.54   62.37   43.33   41.93
SO BUILDLEN COOL3_12   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL3_12  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL3_12   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_12   39.26   35.39  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_12  -27.84  -27.79  -26.90  -25.19  -22.71  -87.14
SO XBADJ    COOL3_12  -92.09  -94.24  -93.53  -35.62 -101.67 -101.68
SO XBADJ    COOL3_12  -98.60 -163.45 -164.12 -159.80 -184.61 -186.89
SO XBADJ    COOL3_12 -188.07 -184.05 -174.43 -159.51 -139.75   45.64
SO XBADJ    COOL3_12   48.93  -58.01  -26.04  -26.75  -30.38  -33.10
SO XBADJ    COOL3_12   59.35   57.14  -35.02  -33.52  -31.01  -27.56
SO YBADJ    COOL3_12    4.44   18.28   31.57   43.90   54.89   29.54
SO YBADJ    COOL3_12   17.56    5.05   -7.61   80.11   11.10   -2.96
SO YBADJ    COOL3_12  -16.93   30.84    5.06  -20.87   23.23    9.54
SO YBADJ    COOL3_12   -4.44  -18.28  -31.57  -43.90  -54.89  -29.54
SO YBADJ    COOL3_12  -17.56  -76.80  -79.67  -80.11  -78.13  -73.77
SO YBADJ    COOL3_12   16.93   30.39  -48.10  -36.22  -23.23   -9.54

SO BUILDHGT COOL3_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_13   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_13   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_13   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_13   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_13  210.24  215.62   10.80   16.56   23.30   29.34
SO BUILDWID COOL3_13   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL3_13   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_13  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL3_13  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_13  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_13  104.00   69.55   42.54   43.42   43.33   41.93
SO BUILDLEN COOL3_13   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL3_13  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_13  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL3_13  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_13  -10.43  -11.12  -11.48  -11.49  -11.15  -10.47
SO XBADJ    COOL3_13   -9.47   -8.19  -93.23  -94.32  -92.71 -110.24
SO XBADJ    COOL3_13 -109.71 -105.84 -179.23 -176.26 -201.92 -204.52
SO XBADJ    COOL3_13 -205.48 -200.72 -189.85 -173.21 -151.31 -124.82
SO XBADJ    COOL3_13  -94.53  -61.36  -26.34  -23.99  -24.64   46.36
SO XBADJ    COOL3_13  -23.70  -22.13  -19.90  -17.06  -13.70   -9.93
SO YBADJ    COOL3_13    7.20   24.03   40.12   55.00   68.21   79.34
SO YBADJ    COOL3_13   88.06   94.11   10.02   -2.63  -15.20   12.46
SO YBADJ    COOL3_13   -3.24  -18.83   14.13  -14.56   26.59    9.84
SO YBADJ    COOL3_13   -7.20  -24.03  -40.12  -55.00  -68.21  -79.34
SO YBADJ    COOL3_13  -88.06  -94.11  -97.30  -97.53  -94.80   27.31
SO YBADJ    COOL3_13  -80.86  -70.08  -57.17  -42.53  -26.59   -9.84

SO BUILDHGT COOL3_14   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_14   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_14   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_14   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_14  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_14   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_14  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_14  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_14  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_14   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_14  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_14  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_14  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_14  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_14 -210.60 -178.50 -185.35 -186.57 -120.90 -124.17
SO XBADJ    COOL3_14 -123.66  -63.01  -27.12  -23.88  -23.64  -22.69
SO XBADJ    COOL3_14  -21.05  -18.76  -15.91  -12.58   -8.86   -4.87
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SO	XBADJ	COOL3_14	-5.31	-6.10	-6.71	-7.11	-7.30	-7.26
SO	XBADJ	COOL3_14	-7.01	-6.54	-5.87	-38.50	-73.69	-106.64
SO	XBADJ	COOL3_14	-136.35	-161.92	-182.57	-197.67	-206.76	-209.58
SO	YBADJ	COOL3_14	-7.31	36.70	7.17	-22.57	19.28	1.35
SO	YBADJ	COOL3_14	-16.63	-98.95	-102.35	-102.64	-99.81	-93.95
SO	YBADJ	COOL3_14	-85.24	-73.93	-60.38	-44.99	-28.24	-10.63
SO	YBADJ	COOL3_14	7.31	25.02	41.97	57.65	71.58	83.33
SO	YBADJ	COOL3_14	92.55	98.95	102.35	102.64	99.81	93.95
SO	YBADJ	COOL3_14	85.24	73.93	60.38	44.99	28.24	10.63
SO	BUILDHGT	COOL3_15	14.94	14.94	31.39	31.39	31.39	31.39
SO	BUILDHGT	COOL3_15	31.39	31.39	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_15	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_15	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_15	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_15	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDWID	COOL3_15	62.37	97.33	41.93	39.26	35.39	30.44
SO	BUILDWID	COOL3_15	24.57	17.96	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL3_15	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDWID	COOL3_15	62.37	97.33	129.33	157.40	180.68	198.48
SO	BUILDWID	COOL3_15	210.24	215.62	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL3_15	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDLEN	COOL3_15	215.91	211.84	29.34	34.48	38.57	41.50
SO	BUILDLEN	COOL3_15	43.16	43.51	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL3_15	157.40	180.68	198.48	210.24	215.62	214.45
SO	BUILDLEN	COOL3_15	215.91	211.84	201.33	184.70	162.46	135.28
SO	BUILDLEN	COOL3_15	104.00	69.55	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL3_15	157.40	180.68	198.48	210.24	215.62	214.45
SO	XBADJ	COOL3_15	-192.66	-188.56	-169.48	-172.48	-109.01	-114.84
SO	XBADJ	COOL3_15	-117.18	-115.97	-26.84	-26.76	-29.59	-31.53
SO	XBADJ	COOL3_15	-32.51	-32.50	-31.51	-29.55	-26.70	-23.04
SO	XBADJ	COOL3_15	-23.26	-23.27	-22.59	-21.21	-19.19	-16.59
SO	XBADJ	COOL3_15	-13.48	-9.97	-6.15	-35.62	-67.73	-97.79
SO	XBADJ	COOL3_15	-124.88	-148.18	-166.97	-180.69	-188.92	-191.41
SO	YBADJ	COOL3_15	-4.43	-19.07	16.02	-11.11	33.02	16.94
SO	YBADJ	COOL3_15	0.34	-16.26	-84.18	-84.70	-82.64	-78.08
SO	YBADJ	COOL3_15	-71.14	-62.04	-51.05	-38.51	-24.81	-10.35
SO	YBADJ	COOL3_15	4.43	19.07	33.13	46.19	57.84	67.73
SO	YBADJ	COOL3_15	75.57	81.11	84.18	84.70	82.64	78.08
SO	YBADJ	COOL3_15	71.14	62.04	51.05	38.51	24.81	10.35
SO	BUILDHGT	COOL3_16	14.94	14.94	31.39	31.39	31.39	31.39
SO	BUILDHGT	COOL3_16	31.39	31.39	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_16	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_16	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_16	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_16	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDWID	COOL3_16	62.37	97.33	41.93	39.26	35.39	30.44
SO	BUILDWID	COOL3_16	24.57	17.96	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL3_16	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDWID	COOL3_16	62.37	97.33	129.33	157.40	180.68	198.48
SO	BUILDWID	COOL3_16	210.24	215.62	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL3_16	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDLEN	COOL3_16	215.91	211.84	29.34	34.48	38.57	41.50
SO	BUILDLEN	COOL3_16	43.16	43.51	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL3_16	157.40	180.68	198.48	210.24	215.62	214.45
SO	BUILDLEN	COOL3_16	215.91	211.84	201.33	184.70	162.46	135.28
SO	BUILDLEN	COOL3_16	104.00	69.55	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL3_16	157.40	180.68	198.48	210.24	215.62	214.45
SO	XBADJ	COOL3_16	-176.99	-173.48	-155.43	-159.91	-159.52	-106.30
SO	XBADJ	COOL3_16	-111.08	-112.49	-26.09	-28.76	-34.29	-38.77
SO	XBADJ	COOL3_16	-42.08	-44.11	-44.80	-44.13	-42.11	-38.82
SO	XBADJ	COOL3_16	-38.93	-38.36	-36.63	-33.78	-29.91	-25.13
SO	XBADJ	COOL3_16	-19.59	-13.45	-6.90	-33.61	-63.04	-90.55
SO	XBADJ	COOL3_16	-115.32	-136.57	-153.68	-166.12	-173.51	-175.63
SO	YBADJ	COOL3_16	-2.43	-14.38	23.26	-1.54	-26.29	30.23
SO	YBADJ	COOL3_16	14.92	-0.85	-68.40	-69.03	-67.56	-64.04
SO	YBADJ	COOL3_16	-58.57	-51.32	-42.51	-32.41	-21.33	-9.60
SO	YBADJ	COOL3_16	2.43	14.38	25.89	36.62	46.23	54.44
SO	YBADJ	COOL3_16	61.00	65.70	68.40	69.03	67.56	64.04
SO	YBADJ	COOL3_16	58.57	51.32	42.51	32.41	21.33	9.60
SO	BUILDHGT	COOL3_17	14.94	14.94	31.39	31.39	31.39	14.94
SO	BUILDHGT	COOL3_17	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_17	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_17	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_17	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_17	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDWID	COOL3_17	62.37	97.33	41.93	39.26	35.39	198.48
SO	BUILDWID	COOL3_17	210.24	215.62	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL3_17	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDWID	COOL3_17	62.37	97.33	129.33	157.40	180.68	198.48
SO	BUILDWID	COOL3_17	210.24	215.62	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL3_17	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDLEN	COOL3_17	215.91	211.84	29.34	34.48	38.57	135.28

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SO BUILDLEN COOL3_17  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_17  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_17  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_17  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_17  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_17 -159.22 -156.40 -139.55 -145.70 -147.42 -100.54
SO XBADJ    COOL3_17  -77.57  -52.24  -25.32  -31.11  -39.69  -47.06
SO XBADJ    COOL3_17  -53.00  -57.33  -59.92  -60.68  -59.61  -56.72
SO XBADJ    COOL3_17  -56.69  -55.44  -52.51  -47.99  -42.01  -34.75
SO XBADJ    COOL3_17  -26.43  -17.31   -7.67  -31.26  -57.64  -82.27
SO XBADJ    COOL3_17 -104.40 -123.36 -138.56 -149.56 -156.01 -157.73
SO YBADJ    COOL3_17   -0.08   -8.98   31.54    9.38  -13.07  -39.32
SO YBADJ    COOL3_17  -44.44  -48.20  -50.50  -51.27  -50.48  -48.15
SO YBADJ    COOL3_17  -44.36  -39.22  -32.90  -25.57  -17.46   -8.83
SO YBADJ    COOL3_17    0.08    8.98   17.61   25.70   33.01   39.32
SO YBADJ    COOL3_17   44.44   48.20   50.50   51.27   50.48   48.15
SO YBADJ    COOL3_17   44.36   39.22   32.90   25.57   17.46    8.83

SO BUILDHGT COOL3_18   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_18   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_18   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_18  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL3_18  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_18   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_18  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_18  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_18  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_18  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL3_18  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_18  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_18  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_18  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_18 -143.28 -141.04 -165.02 -132.91 -136.52 -135.98
SO XBADJ    COOL3_18  -71.36  -48.70  -24.56 -111.07 -110.00 -105.58
SO XBADJ    COOL3_18  -62.74  -69.14  -73.44  -75.52  -75.29  -72.78
SO XBADJ    COOL3_18  -72.64  -70.79  -66.80  -60.78  -52.91  -43.43
SO XBADJ    COOL3_18  -32.64  -20.85   -8.43  -29.22  -52.86  -74.90
SO XBADJ    COOL3_18  -94.66 -111.54 -125.03 -134.73 -140.33 -141.67
SO YBADJ    COOL3_18    1.96   -4.20   16.97   19.12   -1.26  -21.60
SO YBADJ    COOL3_18  -29.61  -32.52  -34.44    1.88  -13.67  -28.80
SO YBADJ    COOL3_18  -31.57  -28.32  -24.21  -19.36  -13.92   -8.07
SO YBADJ    COOL3_18   -1.96    4.20   10.24   15.96   21.20   25.80
SO YBADJ    COOL3_18   29.61   32.52   34.44   35.32   35.12   33.86
SO YBADJ    COOL3_18   31.57   28.32   24.21   19.36   13.92    8.07

SO BUILDHGT COOL3_19   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_19   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_19   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_19   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_19  210.24  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL3_19   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_19   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_19  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_19  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_19  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_19  104.00   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL3_19   39.26  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_19  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_19  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_19  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_19 -126.18 -124.60 -149.72 -119.22 -124.86 -126.70
SO XBADJ    COOL3_19  -64.75  -44.95  -23.79  -35.38 -115.16 -113.52
SO XBADJ    COOL3_19 -108.43  -81.84  -87.97  -91.43  -92.12  -90.00
SO XBADJ    COOL3_19  -89.73  -87.24  -82.10  -74.47  -64.57  -52.71
SO XBADJ    COOL3_19  -39.25  -24.60   -9.20  -26.99  -47.70  -66.96
SO XBADJ    COOL3_19  -84.18  -98.84 -110.51 -118.81 -123.51 -124.45
SO YBADJ    COOL3_19    4.19    0.97   24.91   29.60   11.44   -7.07
SO YBADJ    COOL3_19  -13.69  -15.69  -17.22  -18.23    2.78  -13.50
SO YBADJ    COOL3_19  -29.37  -16.66  -14.93  -12.75  -10.18   -7.30
SO YBADJ    COOL3_19   -4.19   -0.97    2.29    5.48    8.50   11.27
SO YBADJ    COOL3_19   13.69   15.69   17.22   18.23   18.68   18.56
SO YBADJ    COOL3_19   17.88   16.66   14.93   12.75   10.18    7.30

SO BUILDHGT COOL3_20   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_20   31.39   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_20   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_20   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_20   14.94   14.94   14.94   14.94   14.94   14.94
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SO BUILDHGT COOL3_20   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_20   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_20   24.57  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL3_20   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_20   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_20  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_20  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_20  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_20   43.16   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL3_20   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_20  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_20  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_20  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_20 -110.33 -109.51 -135.85 -142.34 -114.65 -118.82
SO XBADJ    COOL3_20 -119.38  -42.37  -24.01  -38.40 -120.89 -121.78
SO XBADJ    COOL3_20 -118.98 -112.56 -102.06 -106.68 -108.05 -106.14
SO XBADJ    COOL3_20 -105.58 -102.33  -95.97  -86.69  -74.78  -60.59
SO XBADJ    COOL3_20  -44.57  -27.18   -8.98  -23.97  -41.97  -58.70
SO XBADJ    COOL3_20  -73.64  -86.34  -96.42 -103.57 -107.57 -108.31
SO YBADJ    COOL3_20    7.21    6.69   33.17   11.62   23.94    7.02
SO YBADJ    COOL3_20  -10.12    0.24   -1.08   -2.37   17.87    0.37
SO YBADJ    COOL3_20  -17.15  -34.14   -7.05   -7.43   -7.59   -7.52
SO YBADJ    COOL3_20   -7.21   -6.69   -5.97   -5.06   -4.00   -2.82
SO YBADJ    COOL3_20   -1.55   -0.24    1.08    2.37    3.59    4.70
SO YBADJ    COOL3_20    5.66    6.45    7.05    7.43    7.59    7.52

SO BUILDHGT COOL3_21   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_21   31.39   31.39   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_21   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_21   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_21   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_21   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_21   62.37   97.33  129.33   39.26   35.39   30.44
SO BUILDWID COOL3_21   24.57   17.96  214.45  215.91  211.84   29.34
SO BUILDWID COOL3_21   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_21   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_21  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_21  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_21  215.91  211.84  201.33   34.48   38.57   41.50
SO BUILDLEN COOL3_21   43.16   43.51   32.99   62.37   97.33   41.93
SO BUILDLEN COOL3_21   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_21  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_21  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_21  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_21  -94.56  -94.41  -91.40 -129.94 -134.04 -134.06
SO XBADJ    COOL3_21 -113.66 -113.27  -23.73  -40.90  -60.55 -129.52
SO XBADJ    COOL3_21 -129.02 -124.60 -115.74 -121.58 -123.72 -122.10
SO XBADJ    COOL3_21 -121.35 -117.42 -109.93  -99.09  -85.25  -68.81
SO XBADJ    COOL3_21  -50.29  -30.23   -9.26  -21.48  -36.78  -50.96
SO XBADJ    COOL3_21  -63.59  -74.29  -82.74  -88.67  -91.90  -92.35
SO YBADJ    COOL3_21    9.71   11.89   13.71   21.67    1.77  -18.18
SO YBADJ    COOL3_21    4.78  -11.28   14.88   13.39   11.50   14.33
SO YBADJ    COOL3_21   -4.74  -23.66    1.17   -1.71   -4.54   -7.24
SO YBADJ    COOL3_21   -9.71  -11.89  -13.71  -15.11  -16.05  -16.50
SO YBADJ    COOL3_21  -16.45  -15.91  -14.88  -13.39  -11.50   -9.27
SO YBADJ    COOL3_21   -6.74   -4.02   -1.17    1.71    4.54    7.24

SO BUILDHGT COOL3_22   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_22   31.39   31.39   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_22   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL3_22   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_22   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_22   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_22   62.37   97.33  129.33   39.26   35.39   30.44
SO BUILDWID COOL3_22   24.57   17.96  214.45  215.91  211.84   29.34
SO BUILDWID COOL3_22   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL3_22   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_22  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_22  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_22  215.91  211.84  201.33   34.48   38.57   41.50
SO BUILDLEN COOL3_22   43.16   43.51   32.99   62.37   97.33   41.93
SO BUILDLEN COOL3_22   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL3_22  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_22  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_22  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_22  -78.80  -79.32  -77.44 -117.53 -123.56 -125.84
SO XBADJ    COOL3_22 -124.29 -110.22  -23.45  -43.39  -65.75 -137.26
SO XBADJ    COOL3_22 -139.07 -136.65 -130.08 -136.48 -139.39 -138.06
SO XBADJ    COOL3_22 -137.12 -132.52 -123.89 -111.50  -95.72  -77.04
SO XBADJ    COOL3_22  -56.01  -33.28   -9.54  -18.98  -31.58  -43.22
SO XBADJ    COOL3_22  -53.55  -62.25  -69.06  -73.77  -76.23  -76.39
SO YBADJ    COOL3_22   12.21   17.08   21.44   31.71   13.82   -4.50
SO YBADJ    COOL3_22  -22.68    4.39   30.84   29.16   26.60   28.29
SO YBADJ    COOL3_22    7.67  -13.19  -33.65    4.01   -1.50   -6.96
SO YBADJ    COOL3_22  -12.21  -17.08  -21.44  -25.15  -28.09  -30.18
SO YBADJ    COOL3_22  -31.36  -31.58  -30.84  -29.16  -26.60  -23.23
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SO YBADJ    COOL3_22  -19.15  -14.49   -9.39   -4.01    1.50    6.96


SO BUILDHGT COOL1_23   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL1_23   31.39   14.94   31.39   31.39   31.39   14.94
SO BUILDHGT COOL1_23   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL1_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_23   62.37   97.33  129.33  157.39   35.39   30.44
SO BUILDWID COOL1_23   24.57  215.62   10.80   16.56   23.30  201.33
SO BUILDWID COOL1_23   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL1_23   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_23  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_23  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_23  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL1_23   43.16   69.55   42.54   43.42   43.33  129.33
SO BUILDLEN COOL1_23   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL1_23  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_23  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_23  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_23  -58.98  -60.46  -60.10  -57.92 -111.09 -116.18
SO XBADJ    COOL1_23 -117.73  -33.04 -110.18 -110.85 -108.34  -96.43
SO XBADJ    COOL1_23 -152.71 -152.75 -148.14 -155.53 -159.30 -158.24
SO XBADJ    COOL1_23 -156.94 -151.38 -141.23 -126.78 -108.48  -86.89
SO XBADJ    COOL1_23  -62.65  -36.51   -9.27  -15.21  -24.42  -32.90
SO XBADJ    COOL1_23  -40.37  -46.62  -51.45  -54.71  -56.32  -56.21
SO YBADJ    COOL1_23   15.98   24.24   31.77   38.33   28.91   12.52
SO YBADJ    COOL1_23   -4.24   51.49    9.15   -6.43  -21.81   40.56
SO YBADJ    COOL1_23   23.01   -0.45  -23.89   10.65    1.74   -7.23
SO YBADJ    COOL1_23  -15.98  -24.24  -31.77  -38.33  -43.72  -47.79
SO YBADJ    COOL1_23  -50.41  -51.49  -51.01  -48.98  -45.46  -40.56
SO YBADJ    COOL1_23  -34.43  -27.25  -19.24  -10.65   -1.74    7.23


SO BUILDHGT COOL1_24   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL1_24   31.39   31.39   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_24   14.94   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL1_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_24   62.37   97.33  129.33  157.39  180.68   30.44
SO BUILDWID COOL1_24   24.57   17.96  214.45   16.56   23.30   29.34
SO BUILDWID COOL1_24  184.70   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL1_24   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_24  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_24  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_24  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL1_24   43.16   43.51   32.99   43.42   43.33   41.93
SO BUILDLEN COOL1_24  157.39   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL1_24  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_24  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_24  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_24  -44.36  -46.41  -47.06  -46.27  -44.08 -108.32
SO XBADJ    COOL1_24 -112.17 -112.60  -23.16 -112.86 -112.86 -109.42
SO XBADJ    COOL1_24 -126.07 -163.68 -160.63 -169.19 -173.72 -172.98
SO XBADJ    COOL1_24 -171.55 -165.42 -154.27 -138.43 -118.39  -94.74
SO XBADJ    COOL1_24  -68.22  -39.62   -9.83  -13.20  -19.91  -26.01
SO XBADJ    COOL1_24  -31.32  -35.69  -38.96  -41.05  -41.90  -41.47
SO YBADJ    COOL1_24   17.99   28.76   38.65   47.37   54.66   25.01
SO YBADJ    COOL1_24    9.42   -6.45   65.75    8.18   -7.77  -23.49
SO YBADJ    COOL1_24   46.08    9.46  -16.04   16.22    4.85   -6.67
SO YBADJ    COOL1_24  -17.99  -28.76  -38.65  -47.37  -54.66  -60.28
SO YBADJ    COOL1_24  -64.07  -65.91  -65.75  -63.59  -59.51  -53.61
SO YBADJ    COOL1_24  -46.08  -37.16  -27.10  -16.22   -4.85    6.67


SO BUILDHGT COOL1_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_25   14.94   31.39   31.39   14.94   31.39   31.39
SO BUILDHGT COOL1_25   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL1_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_25   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_25  210.24   17.96   10.80  215.91   23.30   29.34
SO BUILDWID COOL1_25   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL1_25   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_25  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_25  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_25  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_25  104.00   43.51   42.54   62.37   43.33   41.93
SO BUILDLEN COOL1_25   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL1_25  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_25  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_25  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_25  -27.79  -30.54  -32.36  -33.20  -33.03  -31.85
SO XBADJ    COOL1_25  -29.71 -109.34 -109.25  -51.73 -118.25 -117.49
SO XBADJ    COOL1_25 -113.16 -176.28 -174.96 -168.33 -190.16 -189.74
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SO XBADJ     COOL1_25 -188.12 -181.30 -168.97 -151.50 -129.43 -103.43
SO XBADJ     COOL1_25  -74.29  -42.89  -10.19  -10.65  -14.51  -17.94
SO XBADJ     COOL1_25  -20.83  -23.08  -24.63  -25.43  -25.46  -24.71
SO YBADJ     COOL1_25   20.54   34.15   46.72   57.87   67.26   74.61
SO YBADJ     COOL1_25   79.69    9.99   -5.37   80.16    8.10   -8.79
SO YBADJ     COOL1_25  -25.42   20.51   -7.34  -34.97    8.11   -6.31
SO YBADJ     COOL1_25  -20.54  -34.15  -46.72  -57.87  -67.26  -74.61
SO YBADJ     COOL1_25  -79.69  -82.35  -82.51  -80.16  -75.38  -68.30
SO YBADJ     COOL1_25  -59.15  -48.20  -35.79  -22.29   -8.11    6.31

SO BUILDHGT COOL1_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_26   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_26   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_26   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_26  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL1_26   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_26   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_26  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_26  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_26  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_26  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL1_26   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_26  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_26  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_26  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_26  -10.82  -14.25  -17.24  -19.72  -21.59  -22.80
SO XBADJ    COOL1_26  -23.33  -23.14  -22.25 -109.86 -107.86 -125.58
SO XBADJ    COOL1_26 -123.75 -118.17 -188.42 -200.73 -206.95 -206.88
SO XBADJ    COOL1_26 -205.09 -197.59 -184.09 -164.99 -140.87 -112.48
SO XBADJ    COOL1_26  -80.67  -46.41  -10.74   -8.21   -9.17   -9.85
SO XBADJ    COOL1_26  -10.23  -10.30  -10.06   -9.51   -8.67   -7.57
SO YBADJ    COOL1_26   22.98   39.49   54.81   68.47   80.04   89.18
SO YBADJ    COOL1_26   95.61   99.14   99.65   -3.59  -18.84    6.33
SO YBADJ    COOL1_26  -11.93  -29.83   44.84   28.67   11.63   -5.76
SO YBADJ    COOL1_26  -22.98  -39.49  -54.81  -68.47  -80.04  -89.18
SO YBADJ    COOL1_26  -95.61  -99.14  -99.65  -97.14  -91.67  -83.42
SO YBADJ    COOL1_26  -72.64  -59.64  -44.84  -28.67  -11.63    5.76

SO BUILDHGT COOL2_23   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_23   31.39   14.94   31.39   31.39   14.94   14.94
SO BUILDHGT COOL2_23   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL2_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_23   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL2_23   24.57  215.62   10.80   16.56  211.84  201.33
SO BUILDWID COOL2_23   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL2_23   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_23  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_23  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_23  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL2_23   43.16   69.55   42.54   43.42   97.33  129.33
SO BUILDLEN COOL2_23   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL2_23  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_23  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_23  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_23  -59.24  -60.73  -60.37  -58.17 -112.07 -116.45
SO XBADJ    COOL2_23 -117.29  -33.16 -107.93 -108.01  -72.89  -96.37
SO XBADJ    COOL2_23 -147.94 -147.79 -143.15 -155.31 -159.06 -157.97
SO XBADJ    COOL2_23 -156.67 -151.11 -140.96 -126.53 -108.26  -86.69
SO XBADJ    COOL2_23  -62.49  -36.39   -9.19  -15.18  -24.44  -32.96
SO XBADJ    COOL2_23  -40.48  -46.77  -51.63  -54.93  -56.56  -56.47
SO YBADJ    COOL2_23   16.01   24.22   31.70   38.22   24.92    8.43
SO YBADJ    COOL2_23   -8.31   51.25    5.50   -9.63   45.19   40.30
SO YBADJ    COOL2_23   21.51   -1.10  -23.67   10.49    1.62   -7.31
SO YBADJ    COOL2_23  -16.01  -24.22  -31.70  -38.22  -43.57  -47.60
SO YBADJ    COOL2_23  -50.19  -51.25  -50.75  -48.71  -45.19  -40.30
SO YBADJ    COOL2_23  -34.18  -27.02  -19.05  -10.49   -1.62    7.31

SO BUILDHGT COOL2_24   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_24   31.39   31.39   14.94   31.39   31.39   31.39
SO BUILDHGT COOL2_24   14.94   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL2_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_24   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL2_24   24.57   17.96  214.45   16.56   23.30   29.34
SO BUILDWID COOL2_24  184.70   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL2_24   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_24  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_24  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_24  215.91  211.84  201.33  184.70  162.46   41.50
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SO BUILDLEN COOL2_24   43.16   43.51   32.99   43.42   43.33   41.93
SO BUILDLEN COOL2_24  157.40   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL2_24  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_24  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_24  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_24  -42.50  -44.75  -45.64  -45.15  -43.28 -107.95
SO XBADJ    COOL2_24 -111.48 -111.62  -23.80 -110.96 -110.80 -107.27
SO XBADJ    COOL2_24 -127.84 -160.81 -157.87 -171.29 -175.80 -174.97
SO XBADJ    COOL2_24 -173.41 -167.09 -155.68 -139.55 -119.18  -95.19
SO XBADJ    COOL2_24  -68.30  -39.34   -9.19  -12.23  -18.63  -24.46
SO XBADJ    COOL2_24  -29.55  -33.74  -36.91  -38.96  -39.82  -39.47
SO YBADJ    COOL2_24   18.96   30.04   40.20   49.15   56.60   23.16
SO YBADJ    COOL2_24    7.66   -8.07   67.75    7.11   -8.49  -23.84
SO YBADJ    COOL2_24   47.20    9.83  -15.17   16.31    4.57   -7.31
SO YBADJ    COOL2_24  -18.96  -30.04  -40.20  -49.15  -56.60  -62.33
SO YBADJ    COOL2_24  -66.16  -67.99  -67.75  -65.45  -61.17  -55.02
SO YBADJ    COOL2_24  -47.20  -37.95  -27.55  -16.31   -4.57    7.31

SO BUILDHGT COOL2_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_25   31.39   31.39   31.39   14.94   31.39   31.39
SO BUILDHGT COOL2_25   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL2_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_25   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_25   24.57   17.96   10.80  215.91   23.30   29.34
SO BUILDWID COOL2_25   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL2_25   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_25  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_25  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_25  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_25   43.16   43.51   42.54   62.37   43.33   41.93
SO BUILDLEN COOL2_25   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL2_25  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_25  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_25  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_25  -25.76  -28.78  -30.92  -32.12  -32.35  -31.59
SO XBADJ    COOL2_25 -105.66 -108.67 -108.37  -53.10 -116.61 -115.77
SO XBADJ    COOL2_25 -111.40 -173.83 -172.59 -166.11 -192.54 -191.97
SO XBADJ    COOL2_25 -190.15 -183.06 -170.41 -152.58 -130.11 -103.69
SO XBADJ    COOL2_25  -74.12  -42.30   -9.19   -9.27  -12.81  -15.96
SO XBADJ    COOL2_25  -18.62  -20.72  -22.19  -22.98  -23.08  -22.47
SO YBADJ    COOL2_25   21.91   35.85   48.70   60.07   69.62   77.05
SO YBADJ    COOL2_25   23.64    8.68   -6.55   82.19    7.48   -9.12
SO YBADJ    COOL2_25  -25.44   20.75   -6.67  -33.90    7.52   -7.31
SO YBADJ    COOL2_25  -21.91  -35.85  -48.70  -60.07  -69.62  -77.05
SO YBADJ    COOL2_25  -82.14  -84.73  -84.75  -82.19  -77.14  -69.74
SO YBADJ    COOL2_25  -60.23  -48.88  -36.05  -22.12   -7.52    7.31

SO BUILDHGT COOL2_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_26   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_26   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_26   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_26  210.24  215.62   10.80   16.56   23.30   29.34
SO BUILDWID COOL2_26   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_26   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_26  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_26  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_26  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_26  104.00   69.55   42.54   43.42   43.33   41.93
SO BUILDLEN COOL2_26   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_26  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_26  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_26  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_26  -10.00  -13.74  -17.06  -19.87  -22.07  -23.59
SO XBADJ    COOL2_26  -24.41  -24.48 -108.37 -109.13 -106.75 -123.77
SO XBADJ    COOL2_26 -121.69 -115.91 -190.15 -202.30 -208.30 -207.97
SO XBADJ    COOL2_26 -205.91 -198.10 -184.26 -164.83 -140.39 -111.69
SO XBADJ    COOL2_26  -79.59  -45.08   -9.19   -6.50   -7.34   -7.96
SO XBADJ    COOL2_26   -8.34   -8.46   -8.33   -7.95   -7.32   -6.47
SO YBADJ    COOL2_26   24.69   41.32   56.70   70.36   81.88   90.91
SO YBADJ    COOL2_26   97.17  100.49    9.45   -5.82  -20.91    4.74
SO YBADJ    COOL2_26  -13.19  -30.71   44.05   27.59   10.30   -7.31
SO YBADJ    COOL2_26  -24.69  -41.32  -56.70  -70.36  -81.88  -90.91
SO YBADJ    COOL2_26  -97.17 -100.49 -100.75  -97.95  -92.18  -83.60
SO YBADJ    COOL2_26  -72.48  -59.16  -44.05  -27.59  -10.30    7.31

SO BUILDHGT COOL3_23   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_23   31.39   14.94   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_23   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL3_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_23   14.94   14.94   14.94   14.94   14.94   14.94
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SO BUILDHGT COOL3_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_23   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL3_23   24.57  215.62   10.80   16.56  211.84  201.33
SO BUILDWID COOL3_23   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL3_23   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_23  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_23  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_23  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL3_23   43.16   69.55   42.54   43.42   97.33  129.33
SO BUILDLEN COOL3_23   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL3_23  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_23  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_23  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_23  -61.10  -62.26  -61.54  -58.94 -111.38 -116.10
SO XBADJ    COOL3_23 -117.29  -32.23 -108.18 -108.48  -70.92  -94.17
SO XBADJ    COOL3_23 -149.76 -149.66 -145.01 -152.87 -156.75 -155.86
SO XBADJ    COOL3_23 -154.81 -149.58 -139.79 -125.76 -107.91  -86.78
SO XBADJ    COOL3_23  -63.01  -37.33  -10.51  -16.85  -26.40  -35.16
SO XBADJ    COOL3_23  -42.85  -49.24  -54.13  -57.37  -58.87  -58.59
SO YBADJ    COOL3_23   14.34   22.26   29.50   35.85   26.83   10.43
SO YBADJ    COOL3_23   -6.29   48.94    6.76   -8.43   43.66   39.13
SO YBADJ    COOL3_23   21.92   -1.01  -23.91   11.01    2.55   -5.99
SO YBADJ    COOL3_23  -14.34  -22.26  -29.50  -35.85  -41.11  -45.11
SO YBADJ    COOL3_23  -47.75  -48.94  -48.64  -46.86  -43.66  -39.13
SO YBADJ    COOL3_23  -33.41  -26.68  -19.13  -11.01   -2.55    5.99

SO BUILDHGT COOL3_24   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_24   31.39   31.39   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_24   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL3_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_24   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL3_24   24.57   17.96  214.45   16.56   23.30   29.34
SO BUILDWID COOL3_24   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL3_24   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_24  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_24  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_24  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL3_24   43.16   43.51   32.99   43.42   43.33   41.93
SO BUILDLEN COOL3_24   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL3_24  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_24  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_24  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_24  -46.92  -48.90  -49.40  -48.40  -45.93 -109.65
SO XBADJ    COOL3_24 -113.22 -113.35  -23.45 -111.96 -111.55 -107.74
SO XBADJ    COOL3_24 -159.87 -161.44 -158.11 -166.90 -171.27 -170.43
SO XBADJ    COOL3_24 -168.99 -162.94 -151.92 -136.30 -116.53  -93.22
SO XBADJ    COOL3_24  -67.08  -38.90   -9.54  -13.36  -20.51  -27.04
SO XBADJ    COOL3_24  -32.74  -37.45  -41.02  -43.35  -44.36  -44.02
SO YBADJ    COOL3_24   17.83   28.16   37.63   45.96   52.89   23.53
SO YBADJ    COOL3_24    7.74   -8.30   63.21    5.75  -10.01  -25.47
SO YBADJ    COOL3_24   32.46    7.62  -17.46   15.08    4.12   -6.96
SO YBADJ    COOL3_24  -17.83  -28.16  -37.63  -45.96  -52.89  -58.22
SO YBADJ    COOL3_24  -61.77  -63.45  -63.21  -61.04  -57.02  -51.26
SO YBADJ    COOL3_24  -43.95  -35.30  -25.58  -15.08   -4.12    6.96

SO BUILDHGT COOL3_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_25   31.39   31.39   31.39   14.94   31.39   31.39
SO BUILDHGT COOL3_25   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_25   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_25   24.57   17.96   10.80  215.91   23.30   29.34
SO BUILDWID COOL3_25   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL3_25   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_25  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_25  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_25  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_25   43.16   43.51   42.54   62.37   43.33   41.93
SO BUILDLEN COOL3_25   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL3_25  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_25  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_25  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_25  -30.59  -33.24  -34.88  -35.46  -34.96  -33.40
SO XBADJ    COOL3_25 -107.13 -110.01 -109.55  -51.40 -116.73 -115.57
SO XBADJ    COOL3_25 -110.89 -173.77 -172.15 -165.31 -187.42 -186.92
SO XBADJ    COOL3_25 -185.32 -178.59 -166.45 -149.24 -127.50 -101.88
SO XBADJ    COOL3_25  -73.17  -42.24  -10.02  -10.97  -15.32  -19.21
SO XBADJ    COOL3_25  -22.51  -25.13  -26.98  -28.02  -28.20  -27.53
SO YBADJ    COOL3_25   20.22   33.34   45.46   56.19   65.21   72.26
SO YBADJ    COOL3_25   23.07    7.86   -7.58   77.36    5.65  -10.95
SO YBADJ    COOL3_25  -27.21   18.58   -8.80  -35.92    7.46   -6.48
SO YBADJ    COOL3_25  -20.22  -33.34  -45.46  -56.19  -65.21  -72.26
SO YBADJ    COOL3_25  -77.11  -79.61  -79.70  -77.36  -72.68  -65.78
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SO YBADJ     COOL3_25  -56.89  -46.27  -34.24  -21.17   -7.46    6.48


SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_26   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_26   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_26   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_26  210.24  215.62   10.80   16.56   23.30   29.34
SO BUILDWID COOL3_26   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_26   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_26  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_26  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_26  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_26  104.00   69.55   42.54   43.42   43.33   41.93
SO BUILDLEN COOL3_26   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_26  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_26  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_26  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_26  -12.64  -15.86  -18.59  -20.76  -22.29  -23.15
SO XBADJ    COOL3_26  -23.31  -22.76 -108.09 -109.02 -121.51 -123.29
SO XBADJ    COOL3_26 -121.33 -115.68 -186.33 -198.61 -204.87 -204.89
SO XBADJ    COOL3_26 -203.27 -195.98 -182.74 -163.94 -140.17 -112.13
SO XBADJ    COOL3_26  -80.69  -46.79  -11.48   -9.29  -10.55  -11.49
SO XBADJ    COOL3_26  -12.08  -12.30  -12.15  -11.63  -10.76   -9.56
SO YBADJ    COOL3_26   21.90   38.12   53.18   66.62   78.04   87.09
SO YBADJ    COOL3_26   93.49   97.05   10.39   -4.85   23.03    5.35
SO YBADJ    COOL3_26  -12.50  -29.97   44.49   28.69   12.02   -5.02
SO YBADJ    COOL3_26  -21.90  -38.12  -53.18  -66.62  -78.04  -87.09
SO YBADJ    COOL3_26  -93.49  -97.05  -97.67  -95.31  -90.06  -82.07
SO YBADJ    COOL3_26  -71.59  -58.94  -44.49  -28.69  -12.02    5.02


SO BUILDHGT FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3    0.00    0.00    0.00    0.00    0.00   26.82
SO BUILDHGT FULHEAT3   26.82   26.82   31.39   31.39   31.39   31.39
SO BUILDHGT FULHEAT3   31.39    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3    0.00    0.00    0.00    0.00    0.00   25.00
SO BUILDWID FULHEAT3   26.64   27.47   41.50   43.16   43.51   42.54
SO BUILDWID FULHEAT3   43.42    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3    0.00    0.00    0.00    0.00    0.00   27.46
SO BUILDLEN FULHEAT3   27.47   26.64   30.44   24.57   17.96   10.80
SO BUILDLEN FULHEAT3   16.56    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00 -146.49
SO XBADJ    FULHEAT3 -147.95 -144.92 -102.79 -104.28 -102.60 -143.85
SO XBADJ    FULHEAT3  -96.66    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00   20.00
SO YBADJ    FULHEAT3   -3.36  -26.61   33.12   17.41    1.18  -14.66
SO YBADJ    FULHEAT3  -30.92    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00


SO BUILDHGT FULHEAT2    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT2    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT2   26.82   26.82    0.00   31.39   31.39   31.39
SO BUILDHGT FULHEAT2   31.39    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT2    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT2    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT2    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT2    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT2   26.64   27.47    0.00   43.16   43.51   42.54
SO BUILDWID FULHEAT2   43.42    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT2    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT2    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT2    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT2    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT2   27.47   26.64    0.00   24.57   17.96   10.80
SO BUILDLEN FULHEAT2   16.56    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT2    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT2    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT2    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT2    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT2 -138.04 -137.67    0.00 -107.73 -152.83 -150.05
```

SO	XBADJ	FULHEAT2	-149.33	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	FULHEAT2	11.17	-10.58	0.00	26.14	17.16	-8.08
SO	YBADJ	FULHEAT2	-33.07	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00

SO	BUILDHGT	FULHEAT1	31.39	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	FULHEAT1	0.00	0.00	0.00	0.00	31.39	31.39
SO	BUILDWID	FULHEAT1	43.42	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	FULHEAT1	0.00	0.00	0.00	0.00	43.51	42.54
SO	BUILDLEN	FULHEAT1	16.56	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	FULHEAT1	0.00	0.00	0.00	0.00	17.96	10.80
SO	XBADJ	FULHEAT1	-151.52	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	FULHEAT1	0.00	0.00	0.00	0.00	-150.02	-149.73
SO	YBADJ	FULHEAT1	-18.84	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	FULHEAT1	0.00	0.00	0.00	0.00	31.29	6.32

```
S:\Projects\FPL\West County Unit3 Aug07\LAKES\wc3.isc

                              BPIP (Dated: 04274)
DATE :  9/14/2007
TIME :  9:26:15
S:\Projects\FPL\West County Unit3 Aug07\LAKES\wc3.isc

============================
BPIP PROCESSING INFORMATION:
============================

  The P  flag has been set for preparing downwash related data
         for a model run utilizing the PRIME algorithm.

  Inputs entered in METERS     will be converted to meters using
   a conversion factor of    1.0000.  Output will be in meters.

  The UTMP variable is set to UTMY.  The input is assumed to be in
    UTM coordinates.  BPIP will move the UTM origin to the first pair of
    UTM coordinates read.  The UTM coordinates of the new origin will
    be subtracted from all the other UTM coordinates entered to form
    this new local coordinate system.

  The new local coordinates will be displayed in parentheses just below
    the UTM coordinates they represent.

  Plant north is set to   0.00 degrees with respect to True North.



==============
INPUT SUMMARY:
==============


Number of buildings to be processed :  21


COOLTOW1 has 1 tier(s) with a base elevation of     4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF       CORNER   COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X            Y

COOLTOW1    1        1     14.94     4
                                               562256.53  2953610.73 meters
                                           (        0.00        0.00) meters
                                               562285.79  2953610.23 meters
                                           (       29.26       -0.51) meters
                                               562282.05  2953396.29 meters
                                           (       25.52     -214.45) meters
                                               562252.80  2953396.80 meters
                                           (       -3.73     -213.94) meters


COOLTOW2 has 1 tier(s) with a base elevation of     4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF       CORNER   COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X            Y

COOLTOW2    1        2     14.94     4
                                               562247.62  2953208.85 meters
                                           (       -8.91     -401.88) meters
                                               562276.88  2953208.34 meters
                                           (       20.35     -402.39) meters
                                               562273.15  2952994.41 meters
                                           (       16.61     -616.33) meters
                                               562243.89  2952994.92 meters
                                           (      -12.64     -615.82) meters


COOLTOW3 has 1 tier(s) with a base elevation of     4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF       CORNER   COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X            Y

COOLTOW3    1        3     14.94     4
                                               562242.61  2952803.49 meters
                                           (      -13.92     -807.24) meters
                                               562271.87  2952802.98 meters
                                           (       15.34     -807.76) meters
                                               562268.14  2952589.04 meters
                                           (       11.60    -1021.69) meters
                                               562238.88  2952589.55 meters
                                           (      -17.65    -1021.18) meters


HRSG1A   has 1 tier(s) with a base elevation of     4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF       CORNER   COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X            Y
```

```
HRSG1A       1         4      31.39      4
                                              562168.10  2953551.01 meters
                                         (       -88.43      -59.72) meters
                                              562168.28  2953561.07 meters
                                         (       -88.25      -49.67) meters
                                              562210.64  2953560.33 meters
                                         (       -45.89      -50.41) meters
                                              562210.46  2953550.27 meters
                                         (       -46.07      -60.46) meters


HRSG1B   has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF      CORNER   COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X           Y

HRSG1B       1         5      31.39      4
                                              562166.34  2953456.99 meters
                                         (       -90.18     -153.74) meters
                                              562166.52  2953467.05 meters
                                         (       -90.01     -143.69) meters
                                              562208.88  2953466.31 meters
                                         (       -47.65     -144.43) meters
                                              562208.71  2953456.25 meters
                                         (       -47.82     -154.48) meters


HRSG1C   has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF      CORNER   COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X           Y

HRSG1C       1         6      31.39      4
                                              562166.34  2953410.97 meters
                                         (       -90.18     -199.76) meters
                                              562166.52  2953421.03 meters
                                         (       -90.01     -189.71) meters
                                              562208.88  2953420.29 meters
                                         (       -47.65     -190.45) meters
                                              562208.71  2953410.23 meters
                                         (       -47.82     -200.50) meters


HRSG2A   has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF      CORNER   COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X           Y

HRSG2A       1         7      31.39      4
                                              562161.96  2953145.17 meters
                                         (       -94.57     -465.56) meters
                                              562162.13  2953155.23 meters
                                         (       -94.40     -455.51) meters
                                              562204.49  2953154.49 meters
                                         (       -52.04     -456.24) meters
                                              562204.32  2953144.43 meters
                                         (       -52.21     -466.30) meters


HRSG2B   has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF      CORNER   COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X           Y

HRSG2B       1         8      31.39      4
                                              562159.76  2953051.72 meters
                                         (       -96.77     -559.01) meters
                                              562159.94  2953061.78 meters
                                         (       -96.59     -548.96) meters
                                              562202.30  2953061.04 meters
                                         (       -54.23     -549.69) meters
                                              562202.12  2953050.98 meters
                                         (       -54.41     -559.75) meters


HRSG2C   has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF      CORNER   COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X           Y

HRSG2C       1         9      31.39      4
                                              562159.32  2953005.67 meters
                                         (       -97.21     -605.06) meters
                                              562159.50  2953015.73 meters
                                         (       -97.03     -595.01) meters
                                              562201.86  2953014.99 meters
                                         (       -54.67     -595.74) meters
                                              562201.68  2953004.93 meters
                                         (       -54.85     -605.80) meters


HRSG3A   has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF      CORNER   COORDINATES
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```
  NAME    NUMBER    NUMBER  HEIGHT  CORNERS        X            Y

HRSG3A      1         10     31.39     4
                                                562154.49  2952743.42 meters
                                           (      -102.04      -867.32) meters
                                                562154.67  2952753.47 meters
                                           (      -101.86      -857.26) meters
                                                562197.03  2952752.73 meters
                                           (       -59.50      -858.00) meters
                                                562196.86  2952742.68 meters
                                           (       -59.67      -868.06) meters


HRSG3B   has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF       CORNER    COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X            Y

HRSG3B      1         11     31.39     4
                                                562153.18  2952649.73 meters
                                           (      -103.35      -961.00) meters
                                                562153.35  2952659.79 meters
                                           (      -103.18      -950.95) meters
                                                562195.71  2952659.05 meters
                                           (       -60.81      -951.68) meters
                                                562195.54  2952648.99 meters
                                           (       -60.99      -961.74) meters


HRSG3C   has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF       CORNER    COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X            Y

HRSG3C      1         12     31.39     4
                                                562152.30  2952604.33 meters
                                           (      -104.23     -1006.41) meters
                                                562152.48  2952614.38 meters
                                           (      -104.05      -996.35) meters
                                                562194.84  2952613.64 meters
                                           (       -61.69      -997.09) meters
                                                562194.66  2952603.59 meters
                                           (       -61.87     -1007.15) meters


AIRINL1A has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF       CORNER    COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X            Y

AIRINL1A    1         13     26.82     4
                                                562090.64  2953536.60 meters
                                           (      -165.89       -74.14) meters
                                                562090.64  2953552.45 meters
                                           (      -165.89       -58.29) meters
                                                562113.19  2953552.45 meters
                                           (      -143.34       -58.29) meters
                                                562113.19  2953536.60 meters
                                           (      -143.34       -74.14) meters


AIRINL1B has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF       CORNER    COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X            Y

AIRINL1B    1         14     26.82     4
                                                562087.36  2953443.17 meters
                                           (      -169.17      -167.57) meters
                                                562087.36  2953459.02 meters
                                           (      -169.17      -151.72) meters
                                                562109.91  2953459.02 meters
                                           (      -146.62      -151.72) meters
                                                562109.91  2953443.17 meters
                                           (      -146.62      -167.57) meters


AIRINL1C has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF       CORNER    COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X            Y

AIRINL1C    1         15     26.82     4
                                                562096.37  2953397.53 meters
                                           (      -160.16      -213.20) meters
                                                562096.37  2953413.38 meters
                                           (      -160.16      -197.35) meters
                                                562118.93  2953413.38 meters
                                           (      -137.60      -197.35) meters
                                                562118.93  2953397.53 meters
                                           (      -137.60      -213.20) meters
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AIRINL2A has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF      CORNER   COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X            Y

AIRINL2A    1        16     26.82     4
                                              562081.35  2953133.07 meters
                                          (     -175.18     -477.67) meters
                                              562081.35  2953148.92 meters
                                          (     -175.18     -461.82) meters
                                              562103.90  2953148.92 meters
                                          (     -152.63     -461.82) meters
                                              562103.90  2953133.07 meters
                                          (     -152.63     -477.67) meters

AIRINL2B has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF      CORNER   COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X            Y

AIRINL2B    1        17     26.82     4
                                              562079.71  2953039.07 meters
                                          (     -176.82     -571.67) meters
                                              562079.71  2953054.92 meters
                                          (     -176.82     -555.82) meters
                                              562102.26  2953054.92 meters
                                          (     -154.27     -555.82) meters
                                              562102.26  2953039.07 meters
                                          (     -154.27     -571.67) meters

AIRINL2C has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF      CORNER   COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X            Y

AIRINL2C    1        18     26.82     4
                                              562079.44  2952993.71 meters
                                          (     -177.10     -617.03) meters
                                              562079.44  2953009.56 meters
                                          (     -177.10     -601.18) meters
                                              562101.99  2953009.56 meters
                                          (     -154.54     -601.18) meters
                                              562101.99  2952993.71 meters
                                          (     -154.54     -617.03) meters

AIRINL3A has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF      CORNER   COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X            Y

AIRINL3A    1        19     26.82     4
                                              562075.61  2952731.13 meters
                                          (     -180.92     -879.61) meters
                                              562075.61  2952746.98 meters
                                          (     -180.92     -863.76) meters
                                              562098.17  2952746.98 meters
                                          (     -158.37     -863.76) meters
                                              562098.17  2952731.13 meters
                                          (     -158.37     -879.61) meters

AIRINL3B has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF      CORNER   COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X            Y

AIRINL3B    1        20     26.82     4
                                              562072.88  2952637.13 meters
                                          (     -183.65     -973.60) meters
                                              562072.88  2952652.98 meters
                                          (     -183.65     -957.76) meters
                                              562095.43  2952652.98 meters
                                          (     -161.10     -957.76) meters
                                              562095.43  2952637.13 meters
                                          (     -161.10     -973.60) meters

AIRINL3C has 1 tier(s) with a base elevation of    4.00 METERS
BUILDING  TIER  BLDG-TIER  TIER   NO. OF      CORNER   COORDINATES
  NAME   NUMBER   NUMBER  HEIGHT  CORNERS        X            Y

AIRINL3C    1        21     26.82     4
                                              562072.60  2952591.50 meters
                                          (     -183.93    -1019.24) meters
                                              562072.60  2952607.35 meters
                                          (     -183.93    -1003.39) meters
                                              562095.16  2952607.35 meters
                                          (     -161.37    -1003.39) meters
                                              562095.16  2952591.50 meters
                                          (     -161.37    -1019.24) meters
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Number of stacks to be processed :  90

                  STACK              STACK    COORDINATES
STACK NAME     BASE  HEIGHT            X           Y

01A7595        4.00   45.42 METERS
                                  562217.40  2953555.83 meters
                              (      -39.13      -54.90) meters
01B7595        4.00   45.42 METERS
                                  562216.49  2953461.53 meters
                              (      -40.04     -149.21) meters
01C7595        4.00   45.42 METERS
                                  562215.37  2953416.64 meters
                              (      -41.16     -194.10) meters
02A7595        4.00   45.42 METERS
                                  562210.05  2953149.57 meters
                              (      -46.48     -461.17) meters
02B7595        4.00   45.42 METERS
                                  562208.63  2953056.36 meters
                              (      -47.90     -554.38) meters
02C7595        4.00   45.42 METERS
                                  562207.66  2953010.73 meters
                              (      -48.87     -600.01) meters
03A7595        4.00   45.42 METERS
                                  562202.79  2952748.59 meters
                              (      -53.74     -862.15) meters
03B7595        4.00   45.42 METERS
                                  562201.60  2952654.46 meters
                              (      -54.93     -956.28) meters
03C7595        4.00   45.42 METERS
                                  562200.64  2952609.61 meters
                              (      -55.89    -1001.12) meters
COOL1_01       4.00   19.20 METERS
                                  562263.11  2953601.65 meters
                              (        6.58       -9.09) meters
COOL1_02       4.00   19.20 METERS
                                  562264.07  2953584.68 meters
                              (        7.54      -26.06) meters
COOL1_03       4.00   19.20 METERS
                                  562263.18  2953568.78 meters
                              (        6.65      -41.96) meters
COOL1_04       4.00   19.20 METERS
                                  562262.90  2953551.74 meters
                              (        6.37      -58.99) meters
COOL1_05       4.00   19.20 METERS
                                  562261.39  2953535.85 meters
                              (        4.86      -74.89) meters
COOL1_06       4.00   19.20 METERS
                                  562261.73  2953519.62 meters
                              (        5.20      -91.11) meters
COOL1_07       4.00   19.20 METERS
                                  562262.06  2953502.92 meters
                              (        5.53     -107.82) meters
COOL1_08       4.00   19.20 METERS
                                  562261.16  2953485.70 meters
                              (        4.63     -125.04) meters
COOL1_09       4.00   19.80 METERS
                                  562261.51  2953470.08 meters
                              (        4.98     -140.65) meters
COOL1_10       4.00   19.20 METERS
                                  562261.23  2953453.56 meters
                              (        4.70     -157.18) meters
COOL1_11       4.00   19.20 METERS
                                  562260.95  2953437.67 meters
                              (        4.42     -173.07) meters
COOL1_12       4.00   19.20 METERS
                                  562260.10  2953421.08 meters
                              (        3.57     -189.65) meters
COOL1_13       4.00   19.20 METERS
                                  562261.04  2953403.58 meters
                              (        4.51     -207.15) meters
COOL1_14       4.00   19.20 METERS
                                  562279.16  2953601.94 meters
                              (       22.63       -8.80) meters
COOL1_15       4.00   19.20 METERS
                                  562278.88  2953584.99 meters
                              (       22.35      -25.75) meters
COOL1_16       4.00   19.20 METERS
                                  562278.61  2953568.63 meters
                              (       22.08      -42.10) meters
COOL1_17       4.00   19.20 METERS
                                  562278.20  2953551.91 meters
                              (       21.67      -58.83) meters
COOL1_18       4.00   19.20 METERS
                                  562278.54  2953535.26 meters
                              (       22.01      -75.47) meters
COOL1_19       4.00   19.20 METERS
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                                562277.64  2953518.30 meters
                             (      21.11      -92.43) meters
 COOL1_20        4.00     19.20 METERS
                                562277.99  2953502.67 meters
                             (      21.46     -108.07) meters
 COOL1_21        4.00     19.20 METERS
                                562276.98  2953486.12 meters
                             (      20.45     -124.61) meters
 COOL1_22        4.00     19.20 METERS
                                562276.70  2953470.20 meters
                             (      20.17     -140.54) meters
 COOL2_01        4.00     19.20 METERS
                                562253.16  2953199.64 meters
                             (      -3.37     -411.10) meters
 COOL2_02        4.00     19.20 METERS
                                562253.35  2953181.92 meters
                             (      -3.18     -428.82) meters
 COOL2_03        4.00     19.20 METERS
                                562253.53  2953166.37 meters
                             (      -3.00     -444.36) meters
 COOL2_04        4.00     19.20 METERS
                                562253.26  2953150.92 meters
                             (      -3.27     -459.82) meters
 COOL2_05        4.00     19.20 METERS
                                562253.45  2953134.92 meters
                             (      -3.08     -475.82) meters
 COOL2_06        4.00     19.20 METERS
                                562253.17  2953117.32 meters
                             (      -3.36     -493.42) meters
 COOL2_07        4.00     19.20 METERS
                                562252.89  2953101.13 meters
                             (      -3.64     -509.61) meters
 COOL2_08        4.00     19.20 METERS
                                562252.61  2953082.68 meters
                             (      -3.92     -528.05) meters
 COOL2_09        4.00     19.20 METERS
                                562252.81  2953066.48 meters
                             (      -3.72     -544.26) meters
 COOL2_10        4.00     19.20 METERS
                                562252.06  2953051.41 meters
                             (      -4.47     -559.33) meters
 COOL2_11        4.00     19.20 METERS
                                562252.72  2953034.94 meters
                             (      -3.81     -575.79) meters
 COOL2_12        4.00     19.20 METERS
                                562253.04  2953018.87 meters
                             (      -3.49     -591.86) meters
 COOL2_13        4.00     19.20 METERS
                                562252.28  2953001.09 meters
                             (      -4.25     -609.65) meters
 COOL2_14        4.00     19.20 METERS
                                562268.04  2953199.56 meters
                             (      11.51     -411.17) meters
 COOL2_15        4.00     19.20 METERS
                                562267.76  2953181.39 meters
                             (      11.23     -429.35) meters
 COOL2_16        4.00     19.20 METERS
                                562268.42  2953166.46 meters
                             (      11.89     -444.27) meters
 COOL2_17        4.00     19.20 METERS
                                562268.14  2953150.90 meters
                             (      11.61     -459.83) meters
 COOL2_18        4.00     19.20 METERS
                                562268.33  2953134.76 meters
                             (      11.80     -475.98) meters
 COOL2_19        4.00     19.20 METERS
                                562268.05  2953117.03 meters
                             (      11.52     -493.70) meters
 COOL2_20        4.00     19.20 METERS
                                562267.77  2953101.30 meters
                             (      11.24     -509.43) meters
 COOL2_21        4.00     19.20 METERS
                                562267.50  2953082.91 meters
                             (      10.97     -527.83) meters
 COOL2_22        4.00     19.20 METERS
                                562267.69  2953066.89 meters
                             (      11.16     -543.84) meters
 COOL3_01        4.00     19.20 METERS
                                562250.10  2952798.64 meters
                             (      -6.43     -812.09) meters
 COOL3_02        4.00     19.20 METERS
                                562250.29  2952780.09 meters
                             (      -6.24     -830.65) meters
 COOL3_03        4.00     19.20 METERS
                                562249.93  2952764.77 meters
                             (      -6.60     -845.97) meters
 COOL3_04        4.00     19.20 METERS
                                562249.65  2952746.51 meters
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                                  (        -6.88     -864.22) meters
COOL3_05          4.00     19.20 METERS
                                       562248.89  2952730.59 meters
                                  (        -7.64     -880.15) meters
COOL3_06          4.00     19.20 METERS
                                       562249.10  2952713.49 meters
                                  (        -7.43     -897.24) meters
COOL3_07          4.00     19.20 METERS
                                       562248.33  2952698.83 meters
                                  (        -8.20     -911.91) meters
COOL3_08          4.00     19.20 METERS
                                       562247.56  2952681.35 meters
                                  (        -8.97     -929.39) meters
COOL3_09          4.00     19.20 METERS
                                       562247.78  2952665.22 meters
                                  (        -8.75     -945.52) meters
COOL3_10          4.00     19.20 METERS
                                       562247.50  2952649.29 meters
                                  (        -9.03     -961.45) meters
COOL3_11          4.00     19.20 METERS
                                       562247.22  2952633.36 meters
                                  (        -9.31     -977.38) meters
COOL3_12          4.00     19.20 METERS
                                       562245.83  2952616.60 meters
                                  (       -10.70     -994.14) meters
COOL3_13          4.00     19.20 METERS
                                       562245.53  2952598.97 meters
                                  (       -11.00    -1011.77) meters
COOL3_14          4.00     19.20 METERS
                                       562266.00  2952798.62 meters
                                  (         9.47     -812.11) meters
COOL3_15          4.00     19.20 METERS
                                       562265.72  2952780.45 meters
                                  (         9.19     -830.28) meters
COOL3_16          4.00     19.20 METERS
                                       562264.97  2952764.67 meters
                                  (         8.44     -846.07) meters
COOL3_17          4.00     19.20 METERS
                                       562264.20  2952746.77 meters
                                  (         7.67     -863.97) meters
COOL3_18          4.00     19.20 METERS
                                       562263.44  2952730.71 meters
                                  (         6.91     -880.03) meters
COOL3_19          4.00     19.20 METERS
                                       562262.67  2952713.49 meters
                                  (         6.14     -897.24) meters
COOL3_20          4.00     19.20 METERS
                                       562262.89  2952697.35 meters
                                  (         6.36     -913.39) meters
COOL3_21          4.00     19.20 METERS
                                       562262.61  2952681.39 meters
                                  (         6.08     -929.34) meters
COOL3_22          4.00     19.20 METERS
                                       562262.33  2952665.43 meters
                                  (         5.80     -945.30) meters
COOL1_23          4.00     19.20 METERS
                                       562276.52  2953452.50 meters
                                  (        19.99     -158.24) meters
COOL1_24          4.00     19.20 METERS
                                       562275.96  2953437.76 meters
                                  (        19.43     -172.98) meters
COOL1_25          4.00     19.20 METERS
                                       562275.60  2953421.00 meters
                                  (        19.07     -189.74) meters
COOL1_26          4.00     19.20 METERS
                                       562275.05  2953403.86 meters
                                  (        18.52     -206.88) meters
COOL2_23          4.00     19.20 METERS
                                       562267.69  2953050.88 meters
                                  (        11.16     -559.85) meters
COOL2_24          4.00     19.20 METERS
                                       562267.69  2953033.88 meters
                                  (        11.16     -576.85) meters
COOL2_25          4.00     19.20 METERS
                                       562267.69  2953016.88 meters
                                  (        11.16     -593.85) meters
COOL2_26          4.00     19.20 METERS
                                       562267.69  2953000.88 meters
                                  (        11.16     -609.85) meters
COOL3_23          4.00     19.20 METERS
                                       562261.36  2952647.63 meters
                                  (         4.83     -963.10) meters
COOL3_24          4.00     19.20 METERS
                                       562262.33  2952633.06 meters
                                  (         5.80     -977.67) meters
COOL3_25          4.00     19.20 METERS
                                       562261.85  2952616.57 meters
                                  (         5.32     -994.16) meters
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COOL3_26         4.00    19.20 METERS
                                   562260.39   2952598.60 meters
                              (         3.86     -1012.14) meters
FULHEAT3         0.00     9.14 METERS
                                   562195.69   2952917.93 meters
                              (       -60.84      -692.80) meters
FULHEAT2         0.00     9.14 METERS
                                   562195.69   2953317.00 meters
                              (       -60.84      -293.73) meters
FULHEAT1         0.00     9.14 METERS
                                   562195.69   2953700.00 meters
                              (       -60.84        89.26) meters
```

The following lists the stacks that have been identified
as being atop the noted building-tiers.

STACK NAME	NO.	BUILDING NAME	NO.	TIER NO.
COOL1_01	10	COOLTOW1	1	1
COOL1_02	11	COOLTOW1	1	1
COOL1_03	12	COOLTOW1	1	1
COOL1_04	13	COOLTOW1	1	1
COOL1_05	14	COOLTOW1	1	1
COOL1_06	15	COOLTOW1	1	1
COOL1_07	16	COOLTOW1	1	1
COOL1_08	17	COOLTOW1	1	1
COOL1_09	18	COOLTOW1	1	1
COOL1_10	19	COOLTOW1	1	1
COOL1_11	20	COOLTOW1	1	1
COOL1_12	21	COOLTOW1	1	1
COOL1_13	22	COOLTOW1	1	1
COOL1_14	23	COOLTOW1	1	1
COOL1_15	24	COOLTOW1	1	1
COOL1_16	25	COOLTOW1	1	1
COOL1_17	26	COOLTOW1	1	1
COOL1_18	27	COOLTOW1	1	1
COOL1_19	28	COOLTOW1	1	1
COOL1_20	29	COOLTOW1	1	1
COOL1_21	30	COOLTOW1	1	1
COOL1_22	31	COOLTOW1	1	1
COOL2_01	32	COOLTOW2	2	1
COOL2_02	33	COOLTOW2	2	1
COOL2_03	34	COOLTOW2	2	1
COOL2_04	35	COOLTOW2	2	1
COOL2_05	36	COOLTOW2	2	1
COOL2_06	37	COOLTOW2	2	1
COOL2_07	38	COOLTOW2	2	1
COOL2_08	39	COOLTOW2	2	1
COOL2_09	40	COOLTOW2	2	1
COOL2_10	41	COOLTOW2	2	1
COOL2_11	42	COOLTOW2	2	1
COOL2_12	43	COOLTOW2	2	1
COOL2_13	44	COOLTOW2	2	1
COOL2_14	45	COOLTOW2	2	1
COOL2_15	46	COOLTOW2	2	1
COOL2_16	47	COOLTOW2	2	1
COOL2_17	48	COOLTOW2	2	1
COOL2_18	49	COOLTOW2	2	1
COOL2_19	50	COOLTOW2	2	1
COOL2_20	51	COOLTOW2	2	1
COOL2_21	52	COOLTOW2	2	1
COOL2_22	53	COOLTOW2	2	1
COOL3_01	54	COOLTOW3	3	1
COOL3_02	55	COOLTOW3	3	1
COOL3_03	56	COOLTOW3	3	1
COOL3_04	57	COOLTOW3	3	1
COOL3_05	58	COOLTOW3	3	1
COOL3_06	59	COOLTOW3	3	1
COOL3_07	60	COOLTOW3	3	1
COOL3_08	61	COOLTOW3	3	1
COOL3_09	62	COOLTOW3	3	1
COOL3_10	63	COOLTOW3	3	1
COOL3_11	64	COOLTOW3	3	1
COOL3_12	65	COOLTOW3	3	1
COOL3_13	66	COOLTOW3	3	1
COOL3_14	67	COOLTOW3	3	1
COOL3_15	68	COOLTOW3	3	1
COOL3_16	69	COOLTOW3	3	1
COOL3_17	70	COOLTOW3	3	1
COOL3_18	71	COOLTOW3	3	1
COOL3_19	72	COOLTOW3	3	1
COOL3_20	73	COOLTOW3	3	1
COOL3_21	74	COOLTOW3	3	1
COOL3_22	75	COOLTOW3	3	1
COOL1_23	76	COOLTOW1	1	1
COOL1_24	77	COOLTOW1	1	1
COOL1_25	78	COOLTOW1	1	1

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        COOL1_26  79     COOLTOW1     1      1
        COOL2_23  80     COOLTOW2     2      1
        COOL2_24  81     COOLTOW2     2      1
        COOL2_25  82     COOLTOW2     2      1
        COOL2_26  83     COOLTOW2     2      1
        COOL3_23  84     COOLTOW3     3      1
        COOL3_24  85     COOLTOW3     3      1
        COOL3_25  86     COOLTOW3     3      1
        COOL3_26  87     COOLTOW3     3      1


                    Overall GEP Summary Table
                         (Units: meters)


StkNo:  1  Stk Name:01A7595  Stk Ht:  45.42 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:    31.51              *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   4


StkNo:  2  Stk Name:01B7595  Stk Ht:  45.42 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:    31.51              *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   5


StkNo:  3  Stk Name:01C7595  Stk Ht:  45.42 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:    31.51              *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   6


StkNo:  4  Stk Name:02A7595  Stk Ht:  45.42 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:    31.51              *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   7


StkNo:  5  Stk Name:02B7595  Stk Ht:  45.42 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:    31.51              *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   8


StkNo:  6  Stk Name:02C7595  Stk Ht:  45.42 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:    31.51              *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   9


StkNo:  7  Stk Name:03A7595  Stk Ht:  45.42 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:    31.51              *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:  10


StkNo:  8  Stk Name:03B7595  Stk Ht:  45.42 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:    31.51              *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:  11


StkNo:  9  Stk Name:03C7595  Stk Ht:  45.42 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:    31.51              *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:  12


StkNo: 10  Stk Name:COOL1_01 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:    31.51              *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   4


StkNo: 11  Stk Name:COOL1_02 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:    31.51              *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
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 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   4


StkNo: 12  Stk Name:COOL1_03 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   38.03                *Eqn1 Ht:   78.49
        *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   43.50
  Bldg-Tier nos. contributing to GEP:   5


StkNo: 13  Stk Name:COOL1_04 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   36.04                *Eqn1 Ht:   78.49
        *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   48.50
  Bldg-Tier nos. contributing to GEP:   5


StkNo: 14  Stk Name:COOL1_05 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   33.53                *Eqn1 Ht:   78.49
        *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   54.00
  Bldg-Tier nos. contributing to GEP:   5


StkNo: 15  Stk Name:COOL1_06 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51                *Eqn1 Ht:   78.49
        *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   5


StkNo: 16  Stk Name:COOL1_07 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51                *Eqn1 Ht:   78.49
        *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   5


StkNo: 17  Stk Name:COOL1_08 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   32.16                *Eqn1 Ht:   78.49
        *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  125.25
  Bldg-Tier nos. contributing to GEP:   4


StkNo: 18  Stk Name:COOL1_09 Stk Ht:  19.80 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51                *Eqn1 Ht:   78.49
        *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   6


StkNo: 19  Stk Name:COOL1_10 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51                *Eqn1 Ht:   78.49
        *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   6


StkNo: 20  Stk Name:COOL1_11 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   38.84                *Eqn1 Ht:   78.49
        *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  140.75
  Bldg-Tier nos. contributing to GEP:   4


StkNo: 21  Stk Name:COOL1_12 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51                *Eqn1 Ht:   78.49
        *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:   5


StkNo: 22  Stk Name:COOL1_13 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51                *Eqn1 Ht:   78.49
        *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:   5


StkNo: 23  Stk Name:COOL1_14 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51                *Eqn1 Ht:   78.49
        *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   4
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StkNo: 24  Stk Name:COOL1_15 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   38.92              *Eqn1 Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   41.00
  Bldg-Tier nos. contributing to GEP:   5

StkNo: 25  Stk Name:COOL1_16 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   36.36              *Eqn1 Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   47.75
  Bldg-Tier nos. contributing to GEP:   5

StkNo: 26  Stk Name:COOL1_17 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   34.13              *Eqn1 Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   52.75
  Bldg-Tier nos. contributing to GEP:   5

StkNo: 27  Stk Name:COOL1_18 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   31.51              *Eqn1 Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   5

StkNo: 28  Stk Name:COOL1_19 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   31.51              *Eqn1 Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   5

StkNo: 29  Stk Name:COOL1_20 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   31.51              *Eqn1 Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   5

StkNo: 30  Stk Name:COOL1_21 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   31.51              *Eqn1 Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   6

StkNo: 31  Stk Name:COOL1_22 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   31.51              *Eqn1 Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   6

StkNo: 32  Stk Name:COOL2_01 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   31.51              *Eqn1 Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   7

StkNo: 33  Stk Name:COOL2_02 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   31.51              *Eqn1 Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   7

StkNo: 34  Stk Name:COOL2_03 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   38.66              *Eqn1 Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   41.75
  Bldg-Tier nos. contributing to GEP:   8

StkNo: 35  Stk Name:COOL2_04 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   36.97              *Eqn1 Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   46.25
  Bldg-Tier nos. contributing to GEP:   8

StkNo: 36  Stk Name:COOL2_05 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   34.59              *Eqn1 Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   51.75
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 Bldg-Tier nos. contributing to GEP:   8


StkNo: 37  Stk Name:COOL2_06 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
         GEP:  BH:  31.39  PBW:   31.51               *Eqnl Ht:   78.49
       *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   8


StkNo: 38  Stk Name:COOL2_07 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
         GEP:  BH:  31.39  PBW:   31.51               *Eqnl Ht:   78.49
       *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   8


StkNo: 39  Stk Name:COOL2_08 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
         GEP:  BH:  31.39  PBW:   31.51               *Eqnl Ht:   78.49
       *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   8


StkNo: 40  Stk Name:COOL2_09 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
         GEP:  BH:  31.39  PBW:   31.51               *Eqnl Ht:   78.49
       *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   9


StkNo: 41  Stk Name:COOL2_10 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
         GEP:  BH:  31.39  PBW:   31.51               *Eqnl Ht:   78.49
       *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   9


StkNo: 42  Stk Name:COOL2_11 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
         GEP:  BH:  31.39  PBW:   38.84               *Eqnl Ht:   78.49
       *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  140.75
  Bldg-Tier nos. contributing to GEP:   7


StkNo: 43  Stk Name:COOL2_12 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
         GEP:  BH:  31.39  PBW:   31.51               *Eqnl Ht:   78.49
       *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:   8


StkNo: 44  Stk Name:COOL2_13 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
         GEP:  BH:  31.39  PBW:   31.51               *Eqnl Ht:   78.49
       *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:   8


StkNo: 45  Stk Name:COOL2_14 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
         GEP:  BH:  31.39  PBW:   31.51               *Eqnl Ht:   78.49
       *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   7


StkNo: 46  Stk Name:COOL2_15 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
         GEP:  BH:  31.39  PBW:   39.17               *Eqnl Ht:   78.49
       *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   40.25
  Bldg-Tier nos. contributing to GEP:   8


StkNo: 47  Stk Name:COOL2_16 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
         GEP:  BH:  31.39  PBW:   37.07               *Eqnl Ht:   78.49
       *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   46.00
  Bldg-Tier nos. contributing to GEP:   8


StkNo: 48  Stk Name:COOL2_17 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
         GEP:  BH:  31.39  PBW:   35.16               *Eqnl Ht:   78.49
       *adjusted for a Stack-Building elevation difference of     0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   50.50
  Bldg-Tier nos. contributing to GEP:   8


StkNo: 49  Stk Name:COOL2_18 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
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          GEP:  BH:  31.39  PBW:   32.54              *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   56.00
  Bldg-Tier nos. contributing to GEP:   8


StkNo: 50  Stk Name:COOL2_19 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51              *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   8


StkNo: 51  Stk Name:COOL2_20 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51              *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   8


StkNo: 52  Stk Name:COOL2_21 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51              *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   9


StkNo: 53  Stk Name:COOL2_22 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51              *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   9


StkNo: 54  Stk Name:COOL3_01 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51              *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:  10


StkNo: 55  Stk Name:COOL3_02 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51              *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:  10


StkNo: 56  Stk Name:COOL3_03 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   38.40              *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   42.50
  Bldg-Tier nos. contributing to GEP:  11


StkNo: 57  Stk Name:COOL3_04 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   36.36              *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   47.75
  Bldg-Tier nos. contributing to GEP:  11


StkNo: 58  Stk Name:COOL3_05 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   33.89              *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   53.25
  Bldg-Tier nos. contributing to GEP:  11


StkNo: 59  Stk Name:COOL3_06 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51              *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:  10


StkNo: 60  Stk Name:COOL3_07 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51              *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:  10


StkNo: 61  Stk Name:COOL3_08 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51              *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:  10
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StkNo: 62  Stk Name:COOL3_09 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:    31.51               *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:  12

StkNo: 63  Stk Name:COOL3_10 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:    31.51               *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:  12

StkNo: 64  Stk Name:COOL3_11 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:    38.57               *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  140.00
  Bldg-Tier nos. contributing to GEP:  10

StkNo: 65  Stk Name:COOL3_12 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:    31.51               *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:  11

StkNo: 66  Stk Name:COOL3_13 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:    31.51               *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:  11

StkNo: 67  Stk Name:COOL3_14 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:    31.51               *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:  10

StkNo: 68  Stk Name:COOL3_15 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:    39.42               *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   39.50
  Bldg-Tier nos. contributing to GEP:  11

StkNo: 69  Stk Name:COOL3_16 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:    36.77               *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   46.75
  Bldg-Tier nos. contributing to GEP:  11

StkNo: 70  Stk Name:COOL3_17 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:    34.59               *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   51.75
  Bldg-Tier nos. contributing to GEP:  11

StkNo: 71  Stk Name:COOL3_18 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:    32.03               *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   57.00
  Bldg-Tier nos. contributing to GEP:  11

StkNo: 72  Stk Name:COOL3_19 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:    31.51               *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:  11

StkNo: 73  Stk Name:COOL3_20 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:    31.51               *Eqnl Ht:   78.49
         *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:  10

StkNo: 74  Stk Name:COOL3_21 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:    31.51               *Eqnl Ht:   78.49
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        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:  10


StkNo: 75  Stk Name:COOL3_22 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   31.51             *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:  12


StkNo: 76  Stk Name:COOL1_23 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   35.61             *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  132.50
  Bldg-Tier nos. contributing to GEP:   4


StkNo: 77  Stk Name:COOL1_24 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   37.27             *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  136.50
  Bldg-Tier nos. contributing to GEP:   4


StkNo: 78  Stk Name:COOL1_25 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   31.51             *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:   5


StkNo: 79  Stk Name:COOL1_26 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   31.51             *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:   5


StkNo: 80  Stk Name:COOL2_23 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   31.51             *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:   9


StkNo: 81  Stk Name:COOL2_24 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   37.27             *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  136.50
  Bldg-Tier nos. contributing to GEP:   7


StkNo: 82  Stk Name:COOL2_25 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   31.51             *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:   8


StkNo: 83  Stk Name:COOL2_26 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   31.51             *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:   8


StkNo: 84  Stk Name:COOL3_23 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   31.51             *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:   58.00
  Bldg-Tier nos. contributing to GEP:  12


StkNo: 85  Stk Name:COOL3_24 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   36.97             *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  135.75
  Bldg-Tier nos. contributing to GEP:  10


StkNo: 86  Stk Name:COOL3_25 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
           GEP:  BH:  31.39  PBW:   39.89             *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  144.00
  Bldg-Tier nos. contributing to GEP:  10
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StkNo: 87  Stk Name:COOL3_26 Stk Ht:  19.20 Prelim. GEP Stk.Ht:   78.49
          GEP:  BH:  31.39  PBW:   31.51                *Eqnl Ht:   78.49
        *adjusted for a Stack-Building elevation difference of    0.00
 No. of Tiers affecting Stk:  1  Direction occurred:  124.00
  Bldg-Tier nos. contributing to GEP:  11

StkNo: 88  Stk Name:FULHEAT3 Stk Ht:   9.14 Prelim. GEP Stk.Ht:   82.49
          GEP:  BH:  31.39  PBW:   42.37                *Eqnl Ht:   82.49
        *adjusted for a Stack-Building elevation difference of   -4.00
 No. of Tiers affecting Stk:  1  Direction occurred:  181.00
  Bldg-Tier nos. contributing to GEP:   8

StkNo: 89  Stk Name:FULHEAT2 Stk Ht:   9.14 Prelim. GEP Stk.Ht:   82.49
          GEP:  BH:  31.39  PBW:   42.37                *Eqnl Ht:   82.49
        *adjusted for a Stack-Building elevation difference of   -4.00
 No. of Tiers affecting Stk:  1  Direction occurred:  181.00
  Bldg-Tier nos. contributing to GEP:   5

StkNo: 90  Stk Name:FULHEAT1 Stk Ht:   9.14 Prelim. GEP Stk.Ht:   82.49
          GEP:  BH:  31.39  PBW:   42.37                *Eqnl Ht:   82.49
        *adjusted for a Stack-Building elevation difference of   -4.00
 No. of Tiers affecting Stk:  1  Direction occurred:    1.00
  Bldg-Tier nos. contributing to GEP:   4
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APPENDIX F

MODEL SUMMARY AND INPUT FILES

TABLE F-1
MAXIMUM POLLUTANT CONCENTRATIONS PREDICTED FOR ONE COMBUSTION TURBINE IN COMBINED CYCLE OPERATION

POLLUTANT	MAXIMUM EMISSION RATES (LB/HR)						Averaging Time	MAXIMUM PREDICTED CONCENTRATIONS (UG/M^3)					
	BASELOAD [b]			75% LOAD				BASELOAD			75% LOAD		
	35°F	59°F	95°F	35°F	59°F	95°F		35°F	59°F	95°F	35°F	59°F	95°F
Natural Gas													
Generic (10 g/s)	79.37	79.37	79.37	79.37	79.37	79.37	Annual	0.850	0.898	0.975	1.069	1.109	1.175
							24-Hour	9.088	9.553	10.483	11.445	11.771	12.266
							8-Hour	12.418	13.065	14.375	15.813	16.301	17.067
							3-Hour	14.769	15.613	16.846	18.090	18.511	19.159
							1-Hour	17.498	17.908	18.509	19.978	20.569	21.491
SO_2	17.7	16.9	15.6	12.0	11.0	10.0	Annual	0.1900	0.1912	0.1922	0.1617	0.1537	0.1480
							24-Hour	2.032	2.035	2.067	1.731	1.631	1.546
							3-Hour	3.30	3.33	3.32	2.74	2.57	2.41
PM_{10}	11.5	10.8	10.2	6.0	5.9	5.7	Annual	0.1237	0.1225	0.1253	0.0811	0.0821	0.0838
							24-Hour	1.322	1.303	1.347	0.868	0.872	0.875
NO_x/ NO_2	25.5	24.3	22.6	16.2	15.6	14.6	Annual	0.274	0.275	0.278	0.219	0.217	0.217
CO	59.1	56.3	52.2	49.4	47.4	44.5	8-Hour	9.25	9.27	9.45	9.85	9.73	9.58
							1-Hour	13.03	12.70	12.17	12.44	12.27	12.06
Fuel Oil													
Generic (10 g/s)	79.37	79.37	79.37	79.37	79.37	79.37	Annual	0.385	0.408	0.450	0.413	0.432	0.468
							24-Hour	4.476	4.721	5.258	4.761	4.994	5.498
							8-Hour	9.380	9.688	10.195	9.689	9.938	10.349
							3-Hour	12.152	12.543	13.194	12.527	12.825	13.360
							1-Hour	13.414	13.857	14.560	13.870	14.218	14.781
SO_2	3.6	3.4	3.1	2.8	2.7	2.5	Annual	0.0175	0.0175	0.0176	0.0146	0.0147	0.0148
							24-Hour	0.203	0.202	0.205	0.168	0.170	0.173
							3-Hour	0.551	0.537	0.515	0.442	0.436	0.421
PM_{10}	38.0	35.9	32.8	36.8	35.7	32.7	Annual	0.184	0.185	0.186	0.191	0.195	0.193
							24-Hour	2.14	2.14	2.17	2.20	2.25	2.26
NO_x/ NO_2	78.5	75.2	69.4	57.9	56.0	51.4	Annual	0.381	0.387	0.394	0.301	0.305	0.303
CO	47.8	45.8	42.3	37.2	35.9	33.3	8-Hour	5.65	5.59	5.43	4.54	4.50	4.35
							1-Hour	8.08	7.99	7.76	6.50	6.44	6.21

[a] Concentrations are based on highest concentrations predicted using five years of meteorological data from 2001 to 2005 of surface and upper air data from the National Weather Service stations at Palm Beach International Airport and Miami, respectively.

Pollutant concentrations were based on a modeled or generic concentration predicted using a modeled emission rate of 79.37 lb/hr (10 g/s) per power block. Specific pollutant concentrations were estimated by multiplying the modeled concentration (at 10 g/s) by the ratio of the specific pollutant emission rate to the modeled emission rate of 10 g/s.

[b] Duct firing included at 100 % operating load. Duct firing based on natural gas-fired duct burner with maximum heat input rate of 475 MMBtu/hr (HHV).

AERMOD

WCEC UNIT 3
SIGNIFICANT IMPACT ANALYSIS

```
CO STARTING
   TITLEONE 2001 FPL WEST COUNTY UNIT 3 - CT LOAD ANALYSIS, GAS 11/7/07
   TITLETWO GENERIC (10 g/s) EMISSION RATES FOR CC CTS
   MODELOPT DFAULT CONC NOWARN
   AVERTIME PERIOD 24 8 3 1
   POLLUTID GEN
   RUNORNOT RUN
CO FINISHED
**
***************************************
** ISCST3 Source Pathway
***************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION G3A1095 POINT 562202.790 2952748.590 4.000
   LOCATION G3B1095 POINT 562201.600 2952654.460 4.000
   LOCATION G3C1095 POINT 562200.640 2952609.610 4.000

   LOCATION G3A1059 POINT 562202.790 2952748.590 4.000
   LOCATION G3B1059 POINT 562201.600 2952654.460 4.000
   LOCATION G3C1059 POINT 562200.640 2952609.610 4.000

   LOCATION G3A1035 POINT 562202.790 2952748.590 4.000
   LOCATION G3B1035 POINT 562201.600 2952654.460 4.000
   LOCATION G3C1035 POINT 562200.640 2952609.610 4.000

   LOCATION G3A7595 POINT 562202.790 2952748.590 4.000
   LOCATION G3B7595 POINT 562201.600 2952654.460 4.000
   LOCATION G3C7595 POINT 562200.640 2952609.610 4.000

   LOCATION G3A7559 POINT 562202.790 2952748.590 4.000
   LOCATION G3B7559 POINT 562201.600 2952654.460 4.000
   LOCATION G3C7559 POINT 562200.640 2952609.610 4.000

   LOCATION G3A7535 POINT 562202.790 2952748.590 4.000
   LOCATION G3B7535 POINT 562201.600 2952654.460 4.000
   LOCATION G3C7535 POINT 562200.640 2952609.610 4.000

** Source Parameters **
** Baseload, 95 F, DB
   SRCPARAM G3A1095 3.3333   45.4   357.5    16.67  6.71
   SRCPARAM G3B1095 3.3333   45.4   357.5    16.67  6.71
   SRCPARAM G3C1095 3.3333   45.4   357.5    16.67  6.71
** Baseload, 59 F, DB
   SRCPARAM G3A1059 3.3333   45.4   357.9    18.01  6.71
   SRCPARAM G3B1059 3.3333   45.4   357.9    18.01  6.71
   SRCPARAM G3C1059 3.3333   45.4   357.9    18.01  6.71
** Baseload, 35 F, DB
   SRCPARAM G3A1035 3.3333   45.4   358.6    18.89  6.71
   SRCPARAM G3B1035 3.3333   45.4   358.6    18.89  6.71
   SRCPARAM G3C1035 3.3333   45.4   358.6    18.89  6.71
** 75% Load, 95 F
   SRCPARAM G3A7595 3.3333   45.4   359.3    13.95  6.71
   SRCPARAM G3B7595 3.3333   45.4   359.3    13.95  6.71
   SRCPARAM G3C7595 3.3333   45.4   359.3    13.95  6.71
** 75% Load, 59 F
   SRCPARAM G3A7559 3.3333   45.4   358.2    14.76  6.71
   SRCPARAM G3B7559 3.3333   45.4   358.2    14.76  6.71
   SRCPARAM G3C7559 3.3333   45.4   358.2    14.76  6.71
** 75% Load, 35 F
   SRCPARAM G3A7535 3.3333   45.4   357.6    15.28  6.71
   SRCPARAM G3B7535 3.3333   45.4   357.6    15.28  6.71
   SRCPARAM G3C7535 3.3333   45.4   357.6    15.28  6.71

** Building Downwash **
SO BUILDHGT G3A1035-G3A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1035-G3A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1035-G3A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1035-G3A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1035-G3A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1035-G3A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID G3A1035-G3A7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3A1035-G3A7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3A1035-G3A7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID G3A1035-G3A7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3A1035-G3A7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3A1035-G3A7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN G3A1035-G3A7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3A1035-G3A7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3A1035-G3A7595     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN G3A1035-G3A7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3A1035-G3A7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3A1035-G3A7595     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    G3A1035-G3A7595   -105.97  -109.86  -110.42   -35.01   -40.32   -44.41
SO XBADJ    G3A1035-G3A7595    -47.15   -48.46   -48.29   -48.24   -46.89   -44.11
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SO XBADJ     G3A1035-G3A7595   -40.00  -34.67  -28.29  -21.05  -13.17   -4.88
SO XBADJ     G3A1035-G3A7595    -3.08   -1.92   -0.71    0.53    1.75    2.92
SO XBADJ     G3A1035-G3A7595     3.99    4.95    5.76    4.82    3.55    2.18
SO XBADJ     G3A1035-G3A7595     0.74   -0.72   -2.15   -3.53   -4.79 -145.00
SO YBADJ     G3A1035-G3A7595    11.56   -5.58  -22.55   20.37   16.98   13.07
SO YBADJ     G3A1035-G3A7595     8.76    4.19   -0.51   -5.20   -9.73  -13.96
SO YBADJ     G3A1035-G3A7595   -17.77  -21.03  -23.66  -25.57  -26.71  -27.03
SO YBADJ     G3A1035-G3A7595   -26.53  -25.22  -23.15  -20.37  -16.98  -13.07
SO YBADJ     G3A1035-G3A7595    -8.76   -4.19    0.51    5.20    9.73   13.96
SO YBADJ     G3A1035-G3A7595    17.77   21.03   23.66   25.57   26.71   29.22

SO BUILDHGT G3B1035-G3B7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3B1035-G3B7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3B1035-G3B7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3B1035-G3B7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3B1035-G3B7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3B1035-G3B7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID G3B1035-G3B7595    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID G3B1035-G3B7595    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID G3B1035-G3B7595    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID G3B1035-G3B7595    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID G3B1035-G3B7595    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID G3B1035-G3B7595    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN G3B1035-G3B7595    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN G3B1035-G3B7595    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN G3B1035-G3B7595    39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN G3B1035-G3B7595    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN G3B1035-G3B7595    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN G3B1035-G3B7595    39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    G3B1035-G3B7595   -13.06  -21.00  -28.30  -34.75  -40.13  -67.76
SO XBADJ    G3B1035-G3B7595   -47.12  -48.51  -48.42  -48.44  -47.16  -44.45
SO XBADJ    G3B1035-G3B7595   -40.38  -35.09 -109.21 -109.09 -105.66   40.08
SO XBADJ    G3B1035-G3B7595    -3.50   -2.30   -1.03    0.27    1.56   26.26
SO XBADJ    G3B1035-G3B7595     3.96    5.00    5.89    5.02    3.83    2.52
SO XBADJ    G3B1035-G3B7595     1.13   -0.29   -1.70   -3.06  -48.90  -50.87
SO YBADJ    G3B1035-G3B7595    26.73   25.49   23.48   20.76   17.40  -25.37
SO YBADJ    G3B1035-G3B7595     9.22    4.65   -0.07   -4.78   -9.35  -13.64
SO YBADJ    G3B1035-G3B7595   -17.51  -20.84   24.43    7.74   -9.19  -28.03
SO YBADJ    G3B1035-G3B7595   -26.73  -25.49  -23.48  -20.76  -17.40   25.37
SO YBADJ    G3B1035-G3B7595    -9.22   -4.65    0.07    4.78    9.35   13.64
SO YBADJ    G3B1035-G3B7595    17.51   20.84   23.55   25.54   35.50   28.03

SO BUILDHGT G3C1035-G3C7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3C1035-G3C7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3C1035-G3C7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3C1035-G3C7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3C1035-G3C7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3C1035-G3C7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID G3C1035-G3C7595    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID G3C1035-G3C7595    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID G3C1035-G3C7595    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID G3C1035-G3C7595    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID G3C1035-G3C7595    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID G3C1035-G3C7595    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN G3C1035-G3C7595    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN G3C1035-G3C7595    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN G3C1035-G3C7595    39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN G3C1035-G3C7595    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN G3C1035-G3C7595    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN G3C1035-G3C7595    39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    G3C1035-G3C7595    31.27  -21.50  -28.74  -35.12  -40.43  -44.50
SO XBADJ    G3C1035-G3C7595   -47.23  -48.52  -48.34  -48.26  -46.89  -66.04
SO XBADJ    G3C1035-G3C7595   -39.96  -34.62  -28.22  -20.96 -149.66   -4.77
SO XBADJ    G3C1035-G3C7595   -47.83   -1.81   -0.59    0.64    1.85    3.01
SO XBADJ    G3C1035-G3C7595     4.07    5.01    5.80    4.84    3.56   24.11
SO XBADJ    G3C1035-G3C7595     0.71   -0.77   -2.23   -3.61   -4.89   -6.02
SO YBADJ    G3C1035-G3C7595    33.57   25.23   23.13   20.34   16.92   12.99
SO YBADJ    G3C1035-G3C7595     8.67    4.09   -0.62   -5.32   -9.85   25.69
SO YBADJ    G3C1035-G3C7595   -17.88  -21.14  -23.76  -25.65   -0.45  -27.07
SO YBADJ    G3C1035-G3C7595   -33.57  -25.23  -23.13  -20.34  -16.92  -12.99
SO YBADJ    G3C1035-G3C7595    -8.67   -4.09    0.62    5.32    9.85  -25.69
SO YBADJ    G3C1035-G3C7595    17.88   21.14   23.76   25.65   26.77   27.07

   SRCGROUP G31095 G3A1095 G3B1095 G3C1095
   SRCGROUP G31059 G3A1059 G3B1059 G3C1059
   SRCGROUP G31035 G3A1035 G3B1035 G3C1035
   SRCGROUP G37595 G3A7595 G3B7595 G3C7595
   SRCGROUP G37559 G3A7559 G3B7559 G3C7559
   SRCGROUP G37535 G3A7535 G3B7535 G3C7535

SO FINISHED
**
****************************************
** ISCST3 Receptor Pathway
****************************************
**
**
RE STARTING
```

```
   INCLUDED wc3a.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE C:\amodmet\PBIMIA01.SFC
   PROFFILE C:\amodmet\PBIMIA01.PFL
   SURFDATA 12844 2001 WEST_PALM_BEACH/INT'L_ARPT
   UAIRDATA 92803 2001 MIAMI/FIU
   PROFBASE 19 FEET
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE FIRST
OU FINISHED
**
```

AERBOB RELEASE 020304

AERMOD OUTPUT FILE NUMBER 1 :gengas.o01
AERMOD OUTPUT FILE NUMBER 2 :gengas.o02
AERMOD OUTPUT FILE NUMBER 3 :gengas.o03
AERMOD OUTPUT FILE NUMBER 4 :gengas.o04
AERMOD OUTPUT FILE NUMBER 5 :gengas.o05
First title for last output file is: 2001 FPL WEST COUNTY UNIT 3 - CT LOAD ANALYSIS, GAS 11/7/07
Second title for last output file is: GENERIC (10 g/s) EMISSION RATES FOR CC CTS

AVERAGING TIME	YEAR	CONC (ug/m3)	X (m)	Y (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	G31095				
Annual					
	2001	0.97511	561550.	2952600.	01123124
	2002	0.82531	561650.	2953000.	02123124
	2003	0.76313	561750.	2953100.	03123124
	2004	0.94260	561550.	2952600.	04123124
	2005	0.75156	561550.	2952700.	05123124
HIGH 24-Hour					
	2001	10.48268	561650.	2952500.	01110124
	2002	6.50643	561850.	2953200.	02123124
	2003	7.16367	561650.	2952600.	03120324
	2004	8.39108	562335.	2953194.	04090524
	2005	9.47116	561550.	2952500.	05120724
HIGH 8-Hour					
	2001	14.37501	561750.	2952500.	01100924
	2002	9.21960	561950.	2953100.	02030216
	2003	10.78288	561650.	2952400.	03111024
	2004	13.51055	562350.	2953000.	04090508
	2005	13.19098	561650.	2952500.	05120724
HIGH 3-Hour					
	2001	16.01188	561750.	2952600.	01103121
	2002	13.41045	561650.	2952700.	02030121
	2003	13.74356	561650.	2952600.	03120321
	2004	16.84558	561750.	2952500.	04110924
	2005	15.46107	561750.	2952500.	05092003
HIGH 1-Hour					
	2001	18.29694	561750.	2952500.	01100919
	2002	15.90518	561750.	2952700.	02030122
	2003	16.50239	561750.	2952400.	03111018
	2004	18.50915	562550.	2952600.	04092520
	2005	17.85722	561750.	2952600.	05092003
SOURCE GROUP ID:	G31059				
Annual					
	2001	0.89797	561550.	2952600.	01123124
	2002	0.76833	561650.	2953000.	02123124
	2003	0.71142	561750.	2953100.	03123124
	2004	0.86416	561550.	2952600.	04123124
	2005	0.69297	561550.	2952700.	05123124
HIGH 24-Hour					
	2001	9.55312	561650.	2952500.	01110124
	2002	5.81548	561850.	2953300.	02123124
	2003	6.51072	561550.	2952600.	03120324
	2004	7.84879	562335.	2953194.	04090524
	2005	8.79429	561550.	2952500.	05120724
HIGH 8-Hour					
	2001	13.06463	561650.	2952500.	01100924
	2002	7.91471	561550.	2952700.	02030124
	2003	9.75980	561650.	2952400.	03111024
	2004	12.72157	562350.	2953000.	04090508
	2005	12.29155	561650.	2952500.	05120724
HIGH 3-Hour					
	2001	14.65333	561650.	2952600.	01110124
	2002	12.17907	561550.	2952700.	02030121
	2003	12.46909	561650.	2952400.	03111021
	2004	15.61297	561750.	2952500.	04110924
	2005	14.57432	561650.	2952500.	05092003
HIGH 1-Hour					
	2001	17.38307	561750.	2952500.	01100919
	2002	14.63062	561650.	2952700.	02030122
	2003	15.18774	561750.	2952400.	03111018
	2004	17.90794	562550.	2952700.	04090422
	2005	16.55636	561750.	2952600.	05092003
SOURCE GROUP ID:	G31035				
Annual					
	2001	0.84986	561550.	2952600.	01123124
	2002	0.73196	561650.	2953000.	02123124
	2003	0.67865	561750.	2953100.	03123124
	2004	0.81615	561550.	2952600.	04123124
	2005	0.65632	561550.	2952700.	05123124
HIGH 24-Hour					
	2001	9.08770	561550.	2952500.	01110124
	2002	5.43560	561750.	2953400.	02123124
	2003	6.09174	561550.	2952600.	03120324
	2004	7.52389	562335.	2953194.	04090524

	2005	8.34249	561550.	2952500.	05120724
HIGH 8-Hour					
	2001	12.41772	561650.	2952500.	01100924
	2002	7.44727	561550.	2952700.	02030124
	2003	9.11651	561650.	2952400.	03111024
	2004	12.21803	562350.	2953000.	04090508
	2005	11.68140	561650.	2952500.	05120724
HIGH 3-Hour					
	2001	14.35025	561750.	2952400.	01100821
	2002	11.58098	561550.	2952700.	02030121
	2003	11.75836	561550.	2952600.	03120321
	2004	14.76879	561750.	2952500.	04110924
	2005	13.98971	561650.	2952500.	05092003
HIGH 1-Hour					
	2001	16.74535	561750.	2952500.	01100919
	2002	14.05389	561650.	2952700.	02030122
	2003	14.47475	561650.	2952800.	03120323
	2004	17.49827	562550.	2952700.	04090422
	2005	16.00531	561970.	2953144.	05011402
SOURCE GROUP ID:	G37595				
Annual					
	2001	1.17466	561650.	2952600.	01123124
	2002	0.96349	561750.	2953000.	02123124
	2003	0.88463	561750.	2953000.	03123124
	2004	1.12754	561550.	2952600.	04123124
	2005	0.88554	561550.	2952700.	05123124
HIGH 24-Hour					
	2001	12.26622	561650.	2952500.	01110124
	2002	7.56776	561650.	2952500.	02040724
	2003	8.91807	561650.	2952600.	03120324
	2004	9.74471	561650.	2952600.	04032624
	2005	11.28776	561650.	2952500.	05120724
HIGH 8-Hour					
	2001	17.06705	561750.	2952500.	01100924
	2002	11.35377	561950.	2953100.	02030216
	2003	12.88190	561650.	2952400.	03111024
	2004	15.11114	562350.	2953000.	04090508
	2005	15.13088	561750.	2952500.	05120724
HIGH 3-Hour					
	2001	18.98173	561750.	2952600.	01110124
	2002	15.76095	561650.	2952700.	02030121
	2003	16.20810	561750.	2952400.	03111021
	2004	19.15937	561750.	2952500.	04110924
	2005	17.80971	561750.	2952500.	05092003
HIGH 1-Hour					
	2001	21.49055	561850.	2952500.	01100918
	2002	18.41393	561750.	2952700.	02030122
	2003	18.94292	561750.	2952400.	03111018
	2004	20.15144	561750.	2952600.	04092201
	2005	21.06202	561850.	2952500.	05100221
SOURCE GROUP ID:	G37559				
Annual					
	2001	1.10891	561650.	2952600.	01123124
	2002	0.91993	561750.	2953000.	02123124
	2003	0.84481	561750.	2953100.	03123124
	2004	1.07008	561550.	2952600.	04123124
	2005	0.84444	561550.	2952700.	05123124
HIGH 24-Hour					
	2001	11.77067	561650.	2952500.	01110124
	2002	7.14104	561650.	2952500.	02040724
	2003	8.39081	561650.	2952600.	03120324
	2004	9.32087	561650.	2952400.	04111524
	2005	10.71072	561650.	2952500.	05120724
HIGH 8-Hour					
	2001	16.30077	561750.	2952500.	01100924
	2002	10.48848	561950.	2953100.	02030216
	2003	12.27098	561650.	2952400.	03111024
	2004	14.64069	562350.	2953000.	04090508
	2005	14.42079	561750.	2952500.	05120724
HIGH 3-Hour					
	2001	18.13634	561750.	2952600.	01110124
	2002	15.09158	561650.	2952700.	02030121
	2003	15.50529	561650.	2952600.	03120321
	2004	18.51093	561750.	2952500.	04110924
	2005	17.15156	561750.	2952500.	05092003
HIGH 1-Hour					
	2001	20.56889	561850.	2952500.	01100918
	2002	17.70211	561750.	2952700.	02030122
	2003	18.26289	561750.	2952400.	03111018
	2004	19.45195	561750.	2952600.	04092201
	2005	20.04321	561850.	2952500.	05100221
SOURCE GROUP ID:	G37535				
Annual					
	2001	1.06925	561650.	2952600.	01123124
	2002	0.89250	561750.	2953000.	02123124
	2003	0.82343	561750.	2953100.	03123124
	2004	1.03602	561550.	2952600.	04123124
	2005	0.81988	561550.	2952700.	05123124

HIGH 24-Hour					
	2001	11.44525	561650.	2952500.	01110124
	2002	7.10399	561850.	2953200.	02123124
	2003	8.06289	561650.	2952600.	03120324
	2004	9.14972	561650.	2952400.	04111524
	2005	10.34471	561650.	2952500.	05120724
HIGH 8-Hour					
	2001	15.81261	561750.	2952500.	01100924
	2002	10.14814	561950.	2953100.	02030216
	2003	11.88457	561650.	2952400.	03111024
	2004	14.33209	562350.	2953000.	04090508
	2005	14.10593	561650.	2952500.	05120724
HIGH 3-Hour					
	2001	17.59252	561750.	2952600.	01110124
	2002	14.66247	561650.	2952700.	02030121
	2003	15.05759	561650.	2952600.	03120321
	2004	18.09022	561750.	2952500.	04110924
	2005	16.72574	561750.	2952500.	05092003
HIGH 1-Hour					
	2001	19.97759	561850.	2952500.	01100918
	2002	17.24310	561750.	2952700.	02030122
	2003	17.82115	561750.	2952400.	03111018
	2004	19.31943	561850.	2952500.	04111501
	2005	19.39261	561850.	2952500.	05100221

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

```
CO STARTING
   TITLEONE 2001 FPL WEST COUNTY UNIT 3 - CT LOAD ANALYSIS, OIL 11/7/07
   TITLETWO GENERIC (10 g/s) EMISSION RATES FOR CC CTS
   MODELOPT DFAULT CONC NOWARN
   AVERTIME PERIOD 24 8 3 1
   POLLUTID GEN
   RUNORNOT RUN
CO FINISHED
**
****************************************
** ISCST3 Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION 03A1095 POINT 562202.790 2952748.590 4.000
   LOCATION 03B1095 POINT 562201.600 2952654.460 4.000
   LOCATION 03C1095 POINT 562200.640 2952609.610 4.000

   LOCATION 03A1059 POINT 562202.790 2952748.590 4.000
   LOCATION 03B1059 POINT 562201.600 2952654.460 4.000
   LOCATION 03C1059 POINT 562200.640 2952609.610 4.000

   LOCATION 03A1035 POINT 562202.790 2952748.590 4.000
   LOCATION 03B1035 POINT 562201.600 2952654.460 4.000
   LOCATION 03C1035 POINT 562200.640 2952609.610 4.000

   LOCATION 03A7595 POINT 562202.790 2952748.590 4.000
   LOCATION 03B7595 POINT 562201.600 2952654.460 4.000
   LOCATION 03C7595 POINT 562200.640 2952609.610 4.000

   LOCATION 03A7559 POINT 562202.790 2952748.590 4.000
   LOCATION 03B7559 POINT 562201.600 2952654.460 4.000
   LOCATION 03C7559 POINT 562200.640 2952609.610 4.000

   LOCATION 03A7535 POINT 562202.790 2952748.590 4.000
   LOCATION 03B7535 POINT 562201.600 2952654.460 4.000
   LOCATION 03C7535 POINT 562200.640 2952609.610 4.000

** Source Parameters **
** Baseload Load, 95 F
   SRCPARAM 03A1095 3.3333   45.4   452.0    20.77  6.71
   SRCPARAM 03B1095 3.3333   45.4   452.0    20.77  6.71
   SRCPARAM 03C1095 3.3333   45.4   452.0    20.77  6.71
** Baseload, 59 F
   SRCPARAM 03A1059 3.3333   45.4   453.7    22.54  6.71
   SRCPARAM 03B1059 3.3333   45.4   453.7    22.54  6.71
   SRCPARAM 03C1059 3.3333   45.4   453.7    22.54  6.71
** Baseload, 35 F
   SRCPARAM 03A1035 3.3333   45.4   454.8    23.66  6.71
   SRCPARAM 03B1035 3.3333   45.4   454.8    23.66  6.71
   SRCPARAM 03C1035 3.3333   45.4   454.8    23.66  6.71
** 75% Load, 95 F
   SRCPARAM 03A7595 3.3333   45.4   447.0    20.36  6.71
   SRCPARAM 03B7595 3.3333   45.4   447.0    20.36  6.71
   SRCPARAM 03C7595 3.3333   45.4   447.0    20.36  6.71
** 75% Load, 59 F
   SRCPARAM 03A7559 3.3333   45.4   448.7    21.77  6.71
   SRCPARAM 03B7559 3.3333   45.4   448.7    21.77  6.71
   SRCPARAM 03C7559 3.3333   45.4   448.7    21.77  6.71
** 75% Load, 35 F
   SRCPARAM 03A7535 3.3333   45.4   449.8    22.64  6.71
   SRCPARAM 03B7535 3.3333   45.4   449.8    22.64  6.71
   SRCPARAM 03C7535 3.3333   45.4   449.8    22.64  6.71

** Building Downwash **
SO BUILDHGT 03A1035-03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A1035-03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A1035-03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A1035-03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A1035-03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A1035-03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID 03A1035-03A7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID 03A1035-03A7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID 03A1035-03A7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID 03A1035-03A7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID 03A1035-03A7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID 03A1035-03A7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN 03A1035-03A7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN 03A1035-03A7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN 03A1035-03A7595     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN 03A1035-03A7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN 03A1035-03A7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN 03A1035-03A7595     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    03A1035-03A7595   -105.97  -109.86  -110.42   -35.01   -40.32   -44.41
SO XBADJ    03A1035-03A7595    -47.15   -48.46   -48.29   -48.24   -46.89   -44.11
```

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SO XBADJ     03A1035-03A7595   -40.00  -34.67  -28.29  -21.05  -13.17   -4.88
SO XBADJ     03A1035-03A7595    -3.08   -1.92   -0.71    0.53    1.75    2.92
SO XBADJ     03A1035-03A7595     3.99    4.95    5.76    4.82    3.55    2.18
SO XBADJ     03A1035-03A7595     0.74   -0.72   -2.15   -3.53   -4.79 -145.00
SO YBADJ     03A1035-03A7595    11.56   -5.58  -22.55   20.37   16.98   13.07
SO YBADJ     03A1035-03A7595     8.76    4.19   -0.51   -5.20   -9.73  -13.96
SO YBADJ     03A1035-03A7595   -17.77  -21.03  -23.66  -25.57  -26.71  -27.03
SO YBADJ     03A1035-03A7595   -26.53  -25.22  -23.15  -20.37  -16.98  -13.07
SO YBADJ     03A1035-03A7595    -8.76   -4.19    0.51    5.20    9.73   13.96
SO YBADJ     03A1035-03A7595    17.77   21.03   23.66   25.57   26.71   29.22

SO BUILDHGT  03B1035-03B7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT  03B1035-03B7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT  03B1035-03B7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT  03B1035-03B7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT  03B1035-03B7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT  03B1035-03B7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID  03B1035-03B7595    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID  03B1035-03B7595    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID  03B1035-03B7595    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID  03B1035-03B7595    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID  03B1035-03B7595    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID  03B1035-03B7595    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN  03B1035-03B7595    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN  03B1035-03B7595    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN  03B1035-03B7595    39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN  03B1035-03B7595    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN  03B1035-03B7595    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN  03B1035-03B7595    39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ     03B1035-03B7595   -13.06  -21.00  -28.30  -34.75  -40.13  -67.76
SO XBADJ     03B1035-03B7595   -47.12  -48.51  -48.42  -48.44  -47.16  -44.45
SO XBADJ     03B1035-03B7595   -40.38  -35.09 -109.21 -109.09 -105.66   40.08
SO XBADJ     03B1035-03B7595    -3.50   -2.30   -1.03    0.27    1.56   26.26
SO XBADJ     03B1035-03B7595     3.96    5.00    5.89    5.02    3.83    2.52
SO XBADJ     03B1035-03B7595     1.13   -0.29   -1.70   -3.06  -48.90  -50.87
SO YBADJ     03B1035-03B7595    26.73   25.49   23.48   20.76   17.40  -25.37
SO YBADJ     03B1035-03B7595     9.22    4.65   -0.07   -4.78   -9.35  -13.64
SO YBADJ     03B1035-03B7595   -17.51  -20.84   24.43    7.74   -9.19  -28.03
SO YBADJ     03B1035-03B7595   -26.73  -25.49  -23.48  -20.76  -17.40   25.37
SO YBADJ     03B1035-03B7595    -9.22   -4.65    0.07    4.78    9.35   13.64
SO YBADJ     03B1035-03B7595    17.51   20.84   23.55   25.54   35.50   28.03

SO BUILDHGT  03C1035-03C7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT  03C1035-03C7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT  03C1035-03C7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT  03C1035-03C7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT  03C1035-03C7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT  03C1035-03C7595    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID  03C1035-03C7595    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID  03C1035-03C7595    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID  03C1035-03C7595    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID  03C1035-03C7595    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID  03C1035-03C7595    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID  03C1035-03C7595    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN  03C1035-03C7595    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN  03C1035-03C7595    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN  03C1035-03C7595    39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN  03C1035-03C7595    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN  03C1035-03C7595    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN  03C1035-03C7595    39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ     03C1035-03C7595    31.27  -21.50  -28.74  -35.12  -40.43  -44.50
SO XBADJ     03C1035-03C7595   -47.23  -48.52  -48.34  -48.26  -46.89  -66.04
SO XBADJ     03C1035-03C7595   -39.96  -34.62  -28.22  -20.96 -149.66   -4.77
SO XBADJ     03C1035-03C7595   -47.83   -1.81   -0.59    0.64    1.85    3.01
SO XBADJ     03C1035-03C7595     4.07    5.01    5.80    4.84    3.56   24.11
SO XBADJ     03C1035-03C7595     0.71   -0.77   -2.23   -3.61   -4.89   -6.02
SO YBADJ     03C1035-03C7595    33.57   25.23   23.13   20.34   16.92   12.99
SO YBADJ     03C1035-03C7595     8.67    4.09   -0.62   -5.32   -9.85   25.69
SO YBADJ     03C1035-03C7595   -17.88  -21.14  -23.76  -25.65   -0.45  -27.07
SO YBADJ     03C1035-03C7595   -33.57  -25.23  -23.13  -20.34  -16.92  -12.99
SO YBADJ     03C1035-03C7595    -8.67   -4.09    0.62    5.32    9.85  -25.69
SO YBADJ     03C1035-03C7595    17.88   21.14   23.76   25.65   26.77   27.07

   SRCGROUP 031095 03A1095 03B1095 03C1095
   SRCGROUP 031059 03A1059 03B1059 03C1059
   SRCGROUP 031035 03A1035 03B1035 03C1035
   SRCGROUP 037595 03A7595 03B7595 03C7595
   SRCGROUP 037559 03A7559 03B7559 03C7559
   SRCGROUP 037535 03A7535 03B7535 03C7535

SO FINISHED
**
*****************************************
** ISCST3 Receptor Pathway
*****************************************
**
**
RE STARTING
```

```
   INCLUDED wc3a.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE C:\amodmet\PBIMIA01.SFC
   PROFFILE C:\amodmet\PBIMIA01.PFL
   SURFDATA 12844 2001 WEST_PALM_BEACH/INT'L_ARPT
   UAIRDATA 92803 2001 MIAMI/FIU
   PROFBASE 19 FEET
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE FIRST
OU FINISHED
**
```

AERBOB RELEASE 020304

AERMOD OUTPUT FILE NUMBER 1 :genoil.o01
AERMOD OUTPUT FILE NUMBER 2 :genoil.o02
AERMOD OUTPUT FILE NUMBER 3 :genoil.o03
AERMOD OUTPUT FILE NUMBER 4 :genoil.o04
AERMOD OUTPUT FILE NUMBER 5 :genoil.o05
First title for last output file is: 2001 FPL WEST COUNTY UNIT 3 - CT LOAD ANALYSIS, OIL 11/7/07
Second title for last output file is: GENERIC (10 g/s) EMISSION RATES FOR CC CTS

AVERAGING TIME	YEAR	CONC (ug/m3)	X (m)	Y (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	031095				
Annual					
	2001	0.44972	561450.	2952600.	01123124
	2002	0.41416	561650.	2953100.	02123124
	2003	0.39257	561650.	2953100.	03123124
	2004	0.42995	561450.	2952600.	04123124
	2005	0.35283	561450.	2952700.	05123124
HIGH 24-Hour					
	2001	5.25791	561450.	2952500.	01110124
	2002	2.97833	561650.	2953500.	02123124
	2003	3.37528	561350.	2952500.	03120324
	2004	4.77568	562337.	2953292.	04090524
	2005	4.77012	561450.	2952500.	05120724
HIGH 8-Hour					
	2001	7.17093	561450.	2952400.	01100924
	2002	4.82948	561850.	2953300.	02030216
	2003	4.74545	561450.	2952300.	03111024
	2004	10.19542	562450.	2953100.	04090508
	2005	7.49894	561750.	2953000.	05102408
HIGH 3-Hour					
	2001	8.31655	561650.	2952300.	01100821
	2002	6.71068	561350.	2952700.	02030121
	2003	6.52853	561350.	2952600.	03120321
	2004	13.19391	562450.	2953000.	04090503
	2005	10.15934	561750.	2952900.	05102406
HIGH 1-Hour					
	2001	10.92831	561650.	2952500.	01100919
	2002	10.15851	561750.	2953100.	02120918
	2003	9.14127	561450.	2952800.	03120323
	2004	14.56030	562550.	2952700.	04092522
	2005	11.92710	561750.	2953000.	05102404
SOURCE GROUP ID:	031059				
Annual					
	2001	0.40836	561450.	2952600.	01123124
	2002	0.38053	561650.	2953100.	02123124
	2003	0.36214	561650.	2953100.	03123124
	2004	0.39078	561450.	2952600.	04123124
	2005	0.32295	561450.	2952700.	05123124
HIGH 24-Hour					
	2001	4.72106	561350.	2952500.	01110124
	2002	2.67720	561650.	2953500.	02123124
	2003	3.04369	561350.	2952500.	03120324
	2004	4.27173	562337.	2953292.	04090524
	2005	4.33466	561350.	2952500.	05120724
HIGH 8-Hour					
	2001	6.58414	561450.	2952400.	01100924
	2002	4.39941	561850.	2953300.	02030216
	2003	4.29606	561350.	2952200.	03111024
	2004	9.68772	562450.	2953100.	04090508
	2005	7.08598	561750.	2953000.	05102408
HIGH 3-Hour					
	2001	7.49905	561450.	2952500.	01103121
	2002	6.01617	561250.	2952700.	02030121
	2003	5.80974	561350.	2952600.	03120321
	2004	12.54266	562450.	2953000.	04090503
	2005	9.39349	561750.	2952900.	05102406
HIGH 1-Hour					
	2001	9.92534	561650.	2952500.	01100919
	2002	9.07387	561750.	2953100.	02120918
	2003	8.29640	561450.	2952800.	03120323
	2004	13.85718	562550.	2952700.	04092522
	2005	11.60361	561750.	2952900.	05082521
SOURCE GROUP ID:	031035				
Annual					
	2001	0.38538	561450.	2952600.	01123124
	2002	0.36141	561650.	2953100.	02123124
	2003	0.34467	561650.	2953100.	03123124
	2004	0.36908	561450.	2952600.	04123124
	2005	0.30627	561450.	2952700.	05123124
HIGH 24-Hour					
	2001	4.47614	561350.	2952500.	01110124
	2002	2.49812	561650.	2953500.	02123124
	2003	2.86223	561250.	2952500.	03120324
	2004	4.02637	562337.	2953341.	04090524

	2005	4.10962	561350.	2952500.	05120724
HIGH 8-Hour					
	2001	6.21988	561450.	2952400.	01100924
	2002	4.17114	561850.	2953300.	02030216
	2003	4.08638	561250.	2952200.	03111024
	2004	9.37969	562450.	2953100.	04090508
	2005	7.74046	561750.	2953000.	05102408
HIGH 3-Hour					
	2001	7.05574	561450.	2952500.	01103121
	2002	5.71097	561250.	2952700.	02030121
	2003	5.50389	561250.	2952600.	03120321
	2004	12.15209	562450.	2953000.	04090503
	2005	10.18625	561750.	2953000.	05102406
HIGH 1-Hour					
	2001	9.30428	561650.	2952500.	01100919
	2002	8.54018	561650.	2953200.	02120918
	2003	7.77598	561450.	2952800.	03120323
	2004	13.41415	562550.	2952700.	04092522
	2005	11.92307	561750.	2953000.	05102405
SOURCE GROUP ID:	O37595				
Annual					
	2001	0.46826	561450.	2952600.	01123124
	2002	0.42918	561650.	2953100.	02123124
	2003	0.40613	561650.	2953100.	03123124
	2004	0.44776	561450.	2952600.	04123124
	2005	0.36637	561450.	2952700.	05123124
HIGH 24-Hour					
	2001	5.49847	561450.	2952500.	01110124
	2002	3.11285	561750.	2953400.	02123124
	2003	3.50754	561350.	2952500.	03120324
	2004	4.95344	562337.	2953292.	04090524
	2005	4.98168	561450.	2952500.	05120724
HIGH 8-Hour					
	2001	7.41516	561450.	2952400.	01100924
	2002	4.99052	561850.	2953300.	02030216
	2003	4.98430	561450.	2952300.	03111024
	2004	10.34902	562450.	2953100.	04090508
	2005	7.66964	561750.	2953000.	05102408
HIGH 3-Hour					
	2001	8.73950	561650.	2952300.	01100821
	2002	6.96042	561350.	2952700.	02030121
	2003	6.79182	561350.	2952600.	03120321
	2004	13.36049	562450.	2953000.	04090503
	2005	10.29472	561750.	2952900.	05102406
HIGH 1-Hour					
	2001	11.28156	561650.	2952500.	01100919
	2002	10.54788	561750.	2953100.	02120918
	2003	9.51135	561550.	2952800.	03120323
	2004	14.78090	562550.	2952700.	04092522
	2005	12.23215	561750.	2953000.	05102404
SOURCE GROUP ID:	O37559				
Annual					
	2001	0.43244	561450.	2952600.	01123124
	2002	0.40023	561650.	2953100.	02123124
	2003	0.38008	561650.	2953100.	03123124
	2004	0.41367	561450.	2952600.	04123124
	2005	0.34042	561450.	2952700.	05123124
HIGH 24-Hour					
	2001	4.99449	561450.	2952500.	01110124
	2002	2.85717	561650.	2953500.	02123124
	2003	3.24031	561350.	2952500.	03120324
	2004	4.54042	562337.	2953292.	04090524
	2005	4.56120	561350.	2952500.	05120724
HIGH 8-Hour					
	2001	6.91560	561450.	2952400.	01100924
	2002	4.62000	561850.	2953300.	02030216
	2003	4.55038	561350.	2952200.	03111024
	2004	9.93788	562450.	2953100.	04090508
	2005	7.33250	561750.	2953000.	05102408
HIGH 3-Hour					
	2001	7.91592	561450.	2952500.	01103121
	2002	6.42294	561350.	2952700.	02030121
	2003	6.24256	561350.	2952600.	03120321
	2004	12.82488	562450.	2953000.	04090503
	2005	9.75987	561750.	2952900.	05102406
HIGH 1-Hour					
	2001	10.47184	561650.	2952500.	01100919
	2002	9.66360	561750.	2953100.	02120918
	2003	8.76204	561450.	2952800.	03120323
	2004	14.21782	562550.	2952700.	04092522
	2005	12.09377	561850.	2952900.	05082521
SOURCE GROUP ID:	O37535				
Annual					
	2001	0.41251	561450.	2952600.	01123124
	2002	0.38383	561650.	2953100.	02123124
	2003	0.36520	561650.	2953100.	03123124
	2004	0.39473	561450.	2952600.	04123124
	2005	0.32593	561450.	2952700.	05123124

HIGH 24-Hour					
	2001	4.76111	561350.	2952500.	01110124
	2002	2.70823	561650.	2953500.	02123124
	2003	3.07577	561350.	2952500.	03120324
	2004	4.29299	562337.	2953292.	04090524
	2005	4.37211	561350.	2952500.	05120724
HIGH 8-Hour					
	2001	6.63489	561450.	2952400.	01100924
	2002	4.41659	561850.	2953300.	02030216
	2003	4.34280	561350.	2952200.	03111024
	2004	9.68890	562450.	2953100.	04090508
	2005	7.10727	561750.	2953000.	05102408
HIGH 3-Hour					
	2001	7.54457	561450.	2952500.	01103121
	2002	6.06600	561350.	2952700.	02030121
	2003	5.87664	561350.	2952600.	03120321
	2004	12.52742	562450.	2953000.	04090503
	2005	9.40221	561750.	2952900.	05102406
HIGH 1-Hour					
	2001	9.97683	561650.	2952500.	01100919
	2002	9.13058	561750.	2953100.	02120918
	2003	8.34543	561450.	2952800.	03120323
	2004	13.87040	562550.	2952700.	04092522
	2005	11.64107	561750.	2952900.	05082521

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

```
CO STARTING
   TITLEONE 2001 FPL WEST COUNTY UNIT 3 - SO2 SIG ANALYSIS, GAS 11/6/07
   TITLETWO SO2 IMPACTS, CT/HRSGs AND FUEL HEATERS
   MODELOPT DFAULT CONC NOWARN
   AVERTIME PERIOD 24  3
   POLLUTID SO2
   RUNORNOT RUN
CO FINISHED
**
*****************************************
** ISCST3 Source Pathway
*****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION G3A1095 POINT 562202.790 2952748.590 4.000
   LOCATION G3B1095 POINT 562201.600 2952654.460 4.000
   LOCATION G3C1095 POINT 562200.640 2952609.610 4.000
   LOCATION FULHEAT3   POINT  562195.690 2952917.930 4.000
** Source Parameters **
** 100% Load, 95 F
   SRCPARAM G3A1095  1.97  45.4  357.5    16.67  6.71
   SRCPARAM G3B1095  1.97  45.4  357.5    16.67  6.71
   SRCPARAM G3C1095  1.97  45.4  357.5    16.67  6.71
   SRCPARAM FULHEAT3 0.0068 9.14   533.2 16.15 0.305

** Building Downwash **
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID G3A1095     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3A1095     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3A1095     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID G3A1095     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3A1095     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3A1095     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN G3A1095     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3A1095     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3A1095     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN G3A1095     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3A1095     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3A1095     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    G3A1095   -105.97 -109.86 -110.42   -35.01   -40.32   -44.41
SO XBADJ    G3A1095    -47.15   -48.46   -48.29   -48.24   -46.89   -44.11
SO XBADJ    G3A1095    -40.00   -34.67   -28.29   -21.05   -13.17    -4.88
SO XBADJ    G3A1095     -3.08    -1.92    -0.71     0.53     1.75     2.92
SO XBADJ    G3A1095      3.99     4.95     5.76     4.82     3.55     2.18
SO XBADJ    G3A1095      0.74    -0.72    -2.15    -3.53    -4.79 -145.00
SO YBADJ    G3A1095     11.56    -5.58   -22.55    20.37    16.98    13.07
SO YBADJ    G3A1095      8.76     4.19    -0.51    -5.20    -9.73   -13.96
SO YBADJ    G3A1095    -17.77   -21.03   -23.66   -25.57   -26.71   -27.03
SO YBADJ    G3A1095    -26.53   -25.22   -23.15   -20.37   -16.98   -13.07
SO YBADJ    G3A1095     -8.76    -4.19     0.51     5.20     9.73    13.96
SO YBADJ    G3A1095     17.77    21.03    23.66    25.57    26.71    29.22


SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID G3B1095     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3B1095     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3B1095     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID G3B1095     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3B1095     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3B1095     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN G3B1095     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3B1095     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3B1095     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN G3B1095     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3B1095     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3B1095     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    G3B1095    -13.06   -21.00   -28.30   -34.75   -40.13   -67.76
SO XBADJ    G3B1095    -47.12   -48.51   -48.42   -48.44   -47.16   -44.45
SO XBADJ    G3B1095    -40.38   -35.09 -109.21 -109.09 -105.66    40.08
SO XBADJ    G3B1095     -3.50    -2.30    -1.03     0.27     1.56    26.26
SO XBADJ    G3B1095      3.96     5.00     5.89     5.02     3.83     2.52
SO XBADJ    G3B1095      1.13    -0.29    -1.70    -3.06   -48.90   -50.87
SO YBADJ    G3B1095     26.73    25.49    23.48    20.76    17.40   -25.37
SO YBADJ    G3B1095      9.22     4.65    -0.07    -4.78    -9.35   -13.64
SO YBADJ    G3B1095    -17.51   -20.84    24.43     7.74    -9.19   -28.03
```

```
SO YBADJ     G3B1095    -26.73  -25.49  -23.48  -20.76  -17.40   25.37
SO YBADJ     G3B1095     -9.22   -4.65    0.07    4.78    9.35   13.64
SO YBADJ     G3B1095     17.51   20.84   23.55   25.54   35.50   28.03


SO BUILDHGT G3C1095      31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3C1095      31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3C1095      31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3C1095      31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3C1095      31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3C1095      31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID G3C1095      43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID G3C1095      24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID G3C1095      34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID G3C1095      43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID G3C1095      24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID G3C1095      34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN G3C1095      16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN G3C1095      43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN G3C1095      39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN G3C1095      16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN G3C1095      43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN G3C1095      39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    G3C1095      31.27  -21.50  -28.74  -35.12  -40.43  -44.50
SO XBADJ    G3C1095     -47.23  -48.52  -48.34  -48.26  -46.89  -66.04
SO XBADJ    G3C1095     -39.96  -34.62  -28.22  -20.96 -149.66   -4.77
SO XBADJ    G3C1095     -47.83   -1.81   -0.59    0.64    1.85    3.01
SO XBADJ    G3C1095       4.07    5.01    5.80    4.84    3.56   24.11
SO XBADJ    G3C1095       0.71   -0.77   -2.23   -3.61   -4.89   -6.02
SO YBADJ    G3C1095      33.57   25.23   23.13   20.34   16.92   12.99
SO YBADJ    G3C1095       8.67    4.09   -0.62   -5.32   -9.85   25.69
SO YBADJ    G3C1095     -17.88  -21.14  -23.76  -25.65   -0.45  -27.07
SO YBADJ    G3C1095     -33.57  -25.23  -23.13  -20.34  -16.92  -12.99
SO YBADJ    G3C1095      -8.67   -4.09    0.62    5.32    9.85  -25.69
SO YBADJ    G3C1095      17.88   21.14   23.76   25.65   26.77   27.07

SO BUILDHGT FULHEAT3      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3      0.00    0.00    0.00    0.00    0.00   26.82
SO BUILDHGT FULHEAT3     26.82   26.82   31.39   31.39   31.39   31.39
SO BUILDHGT FULHEAT3     31.39    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3      0.00    0.00    0.00    0.00    0.00   25.00
SO BUILDWID FULHEAT3     26.64   27.47   41.50   43.16   43.51   42.54
SO BUILDWID FULHEAT3     43.42    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3      0.00    0.00    0.00    0.00    0.00   27.46
SO BUILDLEN FULHEAT3     27.47   26.64   30.44   24.57   17.96   10.80
SO BUILDLEN FULHEAT3     16.56    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3      0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3      0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3      0.00    0.00    0.00    0.00    0.00 -146.49
SO XBADJ    FULHEAT3   -147.95 -144.92 -102.79 -104.28 -102.60 -143.85
SO XBADJ    FULHEAT3    -96.66    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3      0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3      0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3      0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3      0.00    0.00    0.00    0.00    0.00   20.00
SO YBADJ    FULHEAT3     -3.36  -26.61   33.12   17.41    1.18  -14.66
SO YBADJ    FULHEAT3    -30.92    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3      0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3      0.00    0.00    0.00    0.00    0.00    0.00

   SRCGROUP ALL
SO FINISHED
**
******************************************
** ISCST3 Receptor Pathway
******************************************
**
**
RE STARTING
   INCLUDED wc3A.rou
RE FINISHED
**
******************************************
** AERMOD Meteorology Pathway
******************************************
**
**
ME STARTING
   SURFFILE C:\amodmet\PBIMIA01.SFC
   PROFFILE C:\amodmet\PBIMIA01.PFL
   SURFDATA 12844 2001 WEST_PALM_BEACH/INT'L_ARPT
```

```
   UAIRDATA 92803 2001 MIAMI/FIU
   PROFBASE 19 FEET
ME FINISHED
**
*****************************************
** AERMOD Output Pathway
*****************************************
**
**
OU STARTING
   RECTABLE ALLAVE FIRST
   PLOTFILE 24 ALL FIRST SO2SIG24.p01
OU FINISHED
**
```

AERBOB RELEASE 020304

AERMOD OUTPUT FILE NUMBER 1 :SO2SIG.001
AERMOD OUTPUT FILE NUMBER 2 :SO2SIG.002
AERMOD OUTPUT FILE NUMBER 3 :SO2SIG.003
AERMOD OUTPUT FILE NUMBER 4 :SO2SIG.004
AERMOD OUTPUT FILE NUMBER 5 :SO2SIG.005
First title for last output file is: 2001 FPL WEST COUNTY UNIT 3 - SO2 SIG ANALYSIS, GAS 11/6/07
Second title for last output file is: SO2 IMPACTS, CT/HRSGs AND FUEL HEATERS

AVERAGING TIME	YEAR	CONC (ug/m3)	X (m)	Y (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	ALL				
Annual					
	2001	0.57984	561550.	2952600.	01123124
	2002	0.50024	561750.	2953000.	02123124
	2003	0.46498	561750.	2953100.	03123124
	2004	0.56033	561550.	2952600.	04123124
	2005	0.44838	561550.	2952700.	05123124
HIGH 24-Hour					
	2001	6.19929	561650.	2952500.	01110124
	2002	3.86205	561850.	2953200.	02123124
	2003	4.24044	561650.	2952600.	03120324
	2004	4.98085	562335.	2953194.	04090524
	2005	5.60206	561550.	2952500.	05120724
HIGH 3-Hour					
	2001	9.46982	561750.	2952600.	01103121
	2002	7.93350	561650.	2952700.	02030121
	2003	8.12854	561650.	2952600.	03120321
	2004	9.96170	561750.	2952500.	04110924
	2005	9.14210	561750.	2952500.	05092003

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

```
CO STARTING
   TITLEONE 2001 FPL WEST COUNTY UNIT 3 - PM10 SIG ANALYSIS, OIL 11/7/07
   TITLETWO PM10 IMPACTS, CT/HRSGs AND COOLING TOWERS
   MODELOPT DFAULT CONC NOWARN
   AVERTIME PERIOD 24
   POLLUTID PM.10
   RUNORNOT RUN
CO FINISHED
**
****************************************
** ISCST3 Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION 03A7595 POINT 562202.790 2952748.590 4.000
   LOCATION 03B7595 POINT 562201.600 2952654.460 4.000
   LOCATION 03C7595 POINT 562200.640 2952609.610 4.000

   LOCATION COOL3_01   POINT  562250.100 2952798.640 4.000
   LOCATION COOL3_02   POINT  562250.290 2952780.090 4.000
   LOCATION COOL3_03   POINT  562249.930 2952764.770 4.000
   LOCATION COOL3_04   POINT  562249.650 2952746.510 4.000
   LOCATION COOL3_05   POINT  562248.890 2952730.590 4.000
   LOCATION COOL3_06   POINT  562249.100 2952713.490 4.000
   LOCATION COOL3_07   POINT  562248.330 2952698.830 4.000
   LOCATION COOL3_08   POINT  562247.560 2952681.350 4.000
   LOCATION COOL3_09   POINT  562247.780 2952665.220 4.000
   LOCATION COOL3_10   POINT  562247.500 2952649.290 4.000
   LOCATION COOL3_11   POINT  562247.220 2952633.360 4.000
   LOCATION COOL3_12   POINT  562245.830 2952616.600 4.000
   LOCATION COOL3_13   POINT  562245.530 2952598.970 4.000
   LOCATION COOL3_14   POINT  562266.000 2952798.620 4.000
   LOCATION COOL3_15   POINT  562265.720 2952780.450 4.000
   LOCATION COOL3_16   POINT  562264.970 2952764.670 4.000
   LOCATION COOL3_17   POINT  562264.200 2952746.770 4.000
   LOCATION COOL3_18   POINT  562263.440 2952730.710 4.000
   LOCATION COOL3_19   POINT  562262.670 2952713.490 4.000
   LOCATION COOL3_20   POINT  562262.890 2952697.350 4.000
   LOCATION COOL3_21   POINT  562262.610 2952681.390 4.000
   LOCATION COOL3_22   POINT  562262.330 2952665.430 4.000
   LOCATION COOL3_23   POINT  562261.360 2952647.630 4.000
   LOCATION COOL3_24   POINT  562262.330 2952633.060 4.000
   LOCATION COOL3_25   POINT  562261.850 2952616.570 4.000
   LOCATION COOL3_26   POINT  562260.390 2952598.600 4.000
   LOCATION FULHEAT3   POINT  562195.690 2952917.930 4.000
** Source Parameters **
** 100% Load, 59 F
   SRCPARAM 03A7595  4.11    45.4  447.0 20.36 6.71
   SRCPARAM 03B7595  4.11    45.4  447.0 20.36 6.71
   SRCPARAM 03C7595  4.11    45.4  447.0 20.26 6.71
   SRCPARAM FULHEAT3 0.00252  9.14  533.2 16.15 0.305

   SRCPARAM COOL3_01 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_02 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_03 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_04 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_05 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_06 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_07 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_08 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_09 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_10 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_11 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_12 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_13 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_14 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_15 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_16 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_17 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_18 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_19 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_20 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_21 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_22 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_23 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_24 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_25 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_26 0.00565 19.202 309.2 7.17 10.668

** Building Downwash **
SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
```

```
SO BUILDHGT O3A7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID O3A7595     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID O3A7595     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID O3A7595     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID O3A7595     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID O3A7595     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID O3A7595     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN O3A7595     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN O3A7595     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN O3A7595     39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN O3A7595     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN O3A7595     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN O3A7595     39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    O3A7595   -105.97 -109.86 -110.42  -35.01  -40.32  -44.41
SO XBADJ    O3A7595    -47.15  -48.46  -48.29  -48.24  -46.89  -44.11
SO XBADJ    O3A7595    -40.00  -34.67  -28.29  -21.05  -13.17   -4.88
SO XBADJ    O3A7595     -3.08   -1.92   -0.71    0.53    1.75    2.92
SO XBADJ    O3A7595      3.99    4.95    5.76    4.82    3.55    2.18
SO XBADJ    O3A7595      0.74   -0.72   -2.15   -3.53   -4.79 -145.00
SO YBADJ    O3A7595     11.56   -5.58  -22.55   20.37   16.98   13.07
SO YBADJ    O3A7595      8.76    4.19   -0.51   -5.20   -9.73  -13.96
SO YBADJ    O3A7595    -17.77  -21.03  -23.66  -25.57  -26.71  -27.03
SO YBADJ    O3A7595    -26.53  -25.22  -23.15  -20.37  -16.98  -13.07
SO YBADJ    O3A7595     -8.76   -4.19    0.51    5.20    9.73   13.96
SO YBADJ    O3A7595     17.77   21.03   23.66   25.57   26.71   29.22

SO BUILDHGT O3B7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT O3B7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT O3B7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT O3B7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT O3B7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT O3B7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID O3B7595     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID O3B7595     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID O3B7595     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID O3B7595     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID O3B7595     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID O3B7595     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN O3B7595     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN O3B7595     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN O3B7595     39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN O3B7595     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN O3B7595     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN O3B7595     39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    O3B7595    -13.06  -21.00  -28.30  -34.75  -40.13  -67.76
SO XBADJ    O3B7595    -47.12  -48.51  -48.42  -48.44  -47.16  -44.45
SO XBADJ    O3B7595    -40.38  -35.09 -109.21 -109.09 -105.66   40.08
SO XBADJ    O3B7595     -3.50   -2.30   -1.03    0.27    1.56   26.26
SO XBADJ    O3B7595      3.96    5.00    5.89    5.02    3.83    2.52
SO XBADJ    O3B7595      1.13   -0.29   -1.70   -3.06  -48.90  -50.87
SO YBADJ    O3B7595     26.73   25.49   23.48   20.76   17.40  -25.37
SO YBADJ    O3B7595      9.22    4.65   -0.07   -4.78   -9.35  -13.64
SO YBADJ    O3B7595    -17.51  -20.84   24.43    7.74   -9.19  -28.03
SO YBADJ    O3B7595    -26.73  -25.49  -23.48  -20.76  -17.40   25.37
SO YBADJ    O3B7595     -9.22   -4.65    0.07    4.78    9.35   13.64
SO YBADJ    O3B7595     17.51   20.84   23.55   25.54   35.50   28.03

SO BUILDHGT O3C7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT O3C7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT O3C7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT O3C7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT O3C7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT O3C7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID O3C7595     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID O3C7595     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID O3C7595     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID O3C7595     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID O3C7595     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID O3C7595     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN O3C7595     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN O3C7595     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN O3C7595     39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN O3C7595     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN O3C7595     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN O3C7595     39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    O3C7595     31.27  -21.50  -28.74  -35.12  -40.43  -44.50
SO XBADJ    O3C7595    -47.23  -48.52  -48.34  -48.26  -46.89  -66.04
SO XBADJ    O3C7595    -39.96  -34.62  -28.22  -20.96 -149.66   -4.77
SO XBADJ    O3C7595    -47.83   -1.81   -0.59    0.64    1.85    3.01
SO XBADJ    O3C7595      4.07    5.01    5.80    4.84    3.56   24.11
SO XBADJ    O3C7595      0.71   -0.77   -2.23   -3.61   -4.89   -6.02
SO YBADJ    O3C7595     33.57   25.23   23.13   20.34   16.92   12.99
SO YBADJ    O3C7595      8.67    4.09   -0.62   -5.32   -9.85   25.69
SO YBADJ    O3C7595    -17.88  -21.14  -23.76  -25.65   -0.45  -27.07
SO YBADJ    O3C7595    -33.57  -25.23  -23.13  -20.34  -16.92  -12.99
SO YBADJ    O3C7595     -8.67   -4.09    0.62    5.32    9.85  -25.69
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SO YBADJ    03C7595    17.88   21.14   23.76   25.65   26.77   27.07

SO BUILDHGT COOL3_01   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_01   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_01   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_01   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_01   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_01   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_01   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_01   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_01  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_01   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_01  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_01  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_01  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_01   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_01  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_01  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_01  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_01  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_01 -207.86 -173.08 -177.42 -176.37 -108.73 -110.41
SO XBADJ    COOL3_01 -108.73  -47.36  -11.22   -8.22   -8.70   -8.91
SO XBADJ    COOL3_01   -8.85   -8.53   -7.95   -7.12   -6.08   -4.85
SO XBADJ    COOL3_01   -8.05  -11.52  -14.64  -17.32  -19.47  -21.02
SO XBADJ    COOL3_01  -21.94  -22.19  -21.77  -54.16  -88.63 -120.42
SO XBADJ    COOL3_01 -148.54 -172.15 -190.53 -203.13 -209.54 -209.60
SO YBADJ    COOL3_01  -22.97   21.76   -6.61  -34.77    9.05   -6.62
SO YBADJ    COOL3_01  -22.09 -101.73 -102.37  -99.90  -94.40  -86.02
SO YBADJ    COOL3_01  -75.03  -61.76  -46.62  -30.06  -12.58    5.27
SO YBADJ    COOL3_01   22.97   39.97   55.75   69.84   81.81   91.29
SO YBADJ    COOL3_01   98.00  101.73  102.37   99.90   94.40   86.02
SO YBADJ    COOL3_01   75.03   61.76   46.62   30.06   12.58   -5.27


SO BUILDHGT COOL3_02   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_02   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_02   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_02   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_02   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_02   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_02   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_02   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_02  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_02   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL3_02  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_02  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_02  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_02   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_02  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_02  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL3_02  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_02  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_02 -189.62 -155.71 -161.45 -162.28  -96.96 -101.30
SO XBADJ    COOL3_02 -102.56  -44.32  -11.41  -11.62  -15.22  -18.35
SO XBADJ    COOL3_02  -20.92  -22.86  -24.10  -24.62  -24.38  -23.40
SO XBADJ    COOL3_02  -26.29  -28.89  -30.61  -31.41   58.38   59.80
SO XBADJ    COOL3_02  -28.11  -25.23  -21.58  -50.75  -82.11 -110.98
SO XBADJ    COOL3_02 -136.47 -157.82 -174.37 -185.63 -191.24 -191.05
SO YBADJ    COOL3_02  -19.56   28.28    2.83  -22.70   23.38    9.54
SO YBADJ    COOL3_02   -4.59  -83.43  -83.82  -81.67  -77.03  -70.05
SO YBADJ    COOL3_02  -60.94  -49.99  -37.51  -23.89   -9.55    5.08
SO YBADJ    COOL3_02   19.56   33.45   46.31   57.77  -23.38   -9.54
SO YBADJ    COOL3_02   80.51   83.43   83.82   81.67   77.03   70.05
SO YBADJ    COOL3_02   60.94   49.99   37.51   23.89    9.55   -5.08


SO BUILDHGT COOL3_03   14.94   31.39   31.39   31.39   14.94   31.39
SO BUILDHGT COOL3_03   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_03   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_03   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_03   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_03   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_03   62.37   43.33   41.93   39.26  180.68   30.44
SO BUILDWID COOL3_03   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_03  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_03   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL3_03  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_03  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_03  215.91   23.30   29.34   34.48  162.46   41.50
SO BUILDLEN COOL3_03   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_03  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_03  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL3_03  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_03  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_03 -174.47 -141.19 -148.00 -150.31 -121.09  -93.33
SO XBADJ    COOL3_03  -96.98  -97.69  -11.05  -13.93  -20.12  -25.70
SO XBADJ    COOL3_03  -30.50  -34.37  -37.19  -38.89  -39.40  -38.72
SO XBADJ    COOL3_03  -41.44  -43.41  -44.06  -43.37  -41.37   51.83
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SO XBADJ    COOL3_03  -33.68   -28.24   -21.94   -48.44   -77.21 -103.63
SO XBADJ    COOL3_03 -126.90 -146.32 -161.29 -171.36 -176.22 -175.73
SO YBADJ    COOL3_03  -17.26   33.18    10.18   -13.13   -55.98   22.63
SO YBADJ    COOL3_03    9.68   -3.56   -68.50   -66.52   -62.51  -56.60
SO YBADJ    COOL3_03  -48.98  -39.86   -29.54   -18.31    -6.53    5.44
SO YBADJ    COOL3_03   17.26   28.54    38.97    48.20    55.98  -22.63
SO YBADJ    COOL3_03   66.23   68.41    68.50    66.52    62.51   56.60
SO YBADJ    COOL3_03   48.98   39.86    29.54    18.31     6.53   -5.44


SO BUILDHGT COOL3_04   14.94   31.39    31.39    31.39    31.39   14.94
SO BUILDHGT COOL3_04   14.94   31.39    31.39    31.39    14.94   14.94
SO BUILDHGT COOL3_04   14.94   14.94    14.94    14.94    14.94   14.94
SO BUILDHGT COOL3_04   14.94   14.94    14.94    14.94    14.94   14.94
SO BUILDHGT COOL3_04   14.94   14.94    14.94    14.94    14.94   14.94
SO BUILDHGT COOL3_04   14.94   14.94    14.94    14.94    14.94   14.94
SO BUILDWID COOL3_04   62.37   43.33    41.93    39.26    35.39  198.48
SO BUILDWID COOL3_04  210.24   17.96    10.80    16.56   211.84  201.33
SO BUILDWID COOL3_04  184.70  162.46   135.28   104.00    69.55   32.99
SO BUILDWID COOL3_04   62.37   97.33   129.33   157.40   180.68  198.48
SO BUILDWID COOL3_04  210.24  215.62   214.45   215.91   211.84  201.33
SO BUILDWID COOL3_04  184.70  162.46   135.28   104.00    69.55   32.99
SO BUILDLEN COOL3_04  215.91   23.30    29.34    34.48    38.57  135.28
SO BUILDLEN COOL3_04  104.00   43.51    42.54    43.42    97.33  129.33
SO BUILDLEN COOL3_04  157.40  180.68   198.48   210.24   215.62  214.45
SO BUILDLEN COOL3_04  215.91  211.84   201.33   184.70   162.46  135.28
SO BUILDLEN COOL3_04  104.00   69.55    32.99    62.37    97.33  129.33
SO BUILDLEN COOL3_04  157.40  180.68   198.48   210.24   215.62  214.45
SO XBADJ    COOL3_04 -156.44 -166.90 -132.05 -136.15 -136.11  -87.81
SO XBADJ    COOL3_04  -63.80  -94.25   -95.15   -94.75   -26.10  -34.59
SO XBADJ    COOL3_04  -42.02  -48.17   -52.87   -55.95   -57.34  -56.98
SO XBADJ    COOL3_04  -59.47  -60.66   -60.01   -57.54   -53.32  -47.48
SO XBADJ    COOL3_04  -40.19  -31.69   -22.22   -45.55   -71.23  -94.74
SO XBADJ    COOL3_04 -115.38 -132.51 -145.61 -154.29 -158.28 -157.47
SO YBADJ    COOL3_04  -14.36   24.46    19.07    -1.60   -22.23  -46.37
SO YBADJ    COOL3_04  -49.17   14.37     1.57   -11.29   -45.26  -40.65
SO YBADJ    COOL3_04  -34.81  -27.91   -20.16   -11.81    -3.09    5.72
SO YBADJ    COOL3_04   14.36   22.56    30.08    36.68    42.17   46.37
SO YBADJ    COOL3_04   49.17   50.47    50.24    48.49    45.26   40.65
SO YBADJ    COOL3_04   34.81   27.91    20.16    11.81     3.09   -5.72


SO BUILDHGT COOL3_05   14.94   31.39    31.39    31.39    31.39   31.39
SO BUILDHGT COOL3_05   14.94   14.94    14.94    31.39    31.39   31.39
SO BUILDHGT COOL3_05   14.94   14.94    14.94    14.94    14.94   14.94
SO BUILDHGT COOL3_05   14.94   14.94    14.94    14.94    14.94   14.94
SO BUILDHGT COOL3_05   14.94   14.94    14.94    14.94    14.94   31.39
SO BUILDHGT COOL3_05   14.94   14.94    14.94    14.94    14.94   14.94
SO BUILDWID COOL3_05   62.37   43.33    41.93    39.26    35.39   30.44
SO BUILDWID COOL3_05  210.24  215.62   214.45    16.56    23.30   29.34
SO BUILDWID COOL3_05  184.70  162.46   135.28   104.00    69.55   32.99
SO BUILDWID COOL3_05   62.37   97.33   129.33   157.40   180.68  198.48
SO BUILDWID COOL3_05  210.24  215.62   214.45   215.91   211.84   29.34
SO BUILDWID COOL3_05  184.70  162.46   135.28   104.00    69.55   32.99
SO BUILDLEN COOL3_05  215.91   23.30    29.34    34.48    38.57   41.50
SO BUILDLEN COOL3_05  104.00   69.55    32.99    43.42    43.33   41.93
SO BUILDLEN COOL3_05  157.40  180.68   198.48   210.24   215.62  214.45
SO BUILDLEN COOL3_05  215.91  211.84   201.33   184.70   162.46  135.28
SO BUILDLEN COOL3_05  104.00   69.55    32.99    62.37    97.33   41.93
SO BUILDLEN COOL3_05  157.40  180.68   198.48   210.24   215.62  214.45
SO XBADJ    COOL3_05 -140.63 -151.68 -117.88 -123.46 -125.29 -123.32
SO XBADJ    COOL3_05  -57.65  -34.35   -10.01   -96.76   -96.36  -93.04
SO XBADJ    COOL3_05  -51.67  -59.88   -66.27   -70.65   -72.88  -72.90
SO XBADJ    COOL3_05  -75.28  -75.88   -74.18   -70.22   -64.13  -56.10
SO XBADJ    COOL3_05  -46.35  -35.20   -22.98   -43.53   -66.50   51.11
SO XBADJ    COOL3_05 -105.73 -120.80 -132.21 -139.59 -142.74 -141.55
SO YBADJ    COOL3_05  -12.35   29.19    26.37     8.05   -10.52  -28.77
SO YBADJ    COOL3_05  -34.47  -34.93   -34.32     4.52    -8.58  -21.42
SO YBADJ    COOL3_05  -22.13  -17.10   -11.55    -5.65     0.42    6.48
SO YBADJ    COOL3_05   12.35   17.83    22.78    27.03    30.46   32.97
SO YBADJ    COOL3_05   34.47   34.93    34.32    32.68    30.04   21.42
SO YBADJ    COOL3_05   22.13   17.10    11.55     5.65    -0.42   -6.48


SO BUILDHGT COOL3_06   14.94   31.39    31.39    31.39    31.39   31.39
SO BUILDHGT COOL3_06   14.94   14.94    14.94    14.94    31.39   31.39
SO BUILDHGT COOL3_06   31.39   31.39    14.94    14.94    14.94   14.94
SO BUILDHGT COOL3_06   14.94   14.94    14.94    14.94    14.94   14.94
SO BUILDHGT COOL3_06   14.94   14.94    14.94    14.94    14.94   14.94
SO BUILDHGT COOL3_06   31.39   31.39    14.94    14.94    14.94   14.94
SO BUILDWID COOL3_06   62.37   43.33    41.93    39.26    35.39   30.44
SO BUILDWID COOL3_06  210.24  215.62   214.45   215.91    23.30   29.34
SO BUILDWID COOL3_06   34.48   38.57   135.28   104.00    69.55   32.99
SO BUILDWID COOL3_06   62.37   97.33   129.33   157.40   180.68  198.48
SO BUILDWID COOL3_06  210.24  215.62   214.45   215.91   211.84  201.33
SO BUILDWID COOL3_06   34.48   38.57   135.28   104.00    69.55   32.99
SO BUILDLEN COOL3_06  215.91   23.30    29.34    34.48    38.57   41.50
SO BUILDLEN COOL3_06  104.00   69.55    32.99    62.37    43.33   41.93
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SO BUILDLEN COOL3_06    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL3_06   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL3_06   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_06    39.26    35.39   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_06 -123.83 -135.69 -103.18 -110.50 -114.46 -114.95
SO XBADJ    COOL3_06   -51.99   -31.59   -10.22   -22.02 -102.41 -101.77
SO XBADJ    COOL3_06   -98.04   -91.33   -81.19   -86.79   -89.76   -90.00
SO XBADJ    COOL3_06   -92.08   -91.88   -88.89   -83.19   -74.97   -64.46
SO XBADJ    COOL3_06   -52.00   -37.96   -22.77   -40.36   -60.45   -78.71
SO XBADJ    COOL3_06    58.78    55.94 -117.29 -123.45 -125.86 -124.45
SO YBADJ    COOL3_06    -9.17    35.23    35.10    19.20     2.71   -13.85
SO YBADJ    COOL3_06   -18.33   -18.05   -17.22   -15.87     7.42    -6.72
SO YBADJ    COOL3_06   -20.65   -33.95    -3.18     0.00     3.19     6.27
SO YBADJ    COOL3_06     9.17    11.79    14.04    15.88    17.23    18.05
SO YBADJ    COOL3_06    18.33    18.05    17.22    15.87    14.04    11.78
SO YBADJ    COOL3_06    20.65    33.95     3.18     0.00    -3.19    -6.27


SO BUILDHGT COOL3_07    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL3_07    31.39    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL3_07    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_07    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_07    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_07    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_07    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL3_07    24.57   215.62   214.45   215.91    23.30    29.34
SO BUILDWID COOL3_07    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL3_07    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL3_07   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_07   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_07   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL3_07    43.16    69.55    32.99    62.37    43.33    41.93
SO BUILDLEN COOL3_07    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL3_07   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL3_07   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_07   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_07 -109.26 -105.92 -129.86  -98.77 -104.45 -106.95
SO XBADJ    COOL3_07 -106.21  -28.28   -9.45  -23.81 -106.70 -108.43
SO XBADJ    COOL3_07 -106.87 -102.06  -93.50 -100.30 -104.06 -104.66
SO XBADJ    COOL3_07 -106.66 -105.92 -101.97  -94.91  -84.98  -72.46
SO XBADJ    COOL3_07   -57.74   -41.27   -23.54   -38.57   -56.16   -72.05
SO XBADJ    COOL3_07   -85.74   -96.83 -104.98 -109.94 -111.56 -109.79
SO YBADJ    COOL3_07    -7.38    -7.50    19.82    28.03    13.45    -1.54
SO YBADJ    COOL3_07   -16.49    -3.75    -2.56    -1.30    21.46     6.36
SO YBADJ    COOL3_07    -8.92   -23.94     4.82     5.74     6.49     7.04
SO YBADJ    COOL3_07     7.38     7.50     7.38     7.04     6.49     5.74
SO YBADJ    COOL3_07     4.82     3.75     2.56     1.30     0.00    -1.30
SO YBADJ    COOL3_07    -2.56    -3.75    -4.82    -5.74    -6.49    -7.04


SO BUILDHGT COOL3_08    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL3_08    31.39    31.39    14.94    14.94    14.94    31.39
SO BUILDHGT COOL3_08    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL3_08    14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL3_08    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_08    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_08    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL3_08    24.57    17.96   214.45   215.91   211.84    29.34
SO BUILDWID COOL3_08    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL3_08    62.37    97.33   129.33   157.40    35.39    30.44
SO BUILDWID COOL3_08   210.24   215.62.  214.45   215.91   211.84   201.33
SO BUILDWID COOL3_08   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_08   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL3_08    43.16    43.51    32.99    62.37    97.33    41.93
SO BUILDLEN COOL3_08    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL3_08   215.91   211.84   201.33   184.70    38.57    41.50
SO BUILDLEN COOL3_08   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_08   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_08   -91.91   -89.23 -114.33 -120.23   -92.62 -121.01
SO XBADJ    COOL3_08   -99.50   -98.44    -8.68   -26.08   -46.42 -116.51
SO XBADJ    COOL3_08 -117.52 -114.96 -108.91 -116.47 -121.14 -122.14
SO XBADJ    COOL3_08 -124.00 -122.61 -117.49 -108.80    54.05    56.05
SO XBADJ    COOL3_08   -64.44   -45.06   -24.31   -36.29   -50.91   -63.97
SO XBADJ    COOL3_08   -75.10   -83.94   -90.23   -93.78   -94.48   -92.31
SO YBADJ    COOL3_08    -5.10    -2.24    27.90    10.17    26.35   -25.67
SO YBADJ    COOL3_08    -0.33   -13.85    14.92    16.05    16.69    21.89
SO YBADJ    COOL3_08     4.96   -12.11   -28.82    12.44    10.29     7.81
SO YBADJ    COOL3_08     5.10     2.24    -0.69    -3.60   -26.35   -13.21
SO YBADJ    COOL3_08   -11.35   -13.33   -14.92   -16.05   -16.69   -16.83
SO YBADJ    COOL3_08   -16.45   -15.57   -14.23   -12.44   -10.29    -7.81


SO BUILDHGT COOL3_09    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL3_09    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_09    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL3_09    14.94    14.94    14.94    14.94    14.94    31.39
SO BUILDHGT COOL3_09    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_09    14.94    14.94    14.94    14.94    14.94    14.94
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SO BUILDWID COOL3_09    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL3_09    24.57    17.96   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_09    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL3_09    62.37    97.33   129.33   157.40   180.68    30.44
SO BUILDWID COOL3_09   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_09   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_09   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL3_09    43.16    43.51    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_09    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL3_09   215.91   211.84   201.33   184.70   162.46    41.50
SO BUILDLEN COOL3_09   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_09   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_09   -76.06   -74.15  -100.47  -108.02  -112.28  -113.13
SO XBADJ    COOL3_09   -94.19   -95.85    -8.90   -29.10   -52.15   -73.61
SO XBADJ    COOL3_09  -128.05  -127.46  -122.98  -131.70  -137.07  -138.27
SO XBADJ    COOL3_09  -139.85  -137.69  -131.35  -121.01  -107.00    48.17
SO XBADJ    COOL3_09   -69.75   -47.64   -24.09   -33.27   -45.18   -55.72
SO XBADJ    COOL3_09   -64.56   -71.44   -76.15   -78.54   -78.55   -76.18
SO YBADJ    COOL3_09    -2.09     3.48    36.15    20.70     4.62   -11.59
SO YBADJ    COOL3_09    14.91     2.07    31.05    31.89    31.77    30.68
SO YBADJ    COOL3_09    17.18    -1.91   -20.94    17.75    12.87     7.59
SO YBADJ    COOL3_09     2.09    -3.48    -8.95   -14.14   -18.90   -27.29
SO YBADJ    COOL3_09   -26.58   -29.26   -31.05   -31.89   -31.77   -30.68
SO YBADJ    COOL3_09   -28.66   -25.77   -22.10   -17.75   -12.87    -7.59

SO BUILDHGT COOL3_10    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL3_10    31.39    31.39    31.39    31.39    31.39    14.94
SO BUILDHGT COOL3_10    31.39    31.39    31.39    31.39    14.94    14.94
SO BUILDHGT COOL3_10    14.94    14.94    14.94    31.39    14.94    14.94
SO BUILDHGT COOL3_10    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_10    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_10    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL3_10    24.57    17.96    10.80    16.56    23.30   201.33
SO BUILDWID COOL3_10    34.48    38.57    41.50    43.16    69.55    32.99
SO BUILDWID COOL3_10    62.37    97.33   129.33    39.26   180.68   198.48
SO BUILDWID COOL3_10   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_10   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_10   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL3_10    43.16    43.51    42.54    43.42    43.33   129.33
SO BUILDLEN COOL3_10    39.26    35.39    30.44    24.57   215.62   214.45
SO BUILDLEN COOL3_10   215.91   211.84   201.33    34.48   162.46   135.28
SO BUILDLEN COOL3_10   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_10   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_10   -60.33   -59.08   -56.04   -95.64  -101.83  -104.93
SO XBADJ    COOL3_10  -104.84   -92.81   -94.32   -94.54   -92.06   -81.33
SO XBADJ    COOL3_10  -138.08  -139.48  -136.64  -129.65  -152.71  -154.20
SO XBADJ    COOL3_10  -155.59  -152.76  -145.28    61.16  -117.46   -97.95
SO XBADJ    COOL3_10   -75.46   -50.69   -24.37   -30.78   -40.00   -47.99
SO XBADJ    COOL3_10   -54.53   -59.42   -62.49   -63.67   -62.91   -60.25
SO YBADJ    COOL3_10     0.40     8.67    16.67    30.73    16.65     2.06
SO YBADJ    COOL3_10   -12.59    17.71     5.10    -7.66   -20.19    44.62
SO YBADJ    COOL3_10    29.56     8.54   -12.73   -33.62    15.91     7.87
SO YBADJ    COOL3_10    -0.40    -8.67   -16.67   -30.73   -30.93   -36.75
SO YBADJ    COOL3_10   -41.45   -44.90   -46.98   -47.63   -46.84   -44.62
SO YBADJ    COOL3_10   -41.05   -36.23   -30.31   -23.47   -15.91    -7.87

SO BUILDHGT COOL3_11    14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL3_11    31.39    31.39    14.94    31.39    31.39    31.39
SO BUILDHGT COOL3_11    31.39    31.39    31.39    31.39    14.94    14.94
SO BUILDHGT COOL3_11    14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL3_11    14.94    14.94    14.94    14.94    14.94    31.39
SO BUILDHGT COOL3_11    31.39    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_11    62.37    97.33   129.33   157.40    35.39    30.44
SO BUILDWID COOL3_11    24.57    17.96   214.45    16.56    23.30    29.34
SO BUILDWID COOL3_11    34.48    38.57    41.50    43.16    69.55    32.99
SO BUILDWID COOL3_11    62.37    97.33   129.33   157.40    35.39    30.44
SO BUILDWID COOL3_11   210.24   215.62   214.45   215.91   211.84    29.34
SO BUILDWID COOL3_11    34.48   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_11   215.91   211.84   201.33   184.70    38.57    41.50
SO BUILDLEN COOL3_11    43.16    43.51    32.99    43.42    43.33    41.93
SO BUILDLEN COOL3_11    39.26    35.39    30.44    24.57   215.62   214.45
SO BUILDLEN COOL3_11   215.91   211.84   201.33   184.70    38.57    41.50
SO BUILDLEN COOL3_11   104.00    69.55    32.99    62.37    97.33    41.93
SO BUILDLEN COOL3_11    39.26   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_11   -44.59   -44.02   -42.11   -38.92   -91.37   -96.72
SO XBADJ    COOL3_11   -99.12   -98.52    -8.34   -97.03   -97.24   -94.51
SO XBADJ    COOL3_11   -88.89  -151.50  -150.30  -144.52  -168.35  -170.13
SO XBADJ    COOL3_11  -171.32  -167.82  -159.22  -145.78    52.80    55.22
SO XBADJ    COOL3_11   -81.18   -53.73   -24.65   -28.29   -34.81    52.57
SO XBADJ    COOL3_11    49.64   -47.39   -48.84   -48.80   -47.28   -44.32
SO YBADJ    COOL3_11     2.89    13.85    24.39    34.19    28.67    15.72
SO YBADJ    COOL3_11     2.29   -11.21    62.91     8.08    -5.13   -18.17
SO YBADJ    COOL3_11   -30.67    19.00    -4.53   -27.91    18.95     8.15
SO YBADJ    COOL3_11    -2.89   -13.85   -24.39   -34.19   -28.67   -15.72
SO YBADJ    COOL3_11   -56.32   -60.54   -62.91   -63.37   -61.90    18.17
SO YBADJ    COOL3_11    30.67   -46.68   -38.51   -29.18   -18.95    -8.15
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SO BUILDHGT COOL3_12   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_12   31.39   31.39   31.39   14.94   31.39   31.39
SO BUILDHGT COOL3_12   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_12   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_12   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_12   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_12   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL3_12   24.57   17.96   10.80  215.91   23.30   29.34
SO BUILDWID COOL3_12   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL3_12   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL3_12   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_12   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_12  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL3_12   43.16   43.51   42.54   62.37   43.33   41.93
SO BUILDLEN COOL3_12   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL3_12  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL3_12   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_12   39.26   35.39  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_12  -27.84  -27.79  -26.90  -25.19  -22.71  -87.14
SO XBADJ    COOL3_12  -92.09  -94.24  -93.53  -35.62 -101.67 -101.68
SO XBADJ    COOL3_12  -98.60 -163.45 -164.12 -159.80 -184.61 -186.89
SO XBADJ    COOL3_12 -188.07 -184.05 -174.43 -159.51 -139.75   45.64
SO XBADJ    COOL3_12   48.93  -58.01  -26.04  -26.75  -30.38  -33.10
SO XBADJ    COOL3_12   59.35   57.14  -35.02  -33.52  -31.01  -27.56
SO YBADJ    COOL3_12    4.44   18.28   31.57   43.90   54.89   29.54
SO YBADJ    COOL3_12   17.56    5.05   -7.61   80.11   11.10   -2.96
SO YBADJ    COOL3_12  -16.93   30.84    5.06  -20.87   23.23    9.54
SO YBADJ    COOL3_12   -4.44  -18.28  -31.57  -43.90  -54.89  -29.54
SO YBADJ    COOL3_12  -17.56  -76.80  -79.67  -80.11  -78.13  -73.77
SO YBADJ    COOL3_12   16.93   30.39  -48.10  -36.22  -23.23   -9.54

SO BUILDHGT COOL3_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_13   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_13   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_13   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_13   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_13  210.24  215.62   10.80   16.56   23.30   29.34
SO BUILDWID COOL3_13   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL3_13   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_13  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL3_13  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_13  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_13  104.00   69.55   42.54   43.42   43.33   41.93
SO BUILDLEN COOL3_13   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL3_13  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_13  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL3_13  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_13  -10.43  -11.12  -11.48  -11.49  -11.15  -10.47
SO XBADJ    COOL3_13   -9.47   -8.19  -93.23  -94.32  -92.71 -110.24
SO XBADJ    COOL3_13 -109.71 -105.84 -179.23 -176.26 -201.92 -204.52
SO XBADJ    COOL3_13 -205.48 -200.72 -189.85 -173.21 -151.31 -124.82
SO XBADJ    COOL3_13  -94.53  -61.36  -26.34  -23.99  -24.64   46.36
SO XBADJ    COOL3_13  -23.70  -22.13  -19.90  -17.06  -13.70   -9.93
SO YBADJ    COOL3_13    7.20   24.03   40.12   55.00   68.21   79.34
SO YBADJ    COOL3_13   88.06   94.11   10.02   -2.63  -15.20   12.46
SO YBADJ    COOL3_13   -3.24  -18.83   14.13  -14.56   26.59    9.84
SO YBADJ    COOL3_13   -7.20  -24.03  -40.12  -55.00  -68.21  -79.34
SO YBADJ    COOL3_13  -88.06  -94.11  -97.30  -97.53  -94.80   27.31
SO YBADJ    COOL3_13  -80.86  -70.08  -57.17  -42.53  -26.59   -9.84

SO BUILDHGT COOL3_14   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_14   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_14   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_14   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_14  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_14   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_14  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_14  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_14  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_14   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_14  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_14  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_14  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_14  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_14 -210.60 -178.50 -185.35 -186.57 -120.90 -124.17
SO XBADJ    COOL3_14 -123.66  -63.01  -27.12  -23.88  -23.64  -22.69
SO XBADJ    COOL3_14  -21.05  -18.76  -15.91  -12.58   -8.86   -4.87
SO XBADJ    COOL3_14   -5.31   -6.10   -6.71   -7.11   -7.30   -7.26
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SO XBADJ     COOL3_14   -7.01    -6.54    -5.87   -38.50   -73.69 -106.64
SO XBADJ     COOL3_14 -136.35  -161.92  -182.57  -197.67  -206.76 -209.58
SO YBADJ     COOL3_14   -7.31    36.70     7.17   -22.57    19.28    1.35
SO YBADJ     COOL3_14  -16.63   -98.95  -102.35  -102.64   -99.81  -93.95
SO YBADJ     COOL3_14  -85.24   -73.93   -60.38   -44.99   -28.24  -10.63
SO YBADJ     COOL3_14    7.31    25.02    41.97    57.65    71.58   83.33
SO YBADJ     COOL3_14   92.55    98.95   102.35   102.64    99.81   93.95
SO YBADJ     COOL3_14   85.24    73.93    60.38    44.99    28.24   10.63


SO BUILDHGT  COOL3_15   14.94    14.94    31.39    31.39    31.39   31.39
SO BUILDHGT  COOL3_15   31.39    31.39    14.94    14.94    14.94   14.94
SO BUILDHGT  COOL3_15   14.94    14.94    14.94    14.94    14.94   14.94
SO BUILDHGT  COOL3_15   14.94    14.94    14.94    14.94    14.94   14.94
SO BUILDHGT  COOL3_15   14.94    14.94    14.94    14.94    14.94   14.94
SO BUILDHGT  COOL3_15   14.94    14.94    14.94    14.94    14.94   14.94
SO BUILDWID  COOL3_15   62.37    97.33    41.93    39.26    35.39   30.44
SO BUILDWID  COOL3_15   24.57    17.96   214.45   215.91   211.84  201.33
SO BUILDWID  COOL3_15  184.70   162.46   135.28   104.00    69.55   32.99
SO BUILDWID  COOL3_15   62.37    97.33   129.33   157.40   180.68  198.48
SO BUILDWID  COOL3_15  210.24   215.62   214.45   215.91   211.84  201.33
SO BUILDWID  COOL3_15  184.70   162.46   135.28   104.00    69.55   32.99
SO BUILDLEN  COOL3_15  215.91   211.84    29.34    34.48    38.57   41.50
SO BUILDLEN  COOL3_15   43.16    43.51    32.99    62.37    97.33  129.33
SO BUILDLEN  COOL3_15  157.40   180.68   198.48   210.24   215.62  214.45
SO BUILDLEN  COOL3_15  215.91   211.84   201.33   184.70   162.46  135.28
SO BUILDLEN  COOL3_15  104.00    69.55    32.99    62.37    97.33  129.33
SO BUILDLEN  COOL3_15  157.40   180.68   198.48   210.24   215.62  214.45
SO XBADJ     COOL3_15 -192.66  -188.56  -169.48  -172.48  -109.01 -114.84
SO XBADJ     COOL3_15 -117.18  -115.97   -26.84   -26.76   -29.59  -31.53
SO XBADJ     COOL3_15  -32.51   -32.50   -31.51   -29.55   -26.70  -23.04
SO XBADJ     COOL3_15  -23.26   -23.27   -22.59   -21.21   -19.19  -16.59
SO XBADJ     COOL3_15  -13.48    -9.97    -6.15   -35.62   -67.73  -97.79
SO XBADJ     COOL3_15 -124.88  -148.18  -166.97  -180.69  -188.92 -191.41
SO YBADJ     COOL3_15   -4.43   -19.07    16.02   -11.11    33.02   16.94
SO YBADJ     COOL3_15    0.34   -16.26   -84.18   -84.70   -82.64  -78.08
SO YBADJ     COOL3_15  -71.14   -62.04   -51.05   -38.51   -24.81  -10.35
SO YBADJ     COOL3_15    4.43    19.07    33.13    46.19    57.84   67.73
SO YBADJ     COOL3_15   75.57    81.11    84.18    84.70    82.64   78.08
SO YBADJ     COOL3_15   71.14    62.04    51.05    38.51    24.81   10.35


SO BUILDHGT  COOL3_16   14.94    14.94    31.39    31.39    31.39   31.39
SO BUILDHGT  COOL3_16   31.39    31.39    14.94    14.94    14.94   14.94
SO BUILDHGT  COOL3_16   14.94    14.94    14.94    14.94    14.94   14.94
SO BUILDHGT  COOL3_16   14.94    14.94    14.94    14.94    14.94   14.94
SO BUILDHGT  COOL3_16   14.94    14.94    14.94    14.94    14.94   14.94
SO BUILDHGT  COOL3_16   14.94    14.94    14.94    14.94    14.94   14.94
SO BUILDWID  COOL3_16   62.37    97.33    41.93    39.26    35.39   30.44
SO BUILDWID  COOL3_16   24.57    17.96   214.45   215.91   211.84  201.33
SO BUILDWID  COOL3_16  184.70   162.46   135.28   104.00    69.55   32.99
SO BUILDWID  COOL3_16   62.37    97.33   129.33   157.40   180.68  198.48
SO BUILDWID  COOL3_16  210.24   215.62   214.45   215.91   211.84  201.33
SO BUILDWID  COOL3_16  184.70   162.46   135.28   104.00    69.55   32.99
SO BUILDLEN  COOL3_16  215.91   211.84    29.34    34.48    38.57   41.50
SO BUILDLEN  COOL3_16   43.16    43.51    32.99    62.37    97.33  129.33
SO BUILDLEN  COOL3_16  157.40   180.68   198.48   210.24   215.62  214.45
SO BUILDLEN  COOL3_16  215.91   211.84   201.33   184.70   162.46  135.28
SO BUILDLEN  COOL3_16  104.00    69.55    32.99    62.37    97.33  129.33
SO BUILDLEN  COOL3_16  157.40   180.68   198.48   210.24   215.62  214.45
SO XBADJ     COOL3_16 -176.99  -173.48  -155.43  -159.91  -159.52 -106.30
SO XBADJ     COOL3_16 -111.08  -112.49   -26.09   -28.76   -34.29  -38.77
SO XBADJ     COOL3_16  -42.08   -44.11   -44.80   -44.13   -42.11  -38.82
SO XBADJ     COOL3_16  -38.93   -38.36   -36.63   -33.78   -29.91  -25.13
SO XBADJ     COOL3_16  -19.59   -13.45    -6.90   -33.61   -63.04  -90.55
SO XBADJ     COOL3_16 -115.32  -136.57  -153.68  -166.12  -173.51 -175.63
SO YBADJ     COOL3_16   -2.43   -14.38    23.26    -1.54   -26.29   30.23
SO YBADJ     COOL3_16   14.92    -0.85   -68.40   -69.03   -67.56  -64.04
SO YBADJ     COOL3_16  -58.57   -51.32   -42.51   -32.41   -21.33   -9.60
SO YBADJ     COOL3_16    2.43    14.38    25.89    36.62    46.23   54.44
SO YBADJ     COOL3_16   61.00    65.70    68.40    69.03    67.56   64.04
SO YBADJ     COOL3_16   58.57    51.32    42.51    32.41    21.33    9.60


SO BUILDHGT  COOL3_17   14.94    14.94    31.39    31.39    31.39   14.94
SO BUILDHGT  COOL3_17   14.94    14.94    14.94    14.94    14.94   14.94
SO BUILDHGT  COOL3_17   14.94    14.94    14.94    14.94    14.94   14.94
SO BUILDHGT  COOL3_17   14.94    14.94    14.94    14.94    14.94   14.94
SO BUILDHGT  COOL3_17   14.94    14.94    14.94    14.94    14.94   14.94
SO BUILDHGT  COOL3_17   14.94    14.94    14.94    14.94    14.94   14.94
SO BUILDWID  COOL3_17   62.37    97.33    41.93    39.26    35.39  198.48
SO BUILDWID  COOL3_17  210.24   215.62   214.45   215.91   211.84  201.33
SO BUILDWID  COOL3_17  184.70   162.46   135.28   104.00    69.55   32.99
SO BUILDWID  COOL3_17   62.37    97.33   129.33   157.40   180.68  198.48
SO BUILDWID  COOL3_17  210.24   215.62   214.45   215.91   211.84  201.33
SO BUILDWID  COOL3_17  184.70   162.46   135.28   104.00    69.55   32.99
SO BUILDLEN  COOL3_17  215.91   211.84    29.34    34.48    38.57  135.28
SO BUILDLEN  COOL3_17  104.00    69.55    32.99    62.37    97.33  129.33
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SO BUILDLEN COOL3_17  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_17  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_17  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_17  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_17 -159.22 -156.40 -139.55 -145.70 -147.42 -100.54
SO XBADJ    COOL3_17  -77.57  -52.24  -25.32  -31.11  -39.69  -47.06
SO XBADJ    COOL3_17  -53.00  -57.33  -59.92  -60.68  -59.61  -56.72
SO XBADJ    COOL3_17  -56.69  -55.44  -52.51  -47.99  -42.01  -34.75
SO XBADJ    COOL3_17  -26.43  -17.31   -7.67  -31.26  -57.64  -82.27
SO XBADJ    COOL3_17 -104.40 -123.36 -138.56 -149.56 -156.01 -157.73
SO YBADJ    COOL3_17   -0.08   -8.98   31.54    9.38  -13.07  -39.32
SO YBADJ    COOL3_17  -44.44  -48.20  -50.50  -51.27  -50.48  -48.15
SO YBADJ    COOL3_17  -44.36  -39.22  -32.90  -25.57  -17.46   -8.83
SO YBADJ    COOL3_17    0.08    8.98   17.61   25.70   33.01   39.32
SO YBADJ    COOL3_17   44.44   48.20   50.50   51.27   50.48   48.15
SO YBADJ    COOL3_17   44.36   39.22   32.90   25.57   17.46    8.83


SO BUILDHGT COOL3_18   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_18   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_18   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_18  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL3_18  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_18   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_18  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_18  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_18  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_18  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL3_18  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_18  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_18  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_18  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_18 -143.28 -141.04 -165.02 -132.91 -136.52 -135.98
SO XBADJ    COOL3_18  -71.36  -48.70  -24.56 -111.07 -110.00 -105.58
SO XBADJ    COOL3_18  -62.74  -69.14  -73.44  -75.52  -75.29  -72.78
SO XBADJ    COOL3_18  -72.64  -70.79  -66.80  -60.78  -52.91  -43.43
SO XBADJ    COOL3_18  -32.64  -20.85   -8.43  -29.22  -52.86  -74.90
SO XBADJ    COOL3_18  -94.66 -111.54 -125.03 -134.73 -140.33 -141.67
SO YBADJ    COOL3_18    1.96   -4.20   16.97   19.12   -1.26  -21.60
SO YBADJ    COOL3_18  -29.61  -32.52  -34.44    1.88  -13.67  -28.80
SO YBADJ    COOL3_18  -31.57  -28.32  -24.21  -19.36  -13.92   -8.07
SO YBADJ    COOL3_18   -1.96    4.20   10.24   15.96   21.20   25.80
SO YBADJ    COOL3_18   29.61   32.52   34.44   35.32   35.12   33.86
SO YBADJ    COOL3_18   31.57   28.32   24.21   19.36   13.92    8.07


SO BUILDHGT COOL3_19   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_19   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_19   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_19   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_19  210.24  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL3_19   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_19   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_19  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_19  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_19  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_19  104.00   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL3_19   39.26  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_19  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_19  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_19  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_19 -126.18 -124.60 -149.72 -119.22 -124.86 -126.70
SO XBADJ    COOL3_19  -64.75  -44.95  -23.79  -35.38 -115.16 -113.52
SO XBADJ    COOL3_19 -108.43  -81.84  -87.97  -91.43  -92.12  -90.00
SO XBADJ    COOL3_19  -89.73  -87.24  -82.10  -74.47  -64.57  -52.71
SO XBADJ    COOL3_19  -39.25  -24.60   -9.20  -26.99  -47.70  -66.96
SO XBADJ    COOL3_19  -84.18  -98.84 -110.51 -118.81 -123.51 -124.45
SO YBADJ    COOL3_19    4.19    0.97   24.91   29.60   11.44   -7.07
SO YBADJ    COOL3_19  -13.69  -15.69  -17.22  -18.23    2.78  -13.50
SO YBADJ    COOL3_19  -29.37  -16.66  -14.93  -12.75  -10.18   -7.30
SO YBADJ    COOL3_19   -4.19   -0.97    2.29    5.48    8.50   11.27
SO YBADJ    COOL3_19   13.69   15.69   17.22   18.23   18.68   18.56
SO YBADJ    COOL3_19   17.88   16.66   14.93   12.75   10.18    7.30


SO BUILDHGT COOL3_20   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_20   31.39   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_20   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_20   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_20   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_20   14.94   14.94   14.94   14.94   14.94   14.94
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SO BUILDWID COOL3_20   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_20   24.57  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL3_20   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_20   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_20  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_20  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_20  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_20   43.16   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL3_20   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_20  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_20  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_20  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_20 -110.33 -109.51 -135.85 -142.34 -114.65 -118.82
SO XBADJ    COOL3_20 -119.38  -42.37  -24.01  -38.40 -120.89 -121.78
SO XBADJ    COOL3_20 -118.98 -112.56 -102.06 -106.68 -108.05 -106.14
SO XBADJ    COOL3_20 -105.58 -102.33  -95.97  -86.69  -74.78  -60.59
SO XBADJ    COOL3_20  -44.57  -27.18   -8.98  -23.97  -41.97  -58.70
SO XBADJ    COOL3_20  -73.64  -86.34  -96.42 -103.57 -107.57 -108.31
SO YBADJ    COOL3_20    7.21    6.69   33.17   11.62   23.94    7.02
SO YBADJ    COOL3_20  -10.12    0.24   -1.08   -2.37   17.87    0.37
SO YBADJ    COOL3_20  -17.15  -34.14   -7.05   -7.43   -7.59   -7.52
SO YBADJ    COOL3_20   -7.21   -6.69   -5.97   -5.06   -4.00   -2.82
SO YBADJ    COOL3_20   -1.55   -0.24    1.08    2.37    3.59    4.70
SO YBADJ    COOL3_20    5.66    6.45    7.05    7.43    7.59    7.52


SO BUILDHGT COOL3_21   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_21   31.39   31.39   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_21   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_21   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_21   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_21   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_21   62.37   97.33  129.33   39.26   35.39   30.44
SO BUILDWID COOL3_21   24.57   17.96  214.45  215.91  211.84   29.34
SO BUILDWID COOL3_21   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_21   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_21  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_21  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_21  215.91  211.84  201.33   34.48   38.57   41.50
SO BUILDLEN COOL3_21   43.16   43.51   32.99   62.37   97.33   41.93
SO BUILDLEN COOL3_21   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_21  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_21  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_21  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_21  -94.56  -94.41  -91.40 -129.94 -134.04 -134.06
SO XBADJ    COOL3_21 -113.66 -113.27  -23.73  -40.90  -60.55 -129.52
SO XBADJ    COOL3_21 -129.02 -124.60 -115.74 -121.58 -123.72 -122.10
SO XBADJ    COOL3_21 -121.35 -117.42 -109.93  -99.09  -85.25  -68.81
SO XBADJ    COOL3_21  -50.29  -30.23   -9.26  -21.48  -36.78  -50.96
SO XBADJ    COOL3_21  -63.59  -74.29  -82.74  -88.67  -91.90  -92.35
SO YBADJ    COOL3_21    9.71   11.89   13.71   21.67    1.77  -18.18
SO YBADJ    COOL3_21    4.78  -11.28   14.88   13.39   11.50   14.33
SO YBADJ    COOL3_21   -4.74  -23.66    1.17   -1.71   -4.54   -7.24
SO YBADJ    COOL3_21   -9.71  -11.89  -13.71  -15.11  -16.05  -16.50
SO YBADJ    COOL3_21  -16.45  -15.91  -14.88  -13.39  -11.50   -9.27
SO YBADJ    COOL3_21   -6.74   -4.02   -1.17    1.71    4.54    7.24


SO BUILDHGT COOL3_22   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_22   31.39   31.39   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_22   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL3_22   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_22   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_22   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_22   62.37   97.33  129.33   39.26   35.39   30.44
SO BUILDWID COOL3_22   24.57   17.96  214.45  215.91  211.84   29.34
SO BUILDWID COOL3_22   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL3_22   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_22  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_22  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_22  215.91  211.84  201.33   34.48   38.57   41.50
SO BUILDLEN COOL3_22   43.16   43.51   32.99   62.37   97.33   41.93
SO BUILDLEN COOL3_22   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL3_22  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_22  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_22  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_22  -78.80  -79.32  -77.44 -117.53 -123.56 -125.84
SO XBADJ    COOL3_22 -124.29 -110.22  -23.45  -43.39  -65.75 -137.26
SO XBADJ    COOL3_22 -139.07 -136.65 -130.08 -136.48 -139.39 -138.06
SO XBADJ    COOL3_22 -137.12 -132.52 -123.89 -111.50  -95.72  -77.04
SO XBADJ    COOL3_22  -56.01  -33.28   -9.54  -18.98  -31.58  -43.22
SO XBADJ    COOL3_22  -53.55  -62.25  -69.06  -73.77  -76.23  -76.39
SO YBADJ    COOL3_22   12.21   17.08   21.44   31.71   13.82   -4.50
SO YBADJ    COOL3_22  -22.68    4.39   30.84   29.16   26.60   28.29
SO YBADJ    COOL3_22    7.67  -13.19  -33.65    4.01   -1.50   -6.96
SO YBADJ    COOL3_22  -12.21  -17.08  -21.44  -25.15  -28.09  -30.18
SO YBADJ    COOL3_22  -31.36  -31.58  -30.84  -29.16  -26.60  -23.23
SO YBADJ    COOL3_22  -19.15  -14.49   -9.39   -4.01    1.50    6.96
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SO BUILDHGT COOL3_23    14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL3_23    31.39    14.94    31.39    31.39    14.94    14.94
SO BUILDHGT COOL3_23    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL3_23    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_23    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_23    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_23    62.37    97.33   129.33   157.40    35.39    30.44
SO BUILDWID COOL3_23    24.57   215.62    10.80    16.56   211.84   201.33
SO BUILDWID COOL3_23    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL3_23    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL3_23   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_23   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_23   215.91   211.84   201.33   184.70    38.57    41.50
SO BUILDLEN COOL3_23    43.16    69.55    42.54    43.42    97.33   129.33
SO BUILDLEN COOL3_23    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL3_23   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL3_23   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_23   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_23   -61.10   -62.26   -61.54   -58.94  -111.38  -116.10
SO XBADJ    COOL3_23  -117.29   -32.23  -108.18  -108.48   -70.92   -94.17
SO XBADJ    COOL3_23  -149.76  -149.66  -145.01  -152.87  -156.75  -155.86
SO XBADJ    COOL3_23  -154.81  -149.58  -139.79  -125.76  -107.91   -86.78
SO XBADJ    COOL3_23   -63.01   -37.33   -10.51   -16.85   -26.40   -35.16
SO XBADJ    COOL3_23   -42.85   -49.24   -54.13   -57.37   -58.87   -58.59
SO YBADJ    COOL3_23    14.34    22.26    29.50    35.85    26.83    10.43
SO YBADJ    COOL3_23    -6.29    48.94     6.76    -8.43    43.66    39.13
SO YBADJ    COOL3_23    21.92    -1.01   -23.91    11.01     2.55    -5.99
SO YBADJ    COOL3_23   -14.34   -22.26   -29.50   -35.85   -41.11   -45.11
SO YBADJ    COOL3_23   -47.75   -48.94   -48.64   -46.86   -43.66   -39.13
SO YBADJ    COOL3_23   -33.41   -26.68   -19.13   -11.01    -2.55     5.99

SO BUILDHGT COOL3_24    14.94    14.94    14.94    14.94    14.94    31.39
SO BUILDHGT COOL3_24    31.39    31.39    14.94    31.39    31.39    31.39
SO BUILDHGT COOL3_24    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL3_24    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_24    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_24    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_24    62.37    97.33   129.33   157.40   180.68    30.44
SO BUILDWID COOL3_24    24.57    17.96   214.45    16.56    23.30    29.34
SO BUILDWID COOL3_24    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL3_24    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL3_24   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_24   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_24   215.91   211.84   201.33   184.70   162.46    41.50
SO BUILDLEN COOL3_24    43.16    43.51    32.99    43.42    43.33    41.93
SO BUILDLEN COOL3_24    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL3_24   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL3_24   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_24   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_24   -46.92   -48.90   -49.40   -48.40   -45.93  -109.65
SO XBADJ    COOL3_24  -113.22  -113.35   -23.45  -111.96  -111.55  -107.74
SO XBADJ    COOL3_24  -159.87  -161.44  -158.11  -166.90  -171.27  -170.43
SO XBADJ    COOL3_24  -168.99  -162.94  -151.92  -136.30  -116.53   -93.22
SO XBADJ    COOL3_24   -67.08   -38.90    -9.54   -13.36   -20.51   -27.04
SO XBADJ    COOL3_24   -32.74   -37.45   -41.02   -43.35   -44.36   -44.02
SO YBADJ    COOL3_24    17.83    28.16    37.63    45.96    52.89    23.53
SO YBADJ    COOL3_24     7.74    -8.30    63.21     5.75   -10.01   -25.47
SO YBADJ    COOL3_24    32.46     7.62   -17.46    15.08     4.12    -6.96
SO YBADJ    COOL3_24   -17.83   -28.16   -37.63   -45.96   -52.89   -58.22
SO YBADJ    COOL3_24   -61.77   -63.45   -63.21   -61.04   -57.02   -51.26
SO YBADJ    COOL3_24   -43.95   -35.30   -25.58   -15.08    -4.12     6.96

SO BUILDHGT COOL3_25    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_25    31.39    31.39    31.39    14.94    31.39    31.39
SO BUILDHGT COOL3_25    31.39    31.39    31.39    31.39    14.94    14.94
SO BUILDHGT COOL3_25    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_25    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_25    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_25    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL3_25    24.57    17.96    10.80   215.91    23.30    29.34
SO BUILDWID COOL3_25    34.48    38.57    41.50    43.16    69.55    32.99
SO BUILDWID COOL3_25    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL3_25   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_25   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_25   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL3_25    43.16    43.51    42.54    62.37    43.33    41.93
SO BUILDLEN COOL3_25    39.26    35.39    30.44    24.57   215.62   214.45
SO BUILDLEN COOL3_25   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL3_25   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_25   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_25   -30.59   -33.24   -34.88   -35.46   -34.96   -33.40
SO XBADJ    COOL3_25  -107.13  -110.01  -109.55   -51.40  -116.73  -115.57
SO XBADJ    COOL3_25  -110.89  -173.77  -172.15  -165.31  -187.42  -186.92
SO XBADJ    COOL3_25  -185.32  -178.59  -166.45  -149.24  -127.50  -101.88
SO XBADJ    COOL3_25   -73.17   -42.24   -10.02   -10.97   -15.32   -19.21
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SO XBADJ    COOL3_25  -22.51  -25.13  -26.98  -28.02  -28.20  -27.53
SO YBADJ    COOL3_25   20.22   33.34   45.46   56.19   65.21   72.26
SO YBADJ    COOL3_25   23.07    7.86   -7.58   77.36    5.65  -10.95
SO YBADJ    COOL3_25  -27.21   18.58   -8.80  -35.92    7.46   -6.48
SO YBADJ    COOL3_25  -20.22  -33.34  -45.46  -56.19  -65.21  -72.26
SO YBADJ    COOL3_25  -77.11  -79.61  -79.70  -77.36  -72.68  -65.78
SO YBADJ    COOL3_25  -56.89  -46.27  -34.24  -21.17   -7.46    6.48


SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_26   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_26   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_26   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_26  210.24  215.62   10.80   16.56   23.30   29.34
SO BUILDWID COOL3_26   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_26   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_26  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_26  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_26  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_26  104.00   69.55   42.54   43.42   43.33   41.93
SO BUILDLEN COOL3_26   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_26  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_26  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_26  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_26  -12.64  -15.86  -18.59  -20.76  -22.29  -23.15
SO XBADJ    COOL3_26  -23.31  -22.76 -108.09 -109.02 -121.51 -123.29
SO XBADJ    COOL3_26 -121.33 -115.68 -186.33 -198.61 -204.87 -204.89
SO XBADJ    COOL3_26 -203.27 -195.98 -182.74 -163.94 -140.17 -112.13
SO XBADJ    COOL3_26  -80.69  -46.79  -11.48   -9.29  -10.55  -11.49
SO XBADJ    COOL3_26  -12.08  -12.30  -12.15  -11.63  -10.76   -9.56
SO YBADJ    COOL3_26   21.90   38.12   53.18   66.62   78.04   87.09
SO YBADJ    COOL3_26   93.49   97.05   10.39   -4.85   23.03    5.35
SO YBADJ    COOL3_26  -12.50  -29.97   44.49   28.69   12.02   -5.02
SO YBADJ    COOL3_26  -21.90  -38.12  -53.18  -66.62  -78.04  -87.09
SO YBADJ    COOL3_26  -93.49  -97.05  -97.67  -95.31  -90.06  -82.07
SO YBADJ    COOL3_26  -71.59  -58.94  -44.49  -28.69  -12.02    5.02

SO BUILDHGT FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3    0.00    0.00    0.00    0.00    0.00   26.82
SO BUILDHGT FULHEAT3   26.82   26.82   31.39   31.39   31.39   31.39
SO BUILDHGT FULHEAT3   31.39    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3    0.00    0.00    0.00    0.00    0.00   25.00
SO BUILDWID FULHEAT3   26.64   27.47   41.50   43.16   43.51   42.54
SO BUILDWID FULHEAT3   43.42    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3    0.00    0.00    0.00    0.00    0.00   27.46
SO BUILDLEN FULHEAT3   27.47   26.64   30.44   24.57   17.96   10.80
SO BUILDLEN FULHEAT3   16.56    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00 -146.49
SO XBADJ    FULHEAT3 -147.95 -144.92 -102.79 -104.28 -102.60 -143.85
SO XBADJ    FULHEAT3  -96.66    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00   20.00
SO YBADJ    FULHEAT3   -3.36  -26.61   33.12   17.41    1.18  -14.66
SO YBADJ    FULHEAT3  -30.92    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00

   SRCGROUP CTS 03A7595 03B7595 03C7595
   SRCGROUP COOL COOL3_01-COOL3_26 FULHEAT3
   SRCGROUP ALL
SO FINISHED
**
*****************************************
** ISCST3 Receptor Pathway
*****************************************
**
**
RE STARTING
   INCLUDED wc3A.rou
RE FINISHED
**
*****************************************
** AERMOD Meteorology Pathway
*****************************************
```

```
**
**
ME STARTING
   SURFFILE C:\amodmet\PBIMIA01.SFC
   PROFFILE C:\amodmet\PBIMIA01.PFL
   SURFDATA 12844 2001 WEST_PALM_BEACH/INT'L_ARPT
   UAIRDATA 92803 2001 MIAMI/FIU
   PROFBASE 19 FEET
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE FIRST
   PLOTFILE 24 ALL FIRST pmsig24.p01
   PLOTFILE PERIOD ALL  pmsigAN.p01
OU FINISHED
**
```

AERBOB RELEASE 020304

AERMOD OUTPUT FILE NUMBER 1 :pmsig.o01
AERMOD OUTPUT FILE NUMBER 2 :pmsig.o02
AERMOD OUTPUT FILE NUMBER 3 :pmsig.o03
AERMOD OUTPUT FILE NUMBER 4 :pmsig.o04
AERMOD OUTPUT FILE NUMBER 5 :pmsig.o05
First title for last output file is: 2001 FPL WEST COUNTY UNIT 3 - PM10 SIG ANALYSIS, OIL 11/7/07
Second title for last output file is: PM10 IMPACTS, CT/HRSGs AND COOLING TOWERS

AVERAGING TIME	YEAR	CONC (ug/m3)	X (m)	Y (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	CTS				
Annual					
	2001	0.578	561450.	2952600.	01123124
	2002	0.530	561650.	2953100.	02123124
	2003	0.501	561650.	2953100.	03123124
	2004	0.553	561450.	2952600.	04123124
	2005	0.452	561450.	2952700.	05123124
HIGH 24-Hour					
	2001	6.795	561450.	2952500.	01110124
	2002	3.846	561750.	2953400.	02123124
	2003	4.333	561350.	2952500.	03120324
	2004	6.119	562337.	2953292.	04090524
	2005	6.156	561450.	2952500.	05120724
SOURCE GROUP ID:	COOL				
Annual					
	2001	0.278	562326.	2952704.	01123124
	2002	0.277	562325.	2952655.	02123124
	2003	0.299	562325.	2952655.	03123124
	2004	0.281	562326.	2952704.	04123124
	2005	0.307	562325.	2952655.	05123124
HIGH 24-Hour					
	2001	1.815	562350.	2952600.	01122624
	2002	1.601	562324.	2952606.	02112724
	2003	1.806	562324.	2952606.	03012424
	2004	1.951	562328.	2952802.	04092624
	2005	1.993	562350.	2952600.	05122124
SOURCE GROUP ID:	ALL				
Annual					
	2001	0.635	561550.	2952600.	01123124
	2002	0.628	561650.	2953000.	02123124
	2003	0.593	561750.	2953100.	03123124
	2004	0.610	561450.	2952600.	04123124
	2005	0.522	561550.	2952700.	05123124
HIGH 24-Hour					
	2001	6.996	561450.	2952500.	01110124
	2002	4.057	561750.	2953400.	02123124
	2003	4.476	561350.	2952500.	03120324
	2004	6.359	562336.	2953243.	04090524
	2005	6.368	561450.	2952500.	05120724

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

```
CO STARTING
   TITLEONE 2001 FPL WEST COUNTY UNIT 3 - NO2 SIG ANALYSIS, OIL 11/6/07
   TITLETWO NO2 IMPACTS, CT/HRSGs AND FUEL HEATERS
   MODELOPT DFAULT CONC NOWARN
   AVERTIME PERIOD
   POLLUTID NO2
   RUNORNOT RUN
CO FINISHED
**
*****************************************
** ISCST3 Source Pathway
*****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION G3A1059 POINT 562202.790 2952748.590 4.000
   LOCATION G3B1059 POINT 562201.600 2952654.460 4.000
   LOCATION G3C1059 POINT 562200.640 2952609.610 4.000
   LOCATION GD3A1059 POINT 562202.790 2952748.590 4.000
   LOCATION GD3B1059 POINT 562201.600 2952654.460 4.000
   LOCATION GD3C1059 POINT 562200.640 2952609.610 4.000
   LOCATION O3A1059 POINT 562202.790 2952748.590 4.000
   LOCATION O3B1059 POINT 562201.600 2952654.460 4.000
   LOCATION O3C1059 POINT 562200.640 2952609.610 4.000
   LOCATION FULHEAT3   POINT  562195.690 2952917.930 4.000
** Source Parameters **
** 100% Load, 59 F, Emissions based on 327 TPY NOX total ER
** 100% Load, 59 F, Gas firing without duct burning = 5380 hr/yr
**  = 20.48 lb/hr * 5380/8760hrs/yr = 12.58 lb/hr = 1.585 g/s
   SRCPARAM G3A1059  1.585  45.4  363.7   18.17  6.71
   SRCPARAM G3B1059  1.585  45.4  363.7   18.17  6.71
   SRCPARAM G3C1059  1.585  45.4  363.7   18.17  6.71
** 100% Load, 59 F, Gas firing with duct burning = 2280 hr/yr
**  = 24.3 lb/hr * 2880/8760hrs/yr = 7.99 lb/hr = 1.007 g/s
   SRCPARAM GD3A1059  1.007  45.4  357.9   18.01  6.71
   SRCPARAM GD3B1059  1.007  45.4  357.9   18.01  6.71
   SRCPARAM GD3C1059  1.007  45.4  357.9   18.01  6.71
** 100% Load, 59 F, Oil firing = 500 hr/yr
**  = 75.2 lb/hr * 500/8760hrs/yr = 4.29 lb/hr = 0.541 g/s
   SRCPARAM O3A1059  0.541  45.4  453.7   22.54  6.71
   SRCPARAM O3B1059  0.541  45.4  453.7   22.54  6.71
   SRCPARAM O3C1059  0.541  45.4  453.7   22.54  6.71
   SRCPARAM FULHEAT3 0.12   9.14  533.2   16.15  0.305

** Building Downwash **
SO BUILDHGT G3A1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID G3A1059     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3A1059     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3A1059     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID G3A1059     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3A1059     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3A1059     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN G3A1059     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3A1059     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3A1059     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN G3A1059     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3A1059     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3A1059     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    G3A1059   -105.97  -109.86  -110.42   -35.01   -40.32   -44.41
SO XBADJ    G3A1059    -47.15   -48.46   -48.29   -48.24   -46.89   -44.11
SO XBADJ    G3A1059    -40.00   -34.67   -28.29   -21.05   -13.17    -4.88
SO XBADJ    G3A1059     -3.08    -1.92    -0.71     0.53     1.75     2.92
SO XBADJ    G3A1059      3.99     4.95     5.76     4.82     3.55     2.18
SO XBADJ    G3A1059      0.74    -0.72    -2.15    -3.53    -4.79  -145.00
SO YBADJ    G3A1059     11.56    -5.58   -22.55    20.37    16.98    13.07
SO YBADJ    G3A1059      8.76     4.19    -0.51    -5.20    -9.73   -13.96
SO YBADJ    G3A1059    -17.77   -21.03   -23.66   -25.57   -26.71   -27.03
SO YBADJ    G3A1059    -26.53   -25.22   -23.15   -20.37   -16.98   -13.07
SO YBADJ    G3A1059     -8.76    -4.19     0.51     5.20     9.73    13.96
SO YBADJ    G3A1059     17.77    21.03    23.66    25.57    26.71    29.22


SO BUILDHGT G3B1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID G3B1059     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3B1059     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3B1059     34.48    38.57    41.50    43.16    43.51    42.54
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SO BUILDWID G3B1059    43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3B1059    24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3B1059    34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN G3B1059    16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3B1059    43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3B1059    39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN G3B1059    16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3B1059    43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3B1059    39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    G3B1059   -13.06   -21.00   -28.30   -34.75   -40.13   -67.76
SO XBADJ    G3B1059   -47.12   -48.51   -48.42   -48.44   -47.16   -44.45
SO XBADJ    G3B1059   -40.38   -35.09  -109.21  -109.09  -105.66    40.08
SO XBADJ    G3B1059    -3.50    -2.30    -1.03     0.27     1.56    26.26
SO XBADJ    G3B1059     3.96     5.00     5.89     5.02     3.83     2.52
SO XBADJ    G3B1059     1.13    -0.29    -1.70    -3.06   -48.90   -50.87
SO YBADJ    G3B1059    26.73    25.49    23.48    20.76    17.40   -25.37
SO YBADJ    G3B1059     9.22     4.65    -0.07    -4.78    -9.35   -13.64
SO YBADJ    G3B1059   -17.51   -20.84    24.43     7.74    -9.19   -28.03
SO YBADJ    G3B1059   -26.73   -25.49   -23.48   -20.76   -17.40    25.37
SO YBADJ    G3B1059    -9.22    -4.65     0.07     4.78     9.35    13.64
SO YBADJ    G3B1059    17.51    20.84    23.55    25.54    35.50    28.03


SO BUILDHGT G3C1059    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3C1059    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3C1059    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3C1059    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3C1059    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3C1059    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID G3C1059    43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3C1059    24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3C1059    34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID G3C1059    43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3C1059    24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3C1059    34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN G3C1059    16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3C1059    43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3C1059    39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN G3C1059    16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3C1059    43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3C1059    39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    G3C1059    31.27   -21.50   -28.74   -35.12   -40.43   -44.50
SO XBADJ    G3C1059   -47.23   -48.52   -48.34   -48.26   -46.89   -66.04
SO XBADJ    G3C1059   -39.96   -34.62   -28.22   -20.96  -149.66    -4.77
SO XBADJ    G3C1059   -47.83    -1.81    -0.59     0.64     1.85     3.01
SO XBADJ    G3C1059     4.07     5.01     5.80     4.84     3.56    24.11
SO XBADJ    G3C1059     0.71    -0.77    -2.23    -3.61    -4.89    -6.02
SO YBADJ    G3C1059    33.57    25.23    23.13    20.34    16.92    12.99
SO YBADJ    G3C1059     8.67     4.09    -0.62    -5.32    -9.85    25.69
SO YBADJ    G3C1059   -17.88   -21.14   -23.76   -25.65    -0.45   -27.07
SO YBADJ    G3C1059   -33.57   -25.23   -23.13   -20.34   -16.92   -12.99
SO YBADJ    G3C1059    -8.67    -4.09     0.62     5.32     9.85   -25.69
SO YBADJ    G3C1059    17.88    21.14    23.76    25.65    26.77    27.07

SO BUILDHGT GD3A1059    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT GD3A1059    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT GD3A1059    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT GD3A1059    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT GD3A1059    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT GD3A1059    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID GD3A1059    43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID GD3A1059    24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID GD3A1059    34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID GD3A1059    43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID GD3A1059    24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID GD3A1059    34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN GD3A1059    16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN GD3A1059    43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN GD3A1059    39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN GD3A1059    16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN GD3A1059    43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN GD3A1059    39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    GD3A1059  -105.97  -109.86  -110.42   -35.01   -40.32   -44.41
SO XBADJ    GD3A1059   -47.15   -48.46   -48.29   -48.24   -46.89   -44.11
SO XBADJ    GD3A1059   -40.00   -34.67   -28.29   -21.05   -13.17    -4.88
SO XBADJ    GD3A1059    -3.08    -1.92    -0.71     0.53     1.75     2.92
SO XBADJ    GD3A1059     3.99     4.95     5.76     4.82     3.55     2.18
SO XBADJ    GD3A1059     0.74    -0.72    -2.15    -3.53    -4.79  -145.00
SO YBADJ    GD3A1059    11.56    -5.58   -22.55    20.37    16.98    13.07
SO YBADJ    GD3A1059     8.76     4.19    -0.51    -5.20    -9.73   -13.96
SO YBADJ    GD3A1059   -17.77   -21.03   -23.66   -25.57   -26.71   -27.03
SO YBADJ    GD3A1059   -26.53   -25.22   -23.15   -20.37   -16.98   -13.07
SO YBADJ    GD3A1059    -8.76    -4.19     0.51     5.20     9.73    13.96
SO YBADJ    GD3A1059    17.77    21.03    23.66    25.57    26.71    29.22


SO BUILDHGT GD3B1059    31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT GD3B1059    31.39    31.39    31.39    31.39    31.39    31.39
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SO BUILDHGT GD3B1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT GD3B1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT GD3B1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT GD3B1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID GD3B1059     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID GD3B1059     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID GD3B1059     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID GD3B1059     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID GD3B1059     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID GD3B1059     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN GD3B1059     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN GD3B1059     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN GD3B1059     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN GD3B1059     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN GD3B1059     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN GD3B1059     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    GD3B1059    -13.06   -21.00   -28.30   -34.75   -40.13   -67.76
SO XBADJ    GD3B1059    -47.12   -48.51   -48.42   -48.44   -47.16   -44.45
SO XBADJ    GD3B1059    -40.38   -35.09  -109.21  -109.09  -105.66    40.08
SO XBADJ    GD3B1059     -3.50    -2.30    -1.03     0.27     1.56    26.26
SO XBADJ    GD3B1059      3.96     5.00     5.89     5.02     3.83     2.52
SO XBADJ    GD3B1059      1.13    -0.29    -1.70    -3.06   -48.90   -50.87
SO YBADJ    GD3B1059     26.73    25.49    23.48    20.76    17.40   -25.37
SO YBADJ    GD3B1059      9.22     4.65    -0.07    -4.78    -9.35   -13.64
SO YBADJ    GD3B1059    -17.51   -20.84    24.43     7.74    -9.19   -28.03
SO YBADJ    GD3B1059    -26.73   -25.49   -23.48   -20.76   -17.40    25.37
SO YBADJ    GD3B1059     -9.22    -4.65     0.07     4.78     9.35    13.64
SO YBADJ    GD3B1059     17.51    20.84    23.55    25.54    35.50    28.03


SO BUILDHGT GD3C1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT GD3C1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT GD3C1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT GD3C1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT GD3C1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT GD3C1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID GD3C1059     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID GD3C1059     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID GD3C1059     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID GD3C1059     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID GD3C1059     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID GD3C1059     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN GD3C1059     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN GD3C1059     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN GD3C1059     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN GD3C1059     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN GD3C1059     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN GD3C1059     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    GD3C1059     31.27   -21.50   -28.74   -35.12   -40.43   -44.50
SO XBADJ    GD3C1059    -47.23   -48.52   -48.34   -48.26   -46.89   -66.04
SO XBADJ    GD3C1059    -39.96   -34.62   -28.22   -20.96  -149.66    -4.77
SO XBADJ    GD3C1059    -47.83    -1.81    -0.59     0.64     1.85     3.01
SO XBADJ    GD3C1059      4.07     5.01     5.80     4.84     3.56    24.11
SO XBADJ    GD3C1059      0.71    -0.77    -2.23    -3.61    -4.89    -6.02
SO YBADJ    GD3C1059     33.57    25.23    23.13    20.34    16.92    12.99
SO YBADJ    GD3C1059      8.67     4.09    -0.62    -5.32    -9.85    25.69
SO YBADJ    GD3C1059    -17.88   -21.14   -23.76   -25.65    -0.45   -27.07
SO YBADJ    GD3C1059    -33.57   -25.23   -23.13   -20.34   -16.92   -12.99
SO YBADJ    GD3C1059     -8.67    -4.09     0.62     5.32     9.85   -25.69
SO YBADJ    GD3C1059     17.88    21.14    23.76    25.65    26.77    27.07

SO BUILDHGT O3A1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3A1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3A1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3A1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3A1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3A1059     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID O3A1059     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID O3A1059     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID O3A1059     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID O3A1059     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID O3A1059     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID O3A1059     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN O3A1059     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN O3A1059     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN O3A1059     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN O3A1059     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN O3A1059     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN O3A1059     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    O3A1059   -105.97  -109.86  -110.42   -35.01   -40.32   -44.41
SO XBADJ    O3A1059    -47.15   -48.46   -48.29   -48.24   -46.89   -44.11
SO XBADJ    O3A1059    -40.00   -34.67   -28.29   -21.05   -13.17    -4.88
SO XBADJ    O3A1059     -3.08    -1.92    -0.71     0.53     1.75     2.92
SO XBADJ    O3A1059      3.99     4.95     5.76     4.82     3.55     2.18
SO XBADJ    O3A1059      0.74    -0.72    -2.15    -3.53    -4.79  -145.00
SO YBADJ    O3A1059     11.56    -5.58   -22.55    20.37    16.98    13.07
SO YBADJ    O3A1059      8.76     4.19    -0.51    -5.20    -9.73   -13.96
SO YBADJ    O3A1059    -17.77   -21.03   -23.66   -25.57   -26.71   -27.03
```

```
SO YBADJ    03A1059    -26.53  -25.22  -23.15  -20.37  -16.98  -13.07
SO YBADJ    03A1059     -8.76   -4.19    0.51    5.20    9.73   13.96
SO YBADJ    03A1059     17.77   21.03   23.66   25.57   26.71   29.22

SO BUILDHGT 03B1059     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03B1059     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03B1059     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03B1059     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03B1059     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03B1059     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID 03B1059     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID 03B1059     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID 03B1059     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID 03B1059     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID 03B1059     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID 03B1059     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN 03B1059     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN 03B1059     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN 03B1059     39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN 03B1059     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN 03B1059     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN 03B1059     39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    03B1059    -13.06  -21.00  -28.30  -34.75  -40.13  -67.76
SO XBADJ    03B1059    -47.12  -48.51  -48.42  -48.44  -47.16  -44.45
SO XBADJ    03B1059    -40.38  -35.09 -109.21 -109.09 -105.66   40.08
SO XBADJ    03B1059     -3.50   -2.30   -1.03    0.27    1.56   26.26
SO XBADJ    03B1059      3.96    5.00    5.89    5.02    3.83    2.52
SO XBADJ    03B1059      1.13   -0.29   -1.70   -3.06  -48.90  -50.87
SO YBADJ    03B1059     26.73   25.49   23.48   20.76   17.40  -25.37
SO YBADJ    03B1059      9.22    4.65   -0.07   -4.78   -9.35  -13.64
SO YBADJ    03B1059    -17.51  -20.84   24.43    7.74   -9.19  -28.03
SO YBADJ    03B1059    -26.73  -25.49  -23.48  -20.76  -17.40   25.37
SO YBADJ    03B1059     -9.22   -4.65    0.07    4.78    9.35   13.64
SO YBADJ    03B1059     17.51   20.84   23.55   25.54   35.50   28.03

SO BUILDHGT 03C1059     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03C1059     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03C1059     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03C1059     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03C1059     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03C1059     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID 03C1059     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID 03C1059     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID 03C1059     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID 03C1059     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID 03C1059     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID 03C1059     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN 03C1059     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN 03C1059     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN 03C1059     39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN 03C1059     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN 03C1059     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN 03C1059     39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    03C1059     31.27  -21.50  -28.74  -35.12  -40.43  -44.50
SO XBADJ    03C1059    -47.23  -48.52  -48.34  -48.26  -46.89  -66.04
SO XBADJ    03C1059    -39.96  -34.62  -28.22  -20.96 -149.66   -4.77
SO XBADJ    03C1059    -47.83   -1.81   -0.59    0.64    1.85    3.01
SO XBADJ    03C1059      4.07    5.01    5.80    4.84    3.56   24.11
SO XBADJ    03C1059      0.71   -0.77   -2.23   -3.61   -4.89   -6.02
SO YBADJ    03C1059     33.57   25.23   23.13   20.34   16.92   12.99
SO YBADJ    03C1059      8.67    4.09   -0.62   -5.32   -9.85   25.69
SO YBADJ    03C1059    -17.88  -21.14  -23.76  -25.65   -0.45  -27.07
SO YBADJ    03C1059    -33.57  -25.23  -23.13  -20.34  -16.92  -12.99
SO YBADJ    03C1059     -8.67   -4.09    0.62    5.32    9.85  -25.69
SO YBADJ    03C1059     17.88   21.14   23.76   25.65   26.77   27.07

SO BUILDHGT FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3     0.00    0.00    0.00    0.00    0.00   26.82
SO BUILDHGT FULHEAT3    26.82   26.82   31.39   31.39   31.39   31.39
SO BUILDHGT FULHEAT3    31.39    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3     0.00    0.00    0.00    0.00    0.00   25.00
SO BUILDWID FULHEAT3    26.64   27.47   41.50   43.16   43.51   42.54
SO BUILDWID FULHEAT3    43.42    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3     0.00    0.00    0.00    0.00    0.00   27.46
SO BUILDLEN FULHEAT3    27.47   26.64   30.44   24.57   17.96   10.80
SO BUILDLEN FULHEAT3    16.56    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3     0.00    0.00    0.00    0.00    0.00 -146.49
```

```
SO XBADJ     FULHEAT3 -147.95 -144.92 -102.79 -104.28 -102.60 -143.85
SO XBADJ     FULHEAT3  -96.66    0.00    0.00    0.00    0.00    0.00
SO XBADJ     FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ     FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ     FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ     FULHEAT3    0.00    0.00    0.00    0.00    0.00   20.00
SO YBADJ     FULHEAT3   -3.36  -26.61   33.12   17.41    1.18  -14.66
SO YBADJ     FULHEAT3  -30.92    0.00    0.00    0.00    0.00    0.00
SO YBADJ     FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ     FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00

   SRCGROUP CTS G3A1059 G3B1059 G3C1059 GD3A1059 GD3B1059 GD3C1059
   SRCGROUP CTS O3A1059 O3B1059 O3C1059
   SRCGROUP HEATER FULHEAT3
   SRCGROUP ALL
SO FINISHED
**
****************************************
** ISCST3 Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED wc3A.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE C:\amodmet\PBIMIA01.SFC
   PROFFILE C:\amodmet\PBIMIA01.PFL
   SURFDATA 12844 2001 WEST_PALM_BEACH/INT'L_ARPT
   UAIRDATA 92803 2001 MIAMI/FIU
   PROFBASE 19 FEET
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE FIRST
   PLOTFILE PERIOD ALL NOXSIG.p01
OU FINISHED
**
```

AERBOB RELEASE 020304

AERMOD OUTPUT FILE NUMBER 1 :noxsig.o01
AERMOD OUTPUT FILE NUMBER 2 :noxsig.o02
AERMOD OUTPUT FILE NUMBER 3 :noxsig.o03
AERMOD OUTPUT FILE NUMBER 4 :noxsig.o04
AERMOD OUTPUT FILE NUMBER 5 :noxsig.o05
First title for last output file is: 2001 FPL WEST COUNTY UNIT 3 - NO2 SIG ANALYSIS, OIL 11/6/07
Second title for last output file is: NO2 IMPACTS, CT/HRSGs AND FUEL HEATERS

AVERAGING TIME	YEAR	CONC (ug/m3)	X (m)	Y (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	CTS				
Annual					
	2001	0.738	561550.	2952600.	01123124
	2002	0.640	561650.	2953000.	02123124
	2003	0.594	561750.	2953100.	03123124
	2004	0.708	561550.	2952600.	04123124
	2005	0.571	561550.	2952700.	05123124
SOURCE GROUP ID:	HEATER				
Annual					
	2001	0.857	561966.	2952946.	01123124
	2002	0.867	561967.	2952995.	02123124
	2003	0.729	561967.	2952995.	03123124
	2004	0.836	561966.	2952946.	04123124
	2005	0.749	561966.	2952946.	05123124
SOURCE GROUP ID:	ALL				
Annual					
	2001	1.167	561967.	2952995.	01123124
	2002	1.252	561967.	2952995.	02123124
	2003	1.113	561967.	2952995.	03123124
	2004	1.132	561967.	2952995.	04123124
	2005	1.047	561966.	2952946.	05123124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

AERMOD

AAQS ANALYSIS

24-HOUR SO_2 CONCENTRATIONS

```
CO STARTING
   TITLEONE 2001 FPL WEST COUNTY UNIT 3 - 24-HOUR SO2 AAQS ANALYSIS 11/16/07
   TITLETWO CT/HRSGs ON GAS WITH DB - WITH HUBBARD CONSTRUCTION
   MODELOPT DFAULT CONC NOWARN
   AVERTIME 24
   POLLUTID SO2
   RUNORNOT RUN
CO FINISHED
**
****************************************
** ISCST3 Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** WEST COUNTY UNIT 3 SOURCES, HRSGS ON GAS WITH DB, BASE LOAD, 95 DEG
   LOCATION G3A1095 POINT 562202.790 2952748.590 4.000
   LOCATION G3B1095 POINT 562201.600 2952654.460 4.000
   LOCATION G3C1095 POINT 562200.640 2952609.610 4.000
   LOCATION FULHEAT3   POINT  562195.690 2952917.930 4.000
** Source Parameters **
** 100% Load, 95 F
   SRCPARAM G3A1095  1.97  45.4  357.5    16.67  6.71
   SRCPARAM G3B1095  1.97  45.4  357.5    16.67  6.71
   SRCPARAM G3C1095  1.97  45.4  357.5    16.67  6.71
   SRCPARAM FULHEAT3 0.0068 9.14  533.2 16.15 0.305

** Building Downwash **
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID G3A1095     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3A1095     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3A1095     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID G3A1095     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3A1095     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3A1095     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN G3A1095     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3A1095     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3A1095     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN G3A1095     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3A1095     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3A1095     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    G3A1095   -105.97 -109.86 -110.42   -35.01   -40.32   -44.41
SO XBADJ    G3A1095    -47.15   -48.46   -48.29   -48.24   -46.89   -44.11
SO XBADJ    G3A1095    -40.00   -34.67   -28.29   -21.05   -13.17    -4.88
SO XBADJ    G3A1095     -3.08    -1.92    -0.71     0.53     1.75     2.92
SO XBADJ    G3A1095      3.99     4.95     5.76     4.82     3.55     2.18
SO XBADJ    G3A1095      0.74    -0.72    -2.15    -3.53    -4.79  -145.00
SO YBADJ    G3A1095     11.56    -5.58   -22.55    20.37    16.98    13.07
SO YBADJ    G3A1095      8.76     4.19    -0.51    -5.20    -9.73   -13.96
SO YBADJ    G3A1095    -17.77   -21.03   -23.66   -25.57   -26.71   -27.03
SO YBADJ    G3A1095    -26.53   -25.22   -23.15   -20.37   -16.98   -13.07
SO YBADJ    G3A1095     -8.76    -4.19     0.51     5.20     9.73    13.96
SO YBADJ    G3A1095     17.77    21.03    23.66    25.57    26.71    29.22


SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID G3B1095     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3B1095     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3B1095     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID G3B1095     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3B1095     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3B1095     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN G3B1095     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3B1095     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3B1095     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN G3B1095     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3B1095     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3B1095     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    G3B1095    -13.06   -21.00   -28.30   -34.75   -40.13   -67.76
SO XBADJ    G3B1095    -47.12   -48.51   -48.42   -48.44   -47.16   -44.45
SO XBADJ    G3B1095    -40.38   -35.09 -109.21 -109.09 -105.66    40.08
SO XBADJ    G3B1095     -3.50    -2.30    -1.03     0.27     1.56    26.26
SO XBADJ    G3B1095      3.96     5.00     5.89     5.02     3.83     2.52
SO XBADJ    G3B1095      1.13    -0.29    -1.70    -3.06   -48.90   -50.87
SO YBADJ    G3B1095     26.73    25.49    23.48    20.76    17.40   -25.37
SO YBADJ    G3B1095      9.22     4.65    -0.07    -4.78    -9.35   -13.64
```

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SO YBADJ    G3B1095    -17.51  -20.84   24.43    7.74   -9.19  -28.03
SO YBADJ    G3B1095    -26.73  -25.49  -23.48  -20.76  -17.40   25.37
SO YBADJ    G3B1095     -9.22   -4.65    0.07    4.78    9.35   13.64
SO YBADJ    G3B1095     17.51   20.84   23.55   25.54   35.50   28.03


SO BUILDHGT G3C1095     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3C1095     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3C1095     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3C1095     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3C1095     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT G3C1095     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID G3C1095     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID G3C1095     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID G3C1095     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID G3C1095     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID G3C1095     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID G3C1095     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN G3C1095     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN G3C1095     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN G3C1095     39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN G3C1095     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN G3C1095     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN G3C1095     39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    G3C1095     31.27  -21.50  -28.74  -35.12  -40.43  -44.50
SO XBADJ    G3C1095    -47.23  -48.52  -48.34  -48.26  -46.89  -66.04
SO XBADJ    G3C1095    -39.96  -34.62  -28.22  -20.96 -149.66   -4.77
SO XBADJ    G3C1095    -47.83   -1.81   -0.59    0.64    1.85    3.01
SO XBADJ    G3C1095      4.07    5.01    5.80    4.84    3.56   24.11
SO XBADJ    G3C1095      0.71   -0.77   -2.23   -3.61   -4.89   -6.02
SO YBADJ    G3C1095     33.57   25.23   23.13   20.34   16.92   12.99
SO YBADJ    G3C1095      8.67    4.09   -0.62   -5.32   -9.85   25.69
SO YBADJ    G3C1095    -17.88  -21.14  -23.76  -25.65   -0.45  -27.07
SO YBADJ    G3C1095    -33.57  -25.23  -23.13  -20.34  -16.92  -12.99
SO YBADJ    G3C1095     -8.67   -4.09    0.62    5.32    9.85  -25.69
SO YBADJ    G3C1095     17.88   21.14   23.76   25.65   26.77   27.07

SO BUILDHGT FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3     0.00    0.00    0.00    0.00    0.00   26.82
SO BUILDHGT FULHEAT3    26.82   26.82   31.39   31.39   31.39   31.39
SO BUILDHGT FULHEAT3    31.39    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3     0.00    0.00    0.00    0.00    0.00   25.00
SO BUILDWID FULHEAT3    26.64   27.47   41.50   43.16   43.51   42.54
SO BUILDWID FULHEAT3    43.42    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3     0.00    0.00    0.00    0.00    0.00   27.46
SO BUILDLEN FULHEAT3    27.47   26.64   30.44   24.57   17.96   10.80
SO BUILDLEN FULHEAT3    16.56    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3     0.00    0.00    0.00    0.00    0.00 -146.49
SO XBADJ    FULHEAT3 -147.95 -144.92 -102.79 -104.28 -102.60 -143.85
SO XBADJ    FULHEAT3   -96.66    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3     0.00    0.00    0.00    0.00    0.00   20.00
SO YBADJ    FULHEAT3    -3.36  -26.61   33.12   17.41    1.18  -14.66
SO YBADJ    FULHEAT3   -30.92    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3     0.00    0.00    0.00    0.00    0.00    0.00

***********PSD CLASS II INCREMENT CONSUMING SOURCES*****************

**      FPL West County Energy Center (WCEC) UNITS 1 AND 2
   LOCATION FPLWC1A  POINT 562217.400 2953555.830 4.000
   LOCATION FPLWC1B  POINT 562216.490 2953461.530 4.000
   LOCATION FPLWC1C  POINT 562215.370 2953416.640 4.000
   LOCATION FPLWC2A  POINT 562210.050 2953149.570 4.000
   LOCATION FPLWC2B  POINT 562208.630 2953056.360 4.000
   LOCATION FPLWC2C  POINT 562207.660 2953010.730 4.000
   LOCATION FULHEAT1 POINT 562195.690 2953700.000 4.000
   LOCATION FULHEAT2 POINT 562195.690 2953317.000 4.000
*******************************************************************
**      FPL West County Energy Center (WCEC)
**SO SRCPARAM     FPLWCEC  14.11    45.42   360      18.50    6.71
   SRCPARAM FPLWC1A 1.97  45.4  357.5    16.67  6.71
   SRCPARAM FPLWC1B 1.97  45.4  357.5    16.67  6.71
   SRCPARAM FPLWC1C 1.97  45.4  357.5    16.67  6.71
   SRCPARAM FPLWC2A 1.97  45.4  357.5    16.67  6.71
   SRCPARAM FPLWC2B 1.97  45.4  357.5    16.67  6.71
   SRCPARAM FPLWC2C 1.97  45.4  357.5    16.67  6.71
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   SRCPARAM FULHEAT1 0.0068 9.14  533.2 16.15 0.305
   SRCPARAM FULHEAT2 0.0068 9.14  533.2 16.15 0.305

** BUILDING DOWNWASH FOR UNITS 1 AND 2
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID FPLWC1A     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1A     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC1A     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID FPLWC1A     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1A     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC1A     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN FPLWC1A     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1A     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC1A     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN FPLWC1A     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1A     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC1A     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    FPLWC1A    -13.31   -21.39   -28.82   -35.38   -40.86   -45.10
SO XBADJ    FPLWC1A    -47.98   -49.39   -49.30   -49.29   -47.95   -45.16
SO XBADJ    FPLWC1A    -41.00   -35.59   -29.10   -21.72   -13.69    -5.24
SO XBADJ    FPLWC1A     -3.26    -1.91    -0.51     0.90     2.29     3.61
SO XBADJ    FPLWC1A      4.82     5.88     6.76     5.87     4.62     3.23
SO XBADJ    FPLWC1A      1.74     0.20    -1.34    -2.85    -4.27   -99.58
SO YBADJ    FPLWC1A     27.58    26.29    24.20    21.37    17.90    13.88
SO YBADJ    FPLWC1A      9.44     4.71    -0.16    -5.03    -9.74   -14.15
SO YBADJ    FPLWC1A    -18.14   -21.58   -24.36   -26.40   -27.63   -28.03
SO YBADJ    FPLWC1A    -27.58   -26.29   -24.20   -21.37   -17.90   -13.88
SO YBADJ    FPLWC1A     -9.44    -4.71     0.16     5.03     9.74    14.15
SO YBADJ    FPLWC1A     18.14    21.58    24.36    26.40    27.63    29.79


SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID FPLWC1B     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1B     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC1B     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID FPLWC1B     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1B     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC1B     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN FPLWC1B     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1B     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC1B     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN FPLWC1B     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1B     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC1B     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    FPLWC1B    -13.18   -21.42   -29.00   -35.71   -41.33   -45.70
SO XBADJ    FPLWC1B    -48.67   -50.17   -50.14   -50.17   -48.84   -46.03
SO XBADJ    FPLWC1B    -41.83   -36.35   -29.76   -22.28   -14.11    -5.52
SO XBADJ    FPLWC1B     -3.38    -1.89    -0.33     1.23     2.76     4.20
SO XBADJ    FPLWC1B      5.52     6.66     7.61     6.75     5.51     4.10
SO XBADJ    FPLWC1B      2.57     0.96    -0.68    -2.30    -3.85    -5.28
SO YBADJ    FPLWC1B     28.46    27.18    25.07    22.20    18.65    14.54
SO YBADJ    FPLWC1B      9.99     5.13     0.12    -4.90    -9.77   -14.34
SO YBADJ    FPLWC1B    -18.47   -22.04   -24.95   -27.09   -28.42   -28.88
SO YBADJ    FPLWC1B    -28.46   -27.18   -25.07   -22.20   -18.65   -14.54
SO YBADJ    FPLWC1B     -9.99    -5.13    -0.12     4.90     9.77    14.34
SO YBADJ    FPLWC1B     18.47    22.04    24.95    27.09    28.42    28.88


SO BUILDHGT FPLWC1C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1C     31.39    31.39    26.82    31.39    31.39    31.39
SO BUILDHGT FPLWC1C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID FPLWC1C     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1C     24.57    17.96    15.85    16.56    23.30    29.34
SO BUILDWID FPLWC1C     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID FPLWC1C     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1C     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC1C     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN FPLWC1C     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1C     43.16    43.51    22.55    43.42    43.33    41.93
SO BUILDLEN FPLWC1C     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN FPLWC1C     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1C     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC1C     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    FPLWC1C     31.22   -22.09   -29.42   -35.85   -41.20   -45.29
SO XBADJ    FPLWC1C    -48.01   -49.26  -119.00   -48.87   -47.41   -67.51
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SO XBADJ	FPLWC1C	-69.82	-34.76	-68.08	-64.07	-58.12	-50.41
SO XBADJ	FPLWC1C	-47.79	-1.21	0.08	1.38	2.63	3.80
SO XBADJ	FPLWC1C	4.85	5.76	6.49	5.45	4.07	25.58
SO XBADJ	FPLWC1C	30.57	34.63	37.64	-3.74	40.17	39.61
SO YBADJ	FPLWC1C	35.15	25.74	23.53	20.61	17.07	13.00
SO YBADJ	FPLWC1C	8.55	3.83	-11.18	-5.81	-10.44	25.10
SO YBADJ	FPLWC1C	16.64	-21.91	-1.53	-10.69	-19.52	-27.76
SO YBADJ	FPLWC1C	-35.15	-25.74	-23.53	-20.61	-17.07	-13.00
SO YBADJ	FPLWC1C	-8.55	-3.83	1.01	5.81	10.44	-25.10
SO YBADJ	FPLWC1C	-16.64	-7.67	1.53	26.43	19.52	27.76
SO BUILDHGT	FPLWC2A	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2A	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2A	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2A	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2A	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2A	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDWID	FPLWC2A	43.42	43.33	41.93	39.26	35.39	30.44
SO BUILDWID	FPLWC2A	24.57	17.96	10.80	16.56	23.30	29.34
SO BUILDWID	FPLWC2A	34.48	38.57	41.50	43.16	43.51	42.54
SO BUILDWID	FPLWC2A	43.42	43.33	41.93	39.26	35.39	30.44
SO BUILDWID	FPLWC2A	24.57	17.96	10.80	16.56	23.30	29.34
SO BUILDWID	FPLWC2A	34.48	38.57	41.50	43.16	43.51	42.54
SO BUILDLEN	FPLWC2A	16.56	23.30	29.34	34.48	38.57	41.50
SO BUILDLEN	FPLWC2A	43.16	43.51	42.54	43.42	43.33	41.93
SO BUILDLEN	FPLWC2A	39.26	35.39	30.44	24.57	17.96	10.80
SO BUILDLEN	FPLWC2A	16.56	23.30	29.34	34.48	38.57	41.50
SO BUILDLEN	FPLWC2A	43.16	43.51	42.54	43.42	43.33	41.93
SO BUILDLEN	FPLWC2A	39.26	35.39	30.44	24.57	17.96	10.80
SO XBADJ	FPLWC2A	-105.09	-109.15	-27.86	-34.28	-39.67	-43.85
SO XBADJ	FPLWC2A	-46.70	-48.13	-48.09	-48.17	-46.96	-44.33
SO XBADJ	FPLWC2A	-40.34	-35.14	-28.86	-21.71	-13.89	-5.66
SO XBADJ	FPLWC2A	-3.88	-2.72	-1.48	-0.20	1.10	2.35
SO XBADJ	FPLWC2A	3.54	4.62	5.56	4.75	3.63	2.40
SO XBADJ	FPLWC2A	1.09	-0.25	-1.58	-2.87	-4.06	-5.14
SO YBADJ	FPLWC2A	12.40	-4.60	23.36	20.72	17.44	13.64
SO YBADJ	FPLWC2A	9.42	4.92	0.26	-4.40	-8.93	-13.19
SO YBADJ	FPLWC2A	-17.04	-20.38	-23.10	-25.12	-26.37	-26.83
SO YBADJ	FPLWC2A	-26.46	-25.30	-23.36	-20.72	-17.44	-13.64
SO YBADJ	FPLWC2A	-9.42	-4.92	-0.26	4.40	8.93	13.19
SO YBADJ	FPLWC2A	17.04	20.38	23.10	25.12	26.37	26.83
SO BUILDHGT	FPLWC2B	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2B	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2B	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2B	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2B	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2B	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDWID	FPLWC2B	43.42	43.33	41.93	39.26	35.39	30.44
SO BUILDWID	FPLWC2B	24.57	17.96	10.80	16.56	23.30	29.34
SO BUILDWID	FPLWC2B	34.48	38.57	41.50	43.16	43.51	42.54
SO BUILDWID	FPLWC2B	43.42	43.33	41.93	39.26	35.39	30.44
SO BUILDWID	FPLWC2B	24.57	17.96	10.80	16.56	23.30	29.34
SO BUILDWID	FPLWC2B	34.48	38.57	41.50	43.16	43.51	42.54
SO BUILDLEN	FPLWC2B	16.56	23.30	29.34	34.48	38.57	41.50
SO BUILDLEN	FPLWC2B	43.16	43.51	42.54	43.42	43.33	41.93
SO BUILDLEN	FPLWC2B	39.26	35.39	30.44	24.57	17.96	10.80
SO BUILDLEN	FPLWC2B	16.56	23.30	29.34	34.48	38.57	41.50
SO BUILDLEN	FPLWC2B	43.16	43.51	42.54	43.42	43.33	41.93
SO BUILDLEN	FPLWC2B	39.26	35.39	30.44	24.57	17.96	10.80
SO XBADJ	FPLWC2B	-13.05	-21.07	-28.45	-34.96	-40.42	-44.64
SO XBADJ	FPLWC2B	-47.51	-48.93	-48.87	-48.89	-47.61	-44.88
SO XBADJ	FPLWC2B	-40.78	-35.45	-108.87	-108.81	31.48	-98.87
SO XBADJ	FPLWC2B	-3.51	-2.23	-0.89	0.48	1.84	3.14
SO XBADJ	FPLWC2B	4.35	5.42	6.33	5.48	4.28	2.95
SO XBADJ	FPLWC2B	1.53	0.07	-1.40	-2.83	-4.16	-5.38
SO YBADJ	FPLWC2B	27.19	25.94	23.91	21.16	17.76	13.82
SO YBADJ	FPLWC2B	9.46	4.81	0.02	-4.77	-9.42	-13.78
SO YBADJ	FPLWC2B	-17.72	-21.13	24.73	8.10	-35.61	-25.41
SO YBADJ	FPLWC2B	-27.19	-25.94	-23.91	-21.16	-17.76	-13.82
SO YBADJ	FPLWC2B	-9.46	-4.81	-0.02	4.77	9.42	13.78
SO YBADJ	FPLWC2B	17.72	21.13	23.89	25.93	27.18	27.60
SO BUILDHGT	FPLWC2C	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2C	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2C	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2C	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2C	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2C	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDWID	FPLWC2C	43.42	43.33	41.93	39.26	35.39	30.44
SO BUILDWID	FPLWC2C	24.57	17.96	10.80	16.56	23.30	29.34
SO BUILDWID	FPLWC2C	34.48	38.57	41.50	43.16	43.51	42.54
SO BUILDWID	FPLWC2C	43.42	43.33	41.93	39.26	35.39	30.44
SO BUILDWID	FPLWC2C	24.57	17.96	10.80	16.56	23.30	29.34
SO BUILDWID	FPLWC2C	34.48	38.57	41.50	43.16	43.51	42.54

```
SO BUILDLEN FPLWC2C     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC2C     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC2C     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN FPLWC2C     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC2C     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC2C     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    FPLWC2C     32.05   -21.28   -28.55   -34.94   -40.28   -44.39
SO XBADJ    FPLWC2C    -47.15   -48.48   -48.34   -48.30   -46.97   -44.21
SO XBADJ    FPLWC2C    -40.11   -34.79   -68.07   -21.17   -13.29  -144.50
SO XBADJ    FPLWC2C    -48.62    -2.02    -0.79     0.46     1.70     2.89
SO XBADJ    FPLWC2C      3.99     4.97     5.80     4.88     3.63     2.28
SO XBADJ    FPLWC2C      0.85    -0.60    -2.03    -3.40    40.60    40.25
SO YBADJ    FPLWC2C     34.15    25.30    23.24    20.48    17.09    13.19
SO YBADJ    FPLWC2C      8.88     4.31    -0.40    -5.09    -9.63   -13.88
SO YBADJ    FPLWC2C    -17.70   -20.99    -0.24   -25.57   -26.73   -24.44
SO YBADJ    FPLWC2C    -34.15   -25.30   -23.24   -20.48   -17.09   -13.19
SO YBADJ    FPLWC2C     -8.88    -4.31     0.40     5.09     9.63    13.88
SO YBADJ    FPLWC2C     17.70    20.99    23.64    25.57    18.30    26.63

SO BUILDHGT FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT2    26.82    26.82     0.00    31.39    31.39    31.39
SO BUILDHGT FULHEAT2    31.39     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT2    26.64    27.47     0.00    43.16    43.51    42.54
SO BUILDWID FULHEAT2    43.42     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT2    27.47    26.64     0.00    24.57    17.96    10.80
SO BUILDLEN FULHEAT2    16.56     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT2  -138.04  -137.67     0.00  -107.73  -152.83  -150.05
SO XBADJ    FULHEAT2  -149.33     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT2    11.17   -10.58     0.00    26.14    17.16    -8.08
SO YBADJ    FULHEAT2   -33.07     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT2     0.00     0.00     0.00     0.00     0.00     0.00


SO BUILDHGT FULHEAT1    31.39     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT1     0.00     0.00     0.00     0.00    31.39    31.39
SO BUILDWID FULHEAT1    43.42     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT1     0.00     0.00     0.00     0.00    43.51    42.54
SO BUILDLEN FULHEAT1    16.56     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT1     0.00     0.00     0.00     0.00    17.96    10.80
SO XBADJ    FULHEAT1  -151.52     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT1     0.00     0.00     0.00     0.00  -150.02  -149.73
SO YBADJ    FULHEAT1   -18.84     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT1     0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT1     0.00     0.00     0.00     0.00    31.29     6.32

** OTHER BACKGROUND AAQS SOURCES
****************************AAQS SOURCES****************************

**       Hubbard Construction Company
SO LOCATION     HUBB23    POINT    562626.880 2951930.240          4.0
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**      SFWMD - Pump Station S-5A
SO LOCATION     PS_S5A   POINT   562860.0        2951370.0       4.0

**      Atlantic Sugar
SO LOCATION     ATLSUG14 POINT   552900.0        2945200.0       1.5
SO LOCATION     ATLSUG5  POINT   552900.0        2945200.0       1.5

**      Osceola Farms
SO LOCATION     OSBLR5B  POINT   544200.0        2968000.0       1.5

**      Solid Waste Authority of PBC
SO LOCATION     PBCRRF   POINT   584490.0        2961260.0       1.5

**      United Technologies Corporation
SO LOCATION     PRATARCH POINT   568410.0        2975840.0       1.5
SO LOCATION     PRATBO12 POINT   568410.0        2975840.0       1.5

**      Sugar Cane Growers Co-Op
SO LOCATION     SCBLR1N  POINT   534900.0        2953300.0       1.5
SO LOCATION     SCBLR2N  POINT   534900.0        2953300.0       1.5
SO LOCATION     SCBLR3N  POINT   534900.0        2953300.0       1.5
SO LOCATION     SCBLR4N  POINT   534900.0        2953300.0       1.5
SO LOCATION     SCBLR5N  POINT   534900.0        2953300.0       1.5
SO LOCATION     SCBLR8N  POINT   534900.0        2953300.0       1.5

SO LOCATION     SCBLR1F  POINT   534900.0        2953300.0       1.5
SO LOCATION     SCBLR4F  POINT   534900.0        2953300.0       1.5

**      U.S..Sugar Corp. Bryant Mill
** NO OPERATING PERMIT

**      City of Lake Worth Utilities
SO LOCATION     LAKWTHDG POINT   592800.0        2943700.0       7.6
SO LOCATION     LAKWTHHR POINT   592800.0        2943700.0       7.6
SO LOCATION     LAKWTHU3 POINT   592800.0        2943700.0       7.6
SO LOCATION     LAKWTHU4 POINT   592800.0        2943700.0       7.6
SO LOCATION     LAKWTHU5 POINT   592800.0        2943700.0       7.6

**      FPL -Riviera Beach
SO LOCATION     RIVU34   POINT   593270.0        2960620.0       3.0

**      New Hope Power Partnership (Okeelanta)
SO LOCATION     OKCOGENF POINT   524920.0        2939440.0       1.5

**      Okeelanta
SO LOCATION     OKBLR16  POINT   524700.0        2939500.0       1.5

**      Indiantown Cogeneration LP - Indiantown Plant
SO LOCATION     INDTOWN1 POINT   547650.0        2990700.0       9.1

**      FPL - Martin Power Plant
SO LOCATION     MART12   POINT   542680.0        2992650.0       7.6
SO LOCATION     MART34   POINT   542680.0        2992650.0       7.6
SO LOCATION     MARTAUX  POINT   542680.0        2992650.0       7.6
SO LOCATION     MARTGEN  POINT   542680.0        2992650.0       7.6
SO LOCATION     MART8OIL POINT   542680.0        2992650.0       7.6

**      U.S. Sugar Clewiston Mill and Refinery
SO LOCATION     USSBLR1N POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR2N POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR4N POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR7N POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR8N  POINT   506100.0        2956900.0       6.1

SO LOCATION     USSBLR7F POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR8F POINT   506100.0        2956900.0       6.1

SO LOCATION     S12      POINT   506100.0        2956900.0       6.1

**      Florida Power & Light (PFL) - Fort Lauderdale
SO LOCATION     LAUDU45  POINT   579390.0        2883360.0       1.5
SO LOCATION     LDGT1_12 POINT   579390.0        2883360.0       1.5
SO LOCATION     LDGT1324 POINT   579390.0        2883360.0       1.5

**      FPL - Port Everglades Plant
SO LOCATION     PTEVU12  POINT   587400.0        2885300.0       1.5
SO LOCATION     PTEVU34  POINT   587400.0        2885300.0       1.5
SO LOCATION     PTEVGTS  POINT   587400.0        2885300.0       1.5

**      Ft. Pierce Utilities Authority
SO LOCATION     FPUA6    POINT   566120.0        3036350.0       3.0
SO LOCATION     FPUA7    POINT   566120.0        3036350.0       3.0
SO LOCATION     FPUA8    POINT   566120.0        3036350.0       3.0
SO LOCATION     FPUA9    POINT   566120.0        3036350.0       3.0

**      Rinker Materials Corporation
SO LOCATION     RMC14    POINT   557490.0        2852050.0       1.5
SO LOCATION     RMC18    POINT   557490.0        2852050.0       1.5
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**      City of Vero Beach Municipal Utilities
SO LOCATION     VERBU1   POINT   561400.0        3056500.0        1.5
SO LOCATION     VERBU2   POINT   561400.0        3056500.0        1.5
SO LOCATION     VERBU3   POINT   561400.0        3056500.0        1.5
SO LOCATION     VERBU4   POINT   561400.0        3056500.0        1.5
SO LOCATION     VERBU5   POINT   561400.0        3056500.0        1.5
**********************************************************************

**      Hubbard Construction Company
SO SRCPARAM     HUBB23   3.08    9.14     394     30.54   1.16

**      SFWMD - Pump Station S-5A
SO SRCPARAM     PS_S5A   0.43    4.88     686     5.30    0.99

**      Atlantic Sugar
SO SRCPARAM     ATLSUG14 33.43   27.43    346     17.97   1.83
SO SRCPARAM     ATLSUG5  6.10    27.43    339     19.24   1.68

**      Osceola Farms
SO SRCPARAM     OSBLR5B  147.28  27.43    339     14.23   1.52

**      Solid Waste Authority of PBC
SO SRCPARAM     PBCRRF   11.55   76.20    505     24.90   2.04

**      United Technologies Corporation
SO SRCPARAM     PRATARCH 13.99   15.24    811     143.73  0.91
SO SRCPARAM     PRATBO12 0.27    4.57     533     6.92    0.76

**      Sugar Cane Growers Co-Op
SO SRCPARAM     SCBLR1N  75.49   45.72    342     15.12   2.13
SO SRCPARAM     SCBLR2N  75.46   45.72    342     15.58   2.13
SO SRCPARAM     SCBLR3N  0.00    54.86    342     12.28   1.62
SO SRCPARAM     SCBLR4N  0.00    54.86    345     16.49   2.72
SO SRCPARAM     SCBLR5N  0.00    45.72    344     23.50   2.13
SO SRCPARAM     SCBLR8N  0.00    47.24    341     11.46   2.90

SO SRCPARAM     SCBLR1F  75.49   45.72    342     15.12   2.13
SO SRCPARAM     SCBLR4F  71.51   54.86    345     16.49   2.72

**      U.S. Sugar Corp. Bryant Mill
** NO OPERATING PERMIT

**      City of Lake Worth Utilities
SO SRCPARAM     LAKWTHDG 4.78    5.18     626     37.09   0.56
SO SRCPARAM     LAKWTHHR 19.78   14.02    720     24.84   4.88
SO SRCPARAM     LAKWTHU3 98.78   34.44    418     15.70   2.13
SO SRCPARAM     LAKWTHU4 135.07  35.05    418     17.00   2.29
SO SRCPARAM     LAKWTHU5 13.73   22.86    480     27.80   3.05

**      FPL -Riviera Beach
SO SRCPARAM     RIVU34   2113.65 90.83    401     26.85   4.88

**      New Hope Power Partnership (Okeelanta)
SO SRCPARAM     OKCOGENF 57.46   60.66    451     20.63   3.05

**      Okeelanta
SO SRCPARAM     OKBLR16  1.52    22.86    474     30.69   1.52

**      Indiantown Cogeneration LP - Indiantown Plant
SO SRCPARAM     INDTOWN1 73.33   150.88   333     28.41   4.88

**      FPL - Martin Power Plant
SO SRCPARAM     MART12   1743.84 152.10   443     20.94   7.99
SO SRCPARAM     MART34   463.68  64.92    411     18.90   6.10
SO SRCPARAM     MARTAUX  12.90   18.29    535     15.24   1.10
SO SRCPARAM     MARTGEN  0.51    7.62     786     39.62   0.30
SO SRCPARAM     MART8OIL 51.96   36.58    420     22.40   5.79

**      U.S. Sugar Clewiston Mill and Refinery
SO SRCPARAM     USSBLR1N 3.75    64.92    339     25.27   2.44
SO SRCPARAM     USSBLR2N 3.38    64.92    339     25.27   2.44
SO SRCPARAM     USSBLR4N 4.54    45.72    344     27.04   2.50
SO SRCPARAM     USSBLR7N 15.81   68.58    441     28.80   2.44
SO SRCPARAM     USSBLR8N 8.14    60.66    430     23.07   3.32

SO SRCPARAM     USSBLR7F 15.81   68.58    441     28.80   2.44
SO SRCPARAM     USSBLR8F 8.14    60.66    430     23.07   3.32

SO SRCPARAM     S12      0.08    9.14     344     6.95    0.61

**      Florida Power & Light (PFL) - Fort Lauderdale
SO SRCPARAM     LAUDU45  271.15  45.72    439     48.37   5.49
SO SRCPARAM     LDGT1_12 97.12   13.72    733     28.44   4.75
SO SRCPARAM     LDGT1324 97.12   13.72    733     28.44   4.75

**      FPL - Port Everglades Plant
SO SRCPARAM     PTEVU12  1593.90 104.50   416     26.72   4.27
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SO SRCPARAM      PTEVU34  2772.00 104.50  415      23.88    5.52
SO SRCPARAM      PTEVGTS  49.89   13.40   733      28.43    4.75

**       Ft. Pierce Utilities Authority
SO SRCPARAM      FPUA6    22.06   45.11   436      10.97    1.52
SO SRCPARAM      FPUA7    47.38   44.81   426      18.62    2.16
SO SRCPARAM      FPUA8    64.92   45.72   441      25.48    2.44
SO SRCPARAM      FPUA9    40.19   20.73   492      18.23    3.41

**       Rinker Materials Corporation
SO SRCPARAM      RMC14    3.80    24.38   700      11.58    1.37
SO SRCPARAM      RMC18    38.56   109.42  513      49.04    2.44

**       City of Vero Beach Municipal Utilities
SO SRCPARAM      VERBU1   29.01   60.96   416      32.16    1.07
SO SRCPARAM      VERBU2   50.34   60.96   448      41.82    1.07
SO SRCPARAM      VERBU3   142.07  60.96   445      14.11    2.23
SO SRCPARAM      VERBU4   69.05   60.96   413      23.68    2.13
SO SRCPARAM      VERBU5   15.66   38.10   483      25.02    3.35
****************************************************************

**       Atlantic Sugar
SO EMISFACT ATLSUG14            MONTH 1 1 1 1 0 0 0 0 0 1 1 1

**       Osceola Farms
SO EMISFACT OSBLR5B             MONTH 1 1 1 1 0 0 0 0 0 1 1 1

**       Sugar Cane Growers Co-Op
SO EMISFACT SCBLR1N-SCBLR8N     MONTH 1 1 1 1 0 0 0 0 0 1 1 1
SO EMISFACT SCBLR1F-SCBLR4F     MONTH 0 0 0 0 1 1 1 1 1 0 0 0

**       U.S. Sugar Corp. Bryant Mill
** NO OPERATING PERMIT

**       U.S. Sugar Clewiston Mill and Refinery
SO EMISFACT USSBLR1N-USSBLR8N  MONTH 1 1 1 1 0 0 0 0 0 1 1 1
SO EMISFACT USSBLR7F-USSBLR8F  MONTH 0 0 0 0 1 1 1 1 1 0 0 0

   SRCGROUP ALL
SO FINISHED
**
****************************************
** ISCST3 Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED WC31000X.ROU
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
**    SURFFILE C:\amodmet\PBIMIA01.SFC
**    PROFFILE C:\amodmet\PBIMIA01.PFL
   SURFFILE PBIMIA01.SFC
   PROFFILE PBIMIA01.PFL
   SURFDATA 12844 2001 WEST_PALM_BEACH/INT'L_ARPT
   UAIRDATA 92803 2001 MIAMI/FIU
   PROFBASE 19 FEET
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE FIRST SECOND
OU FINISHED
**
```

AERBOB RELEASE 020304

AERMOD OUTPUT FILE NUMBER 1 :SO2AQS.001
AERMOD OUTPUT FILE NUMBER 2 :SO2AQS.002
AERMOD OUTPUT FILE NUMBER 3 :SO2AQS.003
AERMOD OUTPUT FILE NUMBER 4 :SO2AQS.004
AERMOD OUTPUT FILE NUMBER 5 :SO2AQS.005
First title for last output file is: 2001 FPL WEST COUNTY UNIT 3 - 24-HOUR SO2 AAQS ANALYSIS 11/16/07
Second title for last output file is: CT/HRSGs ON GAS WITH DB - WITH HUBBARD CONSTRUCTION

AVERAGING TIME	YEAR	CONC (ug/m3)	X (m)	Y (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: ALL					
HIGH 24-Hour					
	2001	36.91384	562278.	2951988.	01112824
	2002	35.41566	562278.	2951938.	02100124
	2003	34.75807	562276.	2951842.	03110824
	2004	34.59829	562276.	2951842.	04122924
	2005	36.25502	562277.	2951890.	05092524
HSH 24-Hour					
	2001	35.16559	562276.	2951842.	01020824
	2002	31.39473	562277.	2951890.	02120824
	2003	33.87473	562276.	2951842.	03041524
	2004	33.72626	562276.	2951842.	04010824
	2005	36.06708	562277.	2951890.	05010424

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

S:\Projects\FPL\West County Unit3 Aug07\report\MODEL FILES APPENDIX\AppenF\TEXTFILES AERMOD\SO2AQSX.SUM

AERBOB RELEASE 020304

AERMOD OUTPUT FILE NUMBER 1 :SO2AQSX.001
AERMOD OUTPUT FILE NUMBER 2 :SO2AQSX.002
AERMOD OUTPUT FILE NUMBER 3 :SO2AQSX.003
AERMOD OUTPUT FILE NUMBER 4 :SO2AQSX.004
AERMOD OUTPUT FILE NUMBER 5 :SO2AQSX.005
First title for last output file is: 2001 FPL WEST COUNTY UNIT 3 - 24-HOUR SO2 AAQS ANALYSIS 11/16/07
Second title for last output file is: CT/HRSGs ON GAS WITH DB - WITHOUT HUBBARD CONSTRUCTION

AVERAGING TIME	YEAR	CONC (ug/m3)	X (m)	Y (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	ALL				
HIGH 24-Hour					
	2001	20.67067	562833.	2951564.	01011924
	2002	24.42946	561350.	2953100.	02101424
	2003	27.00574	563050.	2953500.	03011324
	2004	29.98161	561986.	2954035.	04021124
	2005	22.41301	561750.	2952800.	05031924
HSH 24-Hour					
	2001	19.07354	562785.	2951566.	01021524
	2002	23.72608	561150.	2952900.	02101324
	2003	23.82323	561150.	2951700.	03112224
	2004	20.83378	562785.	2951566.	04091624
	2005	20.59271	562785.	2951566.	05060224

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

AERMOD

AAQS ANALYSIS
24-HOUR PM_{10} CONCENTRATIONS

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CO STARTING
   TITLEONE 2001 FPL WEST COUNTY UNIT 3 - 24-HR PM10 AAQS ANALYS 11/16/07
   TITLETWO PM10 IMPACTS, CT/HRSGs ON OIL, INCLUDES PBA AND HUBBARD CONST
   MODELOPT DFAULT CONC NOWARN
   AVERTIME 24
   POLLUTID PM10
   MULTYEAR H6H YEAR1.SAV
   RUNORNOT RUN
CO FINISHED
**
*****************************************
** ISCST3 Source Pathway
*****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** FPL WEST COUNTY UNIT 3 SOURCES
   LOCATION 03A7595 POINT 562202.790 2952748.590 4.000
   LOCATION 03B7595 POINT 562201.600 2952654.460 4.000
   LOCATION 03C7595 POINT 562200.640 2952609.610 4.000
   LOCATION FULHEAT3   POINT  562195.690 2952917.930 4.000

   LOCATION COOL3_01   POINT  562250.100 2952798.640 4.000
   LOCATION COOL3_02   POINT  562250.290 2952780.090 4.000
   LOCATION COOL3_03   POINT  562249.930 2952764.770 4.000
   LOCATION COOL3_04   POINT  562249.650 2952746.510 4.000
   LOCATION COOL3_05   POINT  562248.890 2952730.590 4.000
   LOCATION COOL3_06   POINT  562249.100 2952713.490 4.000
   LOCATION COOL3_07   POINT  562248.330 2952698.830 4.000
   LOCATION COOL3_08   POINT  562247.560 2952681.350 4.000
   LOCATION COOL3_09   POINT  562247.780 2952665.220 4.000
   LOCATION COOL3_10   POINT  562247.500 2952649.290 4.000
   LOCATION COOL3_11   POINT  562247.220 2952633.360 4.000
   LOCATION COOL3_12   POINT  562245.830 2952616.600 4.000
   LOCATION COOL3_13   POINT  562245.530 2952598.970 4.000
   LOCATION COOL3_14   POINT  562266.000 2952798.620 4.000
   LOCATION COOL3_15   POINT  562265.720 2952780.450 4.000
   LOCATION COOL3_16   POINT  562264.970 2952764.670 4.000
   LOCATION COOL3_17   POINT  562264.200 2952746.770 4.000
   LOCATION COOL3_18   POINT  562263.440 2952730.710 4.000
   LOCATION COOL3_19   POINT  562262.670 2952713.490 4.000
   LOCATION COOL3_20   POINT  562262.890 2952697.350 4.000
   LOCATION COOL3_21   POINT  562262.610 2952681.390 4.000
   LOCATION COOL3_22   POINT  562262.330 2952665.430 4.000
   LOCATION COOL3_23   POINT  562261.360 2952647.630 4.000
   LOCATION COOL3_24   POINT  562262.330 2952633.060 4.000
   LOCATION COOL3_25   POINT  562261.850 2952616.570 4.000
   LOCATION COOL3_26   POINT  562260.390 2952598.600 4.000
** Source Parameters **
** HRSGS ON OIL, 75% Load, 95 F
   SRCPARAM 03A7595  4.11    45.4  447.0 20.36 6.71
   SRCPARAM 03B7595  4.11    45.4  447.0 20.36 6.71
   SRCPARAM 03C7595  4.11    45.4  447.0 20.26 6.71
   SRCPARAM FULHEAT3 0.00252  9.14  533.2 16.15 0.305

   SRCPARAM COOL3_01 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_02 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_03 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_04 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_05 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_06 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_07 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_08 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_09 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_10 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_11 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_12 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_13 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_14 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_15 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_16 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_17 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_18 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_19 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_20 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_21 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_22 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_23 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_24 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_25 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_26 0.00565 19.202 309.2 7.17 10.668

** Building Downwash **
SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
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SO BUILDHGT 03A7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03A7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03A7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID 03A7595     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID 03A7595     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID 03A7595     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID 03A7595     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID 03A7595     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID 03A7595     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN 03A7595     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN 03A7595     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN 03A7595     39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN 03A7595     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN 03A7595     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN 03A7595     39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    03A7595   -105.97 -109.86 -110.42  -35.01  -40.32  -44.41
SO XBADJ    03A7595    -47.15  -48.46  -48.29  -48.24  -46.89  -44.11
SO XBADJ    03A7595    -40.00  -34.67  -28.29  -21.05  -13.17   -4.88
SO XBADJ    03A7595     -3.08   -1.92   -0.71    0.53    1.75    2.92
SO XBADJ    03A7595      3.99    4.95    5.76    4.82    3.55    2.18
SO XBADJ    03A7595      0.74   -0.72   -2.15   -3.53   -4.79 -145.00
SO YBADJ    03A7595     11.56   -5.58  -22.55   20.37   16.98   13.07
SO YBADJ    03A7595      8.76    4.19   -0.51   -5.20   -9.73  -13.96
SO YBADJ    03A7595    -17.77  -21.03  -23.66  -25.57  -26.71  -27.03
SO YBADJ    03A7595    -26.53  -25.22  -23.15  -20.37  -16.98  -13.07
SO YBADJ    03A7595     -8.76   -4.19    0.51    5.20    9.73   13.96
SO YBADJ    03A7595     17.77   21.03   23.66   25.57   26.71   29.22


SO BUILDHGT 03B7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03B7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03B7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03B7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03B7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03B7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID 03B7595     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID 03B7595     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID 03B7595     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID 03B7595     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID 03B7595     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID 03B7595     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN 03B7595     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN 03B7595     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN 03B7595     39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN 03B7595     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN 03B7595     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN 03B7595     39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    03B7595    -13.06  -21.00  -28.30  -34.75  -40.13  -67.76
SO XBADJ    03B7595    -47.12  -48.51  -48.42  -48.44  -47.16  -44.45
SO XBADJ    03B7595    -40.38  -35.09 -109.21 -109.09 -105.66   40.08
SO XBADJ    03B7595     -3.50   -2.30   -1.03    0.27    1.56   26.26
SO XBADJ    03B7595      3.96    5.00    5.89    5.02    3.83    2.52
SO XBADJ    03B7595      1.13   -0.29   -1.70   -3.06  -48.90  -50.87
SO YBADJ    03B7595     26.73   25.49   23.48   20.76   17.40  -25.37
SO YBADJ    03B7595      9.22    4.65   -0.07   -4.78   -9.35  -13.64
SO YBADJ    03B7595    -17.51  -20.84   24.43    7.74   -9.19  -28.03
SO YBADJ    03B7595    -26.73  -25.49  -23.48  -20.76  -17.40   25.37
SO YBADJ    03B7595     -9.22   -4.65    0.07    4.78    9.35   13.64
SO YBADJ    03B7595     17.51   20.84   23.55   25.54   35.50   28.03


SO BUILDHGT 03C7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03C7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03C7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03C7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03C7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT 03C7595     31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID 03C7595     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID 03C7595     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID 03C7595     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID 03C7595     43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID 03C7595     24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID 03C7595     34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN 03C7595     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN 03C7595     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN 03C7595     39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN 03C7595     16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN 03C7595     43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN 03C7595     39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    03C7595     31.27  -21.50  -28.74  -35.12  -40.43  -44.50
SO XBADJ    03C7595    -47.23  -48.52  -48.34  -48.26  -46.89  -66.04
SO XBADJ    03C7595    -39.96  -34.62  -28.22  -20.96 -149.66   -4.77
SO XBADJ    03C7595    -47.83   -1.81   -0.59    0.64    1.85    3.01
SO XBADJ    03C7595      4.07    5.01    5.80    4.84    3.56   24.11
SO XBADJ    03C7595      0.71   -0.77   -2.23   -3.61   -4.89   -6.02
SO YBADJ    03C7595     33.57   25.23   23.13   20.34   16.92   12.99
SO YBADJ    03C7595      8.67    4.09   -0.62   -5.32   -9.85   25.69
SO YBADJ    03C7595    -17.88  -21.14  -23.76  -25.65   -0.45  -27.07
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SO YBADJ     03C7595    -33.57  -25.23  -23.13  -20.34  -16.92  -12.99
SO YBADJ     03C7595     -8.67   -4.09    0.62    5.32    9.85  -25.69
SO YBADJ     03C7595     17.88   21.14   23.76   25.65   26.77   27.07

SO BUILDHGT COOL3_01     14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_01     31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_01     14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_01     14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_01     14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_01     14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_01     62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_01     24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_01    184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_01     62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_01    210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_01    184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_01    215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_01     43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_01    157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_01    215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_01    104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_01    157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_01 -207.86 -173.08 -177.42 -176.37 -108.73 -110.41
SO XBADJ    COOL3_01 -108.73  -47.36  -11.22   -8.22   -8.70   -8.91
SO XBADJ    COOL3_01    -8.85   -8.53   -7.95   -7.12   -6.08   -4.85
SO XBADJ    COOL3_01    -8.05  -11.52  -14.64  -17.32  -19.47  -21.02
SO XBADJ    COOL3_01   -21.94  -22.19  -21.77  -54.16  -88.63 -120.42
SO XBADJ    COOL3_01 -148.54 -172.15 -190.53 -203.13 -209.54 -209.60
SO YBADJ    COOL3_01   -22.97   21.76   -6.61  -34.77    9.05   -6.62
SO YBADJ    COOL3_01   -22.09 -101.73 -102.37  -99.90  -94.40  -86.02
SO YBADJ    COOL3_01   -75.03  -61.76  -46.62  -30.06  -12.58    5.27
SO YBADJ    COOL3_01    22.97   39.97   55.75   69.84   81.81   91.29
SO YBADJ    COOL3_01    98.00  101.73  102.37   99.90   94.40   86.02
SO YBADJ    COOL3_01    75.03   61.76   46.62   30.06   12.58   -5.27


SO BUILDHGT COOL3_02     14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_02     31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_02     14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_02     14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_02     14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_02     14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_02     62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_02     24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_02    184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_02     62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL3_02    210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_02    184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_02    215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_02     43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_02    157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_02    215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL3_02    104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_02    157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_02 -189.62 -155.71 -161.45 -162.28  -96.96 -101.30
SO XBADJ    COOL3_02 -102.56  -44.32  -11.41  -11.62  -15.22  -18.35
SO XBADJ    COOL3_02   -20.92  -22.86  -24.10  -24.62  -24.38  -23.40
SO XBADJ    COOL3_02   -26.29  -28.89  -30.61  -31.41   58.38   59.80
SO XBADJ    COOL3_02   -28.11  -25.23  -21.58  -50.75  -82.11 -110.98
SO XBADJ    COOL3_02 -136.47 -157.82 -174.37 -185.63 -191.24 -191.05
SO YBADJ    COOL3_02   -19.56   28.28    2.83  -22.70   23.38    9.54
SO YBADJ    COOL3_02    -4.59  -83.43  -83.82  -81.67  -77.03  -70.05
SO YBADJ    COOL3_02   -60.94  -49.99  -37.51  -23.89   -9.55    5.08
SO YBADJ    COOL3_02    19.56   33.45   46.31   57.77  -23.38   -9.54
SO YBADJ    COOL3_02    80.51   83.43   83.82   81.67   77.03   70.05
SO YBADJ    COOL3_02    60.94   49.99   37.51   23.89    9.55   -5.08


SO BUILDHGT COOL3_03     14.94   31.39   31.39   31.39   14.94   31.39
SO BUILDHGT COOL3_03     31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_03     14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_03     14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_03     14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_03     14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_03     62.37   43.33   41.93   39.26  180.68   30.44
SO BUILDWID COOL3_03     24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_03    184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_03     62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL3_03    210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_03    184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_03    215.91   23.30   29.34   34.48  162.46   41.50
SO BUILDLEN COOL3_03     43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_03    157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_03    215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL3_03    104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_03    157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_03 -174.47 -141.19 -148.00 -150.31 -121.09  -93.33
SO XBADJ    COOL3_03   -96.98  -97.69  -11.05  -13.93  -20.12  -25.70
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SO XBADJ     COOL3_03  -30.50  -34.37  -37.19  -38.89  -39.40  -38.72
SO XBADJ     COOL3_03  -41.44  -43.41  -44.06  -43.37  -41.37   51.83
SO XBADJ     COOL3_03  -33.68  -28.24  -21.94  -48.44  -77.21 -103.63
SO XBADJ     COOL3_03 -126.90 -146.32 -161.29 -171.36 -176.22 -175.73
SO YBADJ     COOL3_03  -17.26   33.18   10.18  -13.13  -55.98   22.63
SO YBADJ     COOL3_03    9.68   -3.56  -68.50  -66.52  -62.51  -56.60
SO YBADJ     COOL3_03  -48.98  -39.86  -29.54  -18.31   -6.53    5.44
SO YBADJ     COOL3_03   17.26   28.54   38.97   48.20   55.98  -22.63
SO YBADJ     COOL3_03   66.23   68.41   68.50   66.52   62.51   56.60
SO YBADJ     COOL3_03   48.98   39.86   29.54   18.31    6.53   -5.44


SO BUILDHGT COOL3_04   14.94   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL3_04   14.94   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_04   14.94   14.94   14.94   14.94,  14.94   14.94
SO BUILDHGT COOL3_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_04   62.37   43.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL3_04  210.24   17.96   10.80   16.56  211.84  201.33
SO BUILDWID COOL3_04  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_04   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_04  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_04  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_04  215.91   23.30   29.34   34.48   38.57  135.28
SO BUILDLEN COOL3_04  104.00   43.51   42.54   43.42   97.33  129.33
SO BUILDLEN COOL3_04  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_04  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_04  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_04  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_04 -156.44 -166.90 -132.05 -136.15 -136.11  -87.81
SO XBADJ    COOL3_04  -63.80  -94.25  -95.15  -94.75  -26.10  -34.59
SO XBADJ    COOL3_04  -42.02  -48.17  -52.87  -55.95  -57.34  -56.98
SO XBADJ    COOL3_04  -59.47  -60.66  -60.01  -57.54  -53.32  -47.48
SO XBADJ    COOL3_04  -40.19  -31.69  -22.22  -45.55  -71.23  -94.74
SO XBADJ    COOL3_04 -115.38 -132.51 -145.61 -154.29 -158.28 -157.47
SO YBADJ    COOL3_04  -14.36   24.46   19.07   -1.60  -22.23  -46.37
SO YBADJ    COOL3_04  -49.17   14.37    1.57  -11.29  -45.26  -40.65
SO YBADJ    COOL3_04  -34.81  -27.91  -20.16  -11.81   -3.09    5.72
SO YBADJ    COOL3_04   14.36   22.56   30.08   36.68   42.17   46.37
SO YBADJ    COOL3_04   49.17   50.47   50.24   48.49   45.26   40.65
SO YBADJ    COOL3_04   34.81   27.91   20.16   11.81    3.09   -5.72


SO BUILDHGT COOL3_05   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_05   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_05   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_05   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_05   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_05   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_05   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_05  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL3_05  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_05   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_05  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL3_05  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_05  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_05  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL3_05  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_05  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_05  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL3_05  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_05 -140.63 -151.68 -117.88 -123.46 -125.29 -123.32
SO XBADJ    COOL3_05  -57.65  -34.35  -10.01  -96.76  -96.36  -93.04
SO XBADJ    COOL3_05  -51.67  -59.88  -66.27  -70.65  -72.88  -72.90
SO XBADJ    COOL3_05  -75.28  -75.88  -74.18  -70.22  -64.13  -56.10
SO XBADJ    COOL3_05  -46.35  -35.20  -22.98  -43.53  -66.50   51.11
SO XBADJ    COOL3_05 -105.73 -120.80 -132.21 -139.59 -142.74 -141.55
SO YBADJ    COOL3_05  -12.35   29.19   26.37    8.05  -10.52  -28.77
SO YBADJ    COOL3_05  -34.47  -34.93  -34.32    4.52   -8.58  -21.42
SO YBADJ    COOL3_05  -22.13  -17.10  -11.55   -5.65    0.42    6.48
SO YBADJ    COOL3_05   12.35   17.83   22.78   27.03   30.46   32.97
SO YBADJ    COOL3_05   34.47   34.93   34.32   32.68   30.04   21.42
SO YBADJ    COOL3_05   22.13   17.10   11.55    5.65   -0.42   -6.48


SO BUILDHGT COOL3_06   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_06   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_06   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_06   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_06   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_06   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_06   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_06  210.24  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL3_06   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_06   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_06  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_06   34.48   38.57  135.28  104.00   69.55   32.99
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SO BUILDLEN COOL3_06  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_06  104.00   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL3_06   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_06  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_06  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_06   39.26   35.39  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_06 -123.83 -135.69 -103.18 -110.50 -114.46 -114.95
SO XBADJ    COOL3_06  -51.99  -31.59  -10.22  -22.02 -102.41 -101.77
SO XBADJ    COOL3_06  -98.04  -91.33  -81.19  -86.79  -89.76  -90.00
SO XBADJ    COOL3_06  -92.08  -91.88  -88.89  -83.19  -74.97  -64.46
SO XBADJ    COOL3_06  -52.00  -37.96  -22.77  -40.36  -60.45  -78.71
SO XBADJ    COOL3_06   58.78   55.94 -117.29 -123.45 -125.86 -124.45
SO YBADJ    COOL3_06   -9.17   35.23   35.10   19.20    2.71  -13.85
SO YBADJ    COOL3_06  -18.33  -18.05  -17.22  -15.87    7.42   -6.72
SO YBADJ    COOL3_06  -20.65  -33.95   -3.18    0.00    3.19    6.27
SO YBADJ    COOL3_06    9.17   11.79   14.04   15.88   17.23   18.05
SO YBADJ    COOL3_06   18.33   18.05   17.22   15.87   14.04   11.78
SO YBADJ    COOL3_06   20.65   33.95    3.18    0.00   -3.19   -6.27


SO BUILDHGT COOL3_07   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_07   31.39   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_07   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_07   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_07   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_07   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_07   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_07   24.57  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL3_07   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_07   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_07  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_07  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_07  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_07   43.16   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL3_07   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_07  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_07  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_07  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_07 -109.26 -105.92 -129.86  -98.77 -104.45 -106.95
SO XBADJ    COOL3_07 -106.21  -28.28   -9.45  -23.81 -106.70 -108.43
SO XBADJ    COOL3_07 -106.87 -102.06  -93.50 -100.30 -104.06 -104.66
SO XBADJ    COOL3_07 -106.66 -105.92 -101.97  -94.91  -84.98  -72.46
SO XBADJ    COOL3_07  -57.74  -41.27  -23.54  -38.57  -56.16  -72.05
SO XBADJ    COOL3_07  -85.74  -96.83 -104.98 -109.94 -111.56 -109.79
SO YBADJ    COOL3_07   -7.38   -7.50   19.82   28.03   13.45   -1.54
SO YBADJ    COOL3_07  -16.49   -3.75   -2.56   -1.30   21.46    6.36
SO YBADJ    COOL3_07   -8.92  -23.94    4.82    5.74    6.49    7.04
SO YBADJ    COOL3_07    7.38    7.50    7.38    7.04    6.49    5.74
SO YBADJ    COOL3_07    4.82    3.75    2.56    1.30    0.00   -1.30
SO YBADJ    COOL3_07   -2.56   -3.75   -4.82   -5.74   -6.49   -7.04


SO BUILDHGT COOL3_08   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_08   31.39   31.39   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_08   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL3_08   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_08   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_08   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_08   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_08   24.57   17.96  214.45  215.91  211.84   29.34
SO BUILDWID COOL3_08   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL3_08   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL3_08  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_08  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_08  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_08   43.16   43.51   32.99   62.37   97.33   41.93
SO BUILDLEN COOL3_08   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL3_08  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL3_08  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_08  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_08  -91.91  -89.23 -114.33 -120.23  -92.62 -121.01
SO XBADJ    COOL3_08  -99.50  -98.44   -8.68  -26.08  -46.42 -116.51
SO XBADJ    COOL3_08 -117.52 -114.96 -108.91 -116.47 -121.14 -122.14
SO XBADJ    COOL3_08 -124.00 -122.61 -117.49 -108.80   54.05   56.05
SO XBADJ    COOL3_08  -64.44  -45.06  -24.31  -36.29  -50.91  -63.97
SO XBADJ    COOL3_08  -75.10  -83.94  -90.23  -93.78  -94.48  -92.31
SO YBADJ    COOL3_08   -5.10   -2.24   27.90   10.17   26.35  -25.67
SO YBADJ    COOL3_08   -0.33  -13.85   14.92   16.05   16.69   21.89
SO YBADJ    COOL3_08    4.96  -12.11  -28.82   12.44   10.29    7.81
SO YBADJ    COOL3_08    5.10    2.24   -0.69   -3.60  -26.35  -13.21
SO YBADJ    COOL3_08  -11.35  -13.33  -14.92  -16.05  -16.69  -16.83
SO YBADJ    COOL3_08  -16.45  -15.57  -14.23  -12.44  -10.29   -7.81


SO BUILDHGT COOL3_09   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_09   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_09   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL3_09   14.94   14.94   14.94   14.94   14.94   31.39
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SO BUILDHGT COOL3_09    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_09    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_09    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL3_09    24.57    17.96   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_09    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL3_09    62.37    97.33   129.33   157.40   180.68    30.44
SO BUILDWID COOL3_09   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_09   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_09   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL3_09    43.16    43.51    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_09    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL3_09   215.91   211.84   201.33   184.70   162.46    41.50
SO BUILDLEN COOL3_09   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_09   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_09   -76.06   -74.15  -100.47  -108.02  -112.28  -113.13
SO XBADJ    COOL3_09   -94.19   -95.85    -8.90   -29.10   -52.15   -73.61
SO XBADJ    COOL3_09  -128.05  -127.46  -122.98  -131.70  -137.07  -138.27
SO XBADJ    COOL3_09  -139.85  -137.69  -131.35  -121.01  -107.00    48.17
SO XBADJ    COOL3_09   -69.75   -47.64   -24.09   -33.27   -45.18   -55.72
SO XBADJ    COOL3_09   -64.56   -71.44   -76.15   -78.54   -78.55   -76.18
SO YBADJ    COOL3_09    -2.09     3.48    36.15    20.70     4.62   -11.59
SO YBADJ    COOL3_09    14.91     2.07    31.05    31.89    31.77    30.68
SO YBADJ    COOL3_09    17.18    -1.91   -20.94    17.75    12.87     7.59
SO YBADJ    COOL3_09     2.09    -3.48    -8.95   -14.14   -18.90   -27.29
SO YBADJ    COOL3_09   -26.58   -29.26   -31.05   -31.89   -31.77   -30.68
SO YBADJ    COOL3_09   -28.66   -25.77   -22.10   -17.75   -12.87    -7.59


SO BUILDHGT COOL3_10    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL3_10    31.39    31.39    31.39    31.39    31.39    14.94
SO BUILDHGT COOL3_10    31.39    31.39    31.39    31.39    14.94    14.94
SO BUILDHGT COOL3_10    14.94    14.94    14.94    31.39    14.94    14.94
SO BUILDHGT COOL3_10    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_10    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_10    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL3_10    24.57    17.96    10.80    16.56    23.30   201.33
SO BUILDWID COOL3_10    34.48    38.57    41.50    43.16    69.55    32.99
SO BUILDWID COOL3_10    62.37    97.33   129.33    39.26   180.68   198.48
SO BUILDWID COOL3_10   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_10   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_10   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL3_10    43.16    43.51    42.54    43.42    43.33   129.33
SO BUILDLEN COOL3_10    39.26    35.39    30.44    24.57   215.62   214.45
SO BUILDLEN COOL3_10   215.91   211.84   201.33    34.48   162.46   135.28
SO BUILDLEN COOL3_10   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_10   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_10   -60.33   -59.08   -56.04   -95.64  -101.83  -104.93
SO XBADJ    COOL3_10  -104.84   -92.81   -94.32   -94.54   -92.06   -81.33
SO XBADJ    COOL3_10  -138.08  -139.48  -136.64  -129.65  -152.71  -154.20
SO XBADJ    COOL3_10  -155.59  -152.76  -145.28    61.16  -117.46   -97.95
SO XBADJ    COOL3_10   -75.46   -50.69   -24.37   -30.78   -40.00   -47.99
SO XBADJ    COOL3_10   -54.53   -59.42   -62.49   -63.67   -62.91   -60.25
SO YBADJ    COOL3_10     0.40     8.67    16.67    30.73    16.65     2.06
SO YBADJ    COOL3_10   -12.59    17.71     5.10    -7.66   -20.19    44.62
SO YBADJ    COOL3_10    29.56     8.54   -12.73   -33.62    15.91     7.87
SO YBADJ    COOL3_10    -0.40    -8.67   -16.67   -30.73   -30.93   -36.75
SO YBADJ    COOL3_10   -41.45   -44.90   -46.98   -47.63   -46.84   -44.62
SO YBADJ    COOL3_10   -41.05   -36.23   -30.31   -23.47   -15.91    -7.87


SO BUILDHGT COOL3_11    14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL3_11    31.39    31.39    14.94    31.39    31.39    31.39
SO BUILDHGT COOL3_11    31.39    31.39    31.39    31.39    14.94    14.94
SO BUILDHGT COOL3_11    14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL3_11    14.94    14.94    14.94    14.94    14.94    31.39
SO BUILDHGT COOL3_11    31.39    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_11    62.37    97.33   129.33   157.40    35.39    30.44
SO BUILDWID COOL3_11    24.57    17.96   214.45    16.56    23.30    29.34
SO BUILDWID COOL3_11    34.48    38.57    41.50    43.16    69.55    32.99
SO BUILDWID COOL3_11    62.37    97.33   129.33   157.40    35.39    30.44
SO BUILDWID COOL3_11   210.24   215.62   214.45   215.91   211.84    29.34
SO BUILDWID COOL3_11    34.48   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_11   215.91   211.84   201.33   184.70    38.57    41.50
SO BUILDLEN COOL3_11    43.16    43.51    32.99    43.42    43.33    41.93
SO BUILDLEN COOL3_11    39.26    35.39    30.44    24.57   215.62   214.45
SO BUILDLEN COOL3_11   215.91   211.84   201.33   184.70    38.57    41.50
SO BUILDLEN COOL3_11   104.00    69.55    32.99    62.37    97.33    41.93
SO BUILDLEN COOL3_11    39.26   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_11   -44.59   -44.02   -42.11   -38.92   -91.37   -96.72
SO XBADJ    COOL3_11   -99.12   -98.52    -8.34   -97.03   -97.24   -94.51
SO XBADJ    COOL3_11   -88.89  -151.50  -150.30  -144.52  -168.35  -170.13
SO XBADJ    COOL3_11  -171.32  -167.82  -159.22  -145.78    52.80    55.22
SO XBADJ    COOL3_11   -81.18   -53.73   -24.65   -28.29   -34.81    52.57
SO XBADJ    COOL3_11    49.64   -47.39   -48.84   -48.80   -47.28   -44.32
SO YBADJ    COOL3_11     2.89    13.85    24.39    34.19    28.67    15.72
SO YBADJ    COOL3_11     2.29   -11.21    62.91     8.08    -5.13   -18.17
SO YBADJ    COOL3_11   -30.67    19.00    -4.53   -27.91    18.95     8.15
SO YBADJ    COOL3_11    -2.89   -13.85   -24.39   -34.19   -28.67   -15.72
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SO YBADJ     COOL3_11   -56.32  -60.54  -62.91  -63.37  -61.90   18.17
SO YBADJ     COOL3_11    30.67  -46.68  -38.51  -29.18  -18.95   -8.15

SO BUILDHGT COOL3_12    14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_12    31.39   31.39   31.39   14.94   31.39   31.39
SO BUILDHGT COOL3_12    31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_12    14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_12    31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_12    31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_12    62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL3_12    24.57   17.96   10.80  215.91   23.30   29.34
SO BUILDWID COOL3_12    34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL3_12    62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL3_12    24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_12    34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_12   215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL3_12    43.16   43.51   42.54   62.37   43.33   41.93
SO BUILDLEN COOL3_12    39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL3_12   215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL3_12    43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_12    39.26   35.39  198.48  210.24  215.62  214.45
SO XBADJ     COOL3_12   -27.84  -27.79  -26.90  -25.19  -22.71  -87.14
SO XBADJ     COOL3_12   -92.09  -94.24  -93.53  -35.62 -101.67 -101.68
SO XBADJ     COOL3_12   -98.60 -163.45 -164.12 -159.80 -184.61 -186.89
SO XBADJ     COOL3_12 -188.07 -184.05 -174.43 -159.51 -139.75   45.64
SO XBADJ     COOL3_12    48.93  -58.01  -26.04  -26.75  -30.38  -33.10
SO XBADJ     COOL3_12    59.35   57.14  -35.02  -33.52  -31.01  -27.56
SO YBADJ     COOL3_12     4.44   18.28   31.57   43.90   54.89   29.54
SO YBADJ     COOL3_12    17.56    5.05   -7.61   80.11   11.10   -2.96
SO YBADJ     COOL3_12   -16.93   30.84    5.06  -20.87   23.23    9.54
SO YBADJ     COOL3_12    -4.44  -18.28  -31.57  -43.90  -54.89  -29.54
SO YBADJ     COOL3_12   -17.56  -76.80  -79.67  -80.11  -78.13  -73.77
SO YBADJ     COOL3_12    16.93   30.39  -48.10  -36.22  -23.23   -9.54

SO BUILDHGT COOL3_13    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_13    14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_13    31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_13    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_13    14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_13    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_13    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_13   210.24  215.62   10.80   16.56   23.30   29.34
SO BUILDWID COOL3_13    34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL3_13    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_13   210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL3_13   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_13   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_13   104.00   69.55   42.54   43.42   43.33   41.93
SO BUILDLEN COOL3_13    39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL3_13   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_13   104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL3_13   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ     COOL3_13   -10.43  -11.12  -11.48  -11.49  -11.15  -10.47
SO XBADJ     COOL3_13    -9.47   -8.19  -93.23  -94.32  -92.71 -110.24
SO XBADJ     COOL3_13 -109.71 -105.84 -179.23 -176.26 -201.92 -204.52
SO XBADJ     COOL3_13 -205.48 -200.72 -189.85 -173.21 -151.31 -124.82
SO XBADJ     COOL3_13   -94.53  -61.36  -26.34  -23.99  -24.64   46.36
SO XBADJ     COOL3_13   -23.70  -22.13  -19.90  -17.06  -13.70   -9.93
SO YBADJ     COOL3_13     7.20   24.03   40.12   55.00   68.21   79.34
SO YBADJ     COOL3_13    88.06   94.11   10.02   -2.63  -15.20   12.46
SO YBADJ     COOL3_13    -3.24  -18.83   14.13  -14.56   26.59    9.84
SO YBADJ     COOL3_13    -7.20  -24.03  -40.12  -55.00  -68.21  -79.34
SO YBADJ     COOL3_13   -88.06  -94.11  -97.30  -97.53  -94.80   27.31
SO YBADJ     COOL3_13   -80.86  -70.08  -57.17  -42.53  -26.59   -9.84

SO BUILDHGT COOL3_14    14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_14    31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_14    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_14    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_14    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_14    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_14    62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_14    24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_14   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_14    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_14   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_14   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_14   215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_14    43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_14   157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_14   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_14   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_14   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ     COOL3_14 -210.60 -178.50 -185.35 -186.57 -120.90 -124.17
SO XBADJ     COOL3_14 -123.66  -63.01  -27.12  -23.88  -23.64  -22.69
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SO XBADJ    COOL3_14  -21.05  -18.76  -15.91  -12.58   -8.86   -4.87
SO XBADJ    COOL3_14   -5.31   -6.10   -6.71   -7.11   -7.30   -7.26
SO XBADJ    COOL3_14   -7.01   -6.54   -5.87  -38.50  -73.69 -106.64
SO XBADJ    COOL3_14 -136.35 -161.92 -182.57 -197.67 -206.76 -209.58
SO YBADJ    COOL3_14   -7.31   36.70    7.17  -22.57   19.28    1.35
SO YBADJ    COOL3_14  -16.63  -98.95 -102.35 -102.64  -99.81  -93.95
SO YBADJ    COOL3_14  -85.24  -73.93  -60.38  -44.99  -28.24  -10.63
SO YBADJ    COOL3_14    7.31   25.02   41.97   57.65   71.58   83.33
SO YBADJ    COOL3_14   92.55   98.95  102.35  102.64   99.81   93.95
SO YBADJ    COOL3_14   85.24   73.93   60.38   44.99   28.24   10.63


SO BUILDHGT COOL3_15   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_15   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_15   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_15   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_15  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_15   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_15  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_15  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_15  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_15   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_15  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_15  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_15  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_15  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_15 -192.66 -188.56 -169.48 -172.48 -109.01 -114.84
SO XBADJ    COOL3_15 -117.18 -115.97  -26.84  -26.76  -29.59  -31.53
SO XBADJ    COOL3_15  -32.51  -32.50  -31.51  -29.55  -26.70  -23.04
SO XBADJ    COOL3_15  -23.26  -23.27  -22.59  -21.21  -19.19  -16.59
SO XBADJ    COOL3_15  -13.48   -9.97   -6.15  -35.62  -67.73  -97.79
SO XBADJ    COOL3_15 -124.88 -148.18 -166.97 -180.69 -188.92 -191.41
SO YBADJ    COOL3_15   -4.43  -19.07   16.02  -11.11   33.02   16.94
SO YBADJ    COOL3_15    0.34  -16.26  -84.18  -84.70  -82.64  -78.08
SO YBADJ    COOL3_15  -71.14  -62.04  -51.05  -38.51  -24.81  -10.35
SO YBADJ    COOL3_15    4.43   19.07   33.13   46.19   57.84   67.73
SO YBADJ    COOL3_15   75.57   81.11   84.18   84.70   82.64   78.08
SO YBADJ    COOL3_15   71.14   62.04   51.05   38.51   24.81   10.35


SO BUILDHGT COOL3_16   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_16   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_16   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_16   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_16  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_16   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_16  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_16  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_16  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_16   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_16  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_16  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_16  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_16  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_16 -176.99 -173.48 -155.43 -159.91 -159.52 -106.30
SO XBADJ    COOL3_16 -111.08 -112.49  -26.09  -28.76  -34.29  -38.77
SO XBADJ    COOL3_16  -42.08  -44.11  -44.80  -44.13  -42.11  -38.82
SO XBADJ    COOL3_16  -38.93  -38.36  -36.63  -33.78  -29.91  -25.13
SO XBADJ    COOL3_16  -19.59  -13.45   -6.90  -33.61  -63.04  -90.55
SO XBADJ    COOL3_16 -115.32 -136.57 -153.68 -166.12 -173.51 -175.63
SO YBADJ    COOL3_16   -2.43  -14.38   23.26   -1.54  -26.29   30.23
SO YBADJ    COOL3_16   14.92   -0.85  -68.40  -69.03  -67.56  -64.04
SO YBADJ    COOL3_16  -58.57  -51.32  -42.51  -32.41  -21.33   -9.60
SO YBADJ    COOL3_16    2.43   14.38   25.89   36.62   46.23   54.44
SO YBADJ    COOL3_16   61.00   65.70   68.40   69.03   67.56   64.04
SO YBADJ    COOL3_16   58.57   51.32   42.51   32.41   21.33    9.60


SO BUILDHGT COOL3_17   14.94   14.94   31.39   31.39   31.39   14.94
SO BUILDHGT COOL3_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_17   62.37   97.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL3_17  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_17  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_17   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_17  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_17  184.70  162.46  135.28  104.00   69.55   32.99
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SO BUILDLEN COOL3_17  215.91  211.84   29.34   34.48   38.57  135.28
SO BUILDLEN COOL3_17  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_17  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_17  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_17  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_17  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_17 -159.22 -156.40 -139.55 -145.70 -147.42 -100.54
SO XBADJ    COOL3_17  -77.57  -52.24  -25.32  -31.11  -39.69  -47.06
SO XBADJ    COOL3_17  -53.00  -57.33  -59.92  -60.68  -59.61  -56.72
SO XBADJ    COOL3_17  -56.69  -55.44  -52.51  -47.99  -42.01  -34.75
SO XBADJ    COOL3_17  -26.43  -17.31   -7.67  -31.26  -57.64  -82.27
SO XBADJ    COOL3_17 -104.40 -123.36 -138.56 -149.56 -156.01 -157.73
SO YBADJ    COOL3_17   -0.08   -8.98   31.54    9.38  -13.07  -39.32
SO YBADJ    COOL3_17  -44.44  -48.20  -50.50  -51.27  -50.48  -48.15
SO YBADJ    COOL3_17  -44.36  -39.22  -32.90  -25.57  -17.46   -8.83
SO YBADJ    COOL3_17    0.08    8.98   17.61   25.70   33.01   39.32
SO YBADJ    COOL3_17   44.44   48.20   50.50   51.27   50.48   48.15
SO YBADJ    COOL3_17   44.36   39.22   32.90   25.57   17.46    8.83

SO BUILDHGT COOL3_18   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_18   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_18   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_18  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL3_18  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_18   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_18  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_18  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_18  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_18  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL3_18  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_18  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_18  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_18  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_18 -143.28 -141.04 -165.02 -132.91 -136.52 -135.98
SO XBADJ    COOL3_18  -71.36  -48.70  -24.56 -111.07 -110.00 -105.58
SO XBADJ    COOL3_18  -62.74  -69.14  -73.44  -75.52  -75.29  -72.78
SO XBADJ    COOL3_18  -72.64  -70.79  -66.80  -60.78  -52.91  -43.43
SO XBADJ    COOL3_18  -32.64  -20.85   -8.43  -29.22  -52.86  -74.90
SO XBADJ    COOL3_18  -94.66 -111.54 -125.03 -134.73 -140.33 -141.67
SO YBADJ    COOL3_18    1.96   -4.20   16.97   19.12   -1.26  -21.60
SO YBADJ    COOL3_18  -29.61  -32.52  -34.44    1.88  -13.67  -28.80
SO YBADJ    COOL3_18  -31.57  -28.32  -24.21  -19.36  -13.92   -8.07
SO YBADJ    COOL3_18   -1.96    4.20   10.24   15.96   21.20   25.80
SO YBADJ    COOL3_18   29.61   32.52   34.44   35.32   35.12   33.86
SO YBADJ    COOL3_18   31.57   28.32   24.21   19.36   13.92    8.07

SO BUILDHGT COOL3_19   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_19   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_19   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_19   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_19  210.24  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL3_19   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_19   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_19  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_19  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_19  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_19  104.00   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL3_19   39.26  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_19  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_19  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_19  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_19 -126.18 -124.60 -149.72 -119.22 -124.86 -126.70
SO XBADJ    COOL3_19  -64.75  -44.95  -23.79  -35.38 -115.16 -113.52
SO XBADJ    COOL3_19 -108.43  -81.84  -87.97  -91.43  -92.12  -90.00
SO XBADJ    COOL3_19  -89.73  -87.24  -82.10  -74.47  -64.57  -52.71
SO XBADJ    COOL3_19  -39.25  -24.60   -9.20  -26.99  -47.70  -66.96
SO XBADJ    COOL3_19  -84.18  -98.84 -110.51 -118.81 -123.51 -124.45
SO YBADJ    COOL3_19    4.19    0.97   24.91   29.60   11.44   -7.07
SO YBADJ    COOL3_19  -13.69  -15.69  -17.22  -18.23    2.78  -13.50
SO YBADJ    COOL3_19  -29.37  -16.66  -14.93  -12.75  -10.18   -7.30
SO YBADJ    COOL3_19   -4.19   -0.97    2.29    5.48    8.50   11.27
SO YBADJ    COOL3_19   13.69   15.69   17.22   18.23   18.68   18.56
SO YBADJ    COOL3_19   17.88   16.66   14.93   12.75   10.18    7.30

SO BUILDHGT COOL3_20   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_20   31.39   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_20   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_20   14.94   14.94   14.94   14.94   14.94   14.94
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SO BUILDHGT COOL3_20    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_20    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_20    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL3_20    24.57   215.62   214.45   215.91    23.30    29.34
SO BUILDWID COOL3_20    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL3_20    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL3_20   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_20   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_20   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL3_20    43.16    69.55    32.99    62.37    43.33    41.93
SO BUILDLEN COOL3_20    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL3_20   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL3_20   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_20   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_20  -110.33  -109.51  -135.85  -142.34  -114.65  -118.82
SO XBADJ    COOL3_20  -119.38   -42.37   -24.01   -38.40  -120.89  -121.78
SO XBADJ    COOL3_20  -118.98  -112.56  -102.06  -106.68  -108.05  -106.14
SO XBADJ    COOL3_20  -105.58  -102.33   -95.97   -86.69   -74.78   -60.59
SO XBADJ    COOL3_20   -44.57   -27.18    -8.98   -23.97   -41.97   -58.70
SO XBADJ    COOL3_20   -73.64   -86.34   -96.42  -103.57  -107.57  -108.31
SO YBADJ    COOL3_20     7.21     6.69    33.17    11.62    23.94     7.02
SO YBADJ    COOL3_20   -10.12     0.24    -1.08    -2.37    17.87     0.37
SO YBADJ    COOL3_20   -17.15   -34.14    -7.05    -7.43    -7.59    -7.52
SO YBADJ    COOL3_20    -7.21    -6.69    -5.97    -5.06    -4.00    -2.82
SO YBADJ    COOL3_20    -1.55    -0.24     1.08     2.37     3.59     4.70
SO YBADJ    COOL3_20     5.66     6.45     7.05     7.43     7.59     7.52

SO BUILDHGT COOL3_21    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL3_21    31.39    31.39    14.94    14.94    14.94    31.39
SO BUILDHGT COOL3_21    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_21    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL3_21    24.57    17.96   214.45   215.91   211.84    29.34
SO BUILDWID COOL3_21    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL3_21    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL3_21   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_21   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_21   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL3_21    43.16    43.51    32.99    62.37    97.33    41.93
SO BUILDLEN COOL3_21    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL3_21   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL3_21   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_21   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_21   -94.56   -94.41   -91.40  -129.94  -134.04  -134.06
SO XBADJ    COOL3_21  -113.66  -113.27   -23.73   -40.90   -60.55  -129.52
SO XBADJ    COOL3_21  -129.02  -124.60  -115.74  -121.58  -123.72  -122.10
SO XBADJ    COOL3_21  -121.35  -117.42  -109.93   -99.09   -85.25   -68.81
SO XBADJ    COOL3_21   -50.29   -30.23    -9.26   -21.48   -36.78   -50.96
SO XBADJ    COOL3_21   -63.59   -74.29   -82.74   -88.67   -91.90   -92.35
SO YBADJ    COOL3_21     9.71    11.89    13.71    21.67     1.77   -18.18
SO YBADJ    COOL3_21     4.78   -11.28    14.88    13.39    11.50    14.33
SO YBADJ    COOL3_21    -4.74   -23.66     1.17    -1.71    -4.54    -7.24
SO YBADJ    COOL3_21    -9.71   -11.89   -13.71   -15.11   -16.05   -16.50
SO YBADJ    COOL3_21   -16.45   -15.91   -14.88   -13.39   -11.50    -9.27
SO YBADJ    COOL3_21    -6.74    -4.02    -1.17     1.71     4.54     7.24

SO BUILDHGT COOL3_22    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL3_22    31.39    31.39    14.94    14.94    14.94    31.39
SO BUILDHGT COOL3_22    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL3_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_22    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL3_22    24.57    17.96   214.45   215.91   211.84    29.34
SO BUILDWID COOL3_22    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL3_22    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL3_22   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_22   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_22   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL3_22    43.16    43.51    32.99    62.37    97.33    41.93
SO BUILDLEN COOL3_22    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL3_22   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL3_22   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_22   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_22   -78.80   -79.32   -77.44  -117.53  -123.56  -125.84
SO XBADJ    COOL3_22  -124.29  -110.22   -23.45   -43.39   -65.75  -137.26
SO XBADJ    COOL3_22  -139.07  -136.65  -130.08  -136.48  -139.39  -138.06
SO XBADJ    COOL3_22  -137.12  -132.52  -123.89  -111.50   -95.72   -77.04
SO XBADJ    COOL3_22   -56.01   -33.28    -9.54   -18.98   -31.58   -43.22
SO XBADJ    COOL3_22   -53.55   -62.25   -69.06   -73.77   -76.23   -76.39
SO YBADJ    COOL3_22    12.21    17.08    21.44    31.71    13.82    -4.50
SO YBADJ    COOL3_22   -22.68     4.39    30.84    29.16    26.60    28.29
SO YBADJ    COOL3_22     7.67   -13.19   -33.65     4.01    -1.50    -6.96
SO YBADJ    COOL3_22   -12.21   -17.08   -21.44   -25.15   -28.09   -30.18
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SO YBADJ    COOL3_22  -31.36  -31.58  -30.84  -29.16  -26.60  -23.23
SO YBADJ    COOL3_22  -19.15  -14.49   -9.39   -4.01    1.50    6.96

SO BUILDHGT COOL3_23   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_23   31.39   14.94   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_23   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL3_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_23   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL3_23   24.57  215.62   10.80   16.56  211.84  201.33
SO BUILDWID COOL3_23   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL3_23   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_23  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_23  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_23  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL3_23   43.16   69.55   42.54   43.42   97.33  129.33
SO BUILDLEN COOL3_23   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL3_23  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_23  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_23  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_23  -61.10  -62.26  -61.54  -58.94 -111.38 -116.10
SO XBADJ    COOL3_23 -117.29  -32.23 -108.18 -108.48  -70.92  -94.17
SO XBADJ    COOL3_23 -149.76 -149.66 -145.01 -152.87 -156.75 -155.86
SO XBADJ    COOL3_23 -154.81 -149.58 -139.79 -125.76 -107.91  -86.78
SO XBADJ    COOL3_23  -63.01  -37.33  -10.51  -16.85  -26.40  -35.16
SO XBADJ    COOL3_23  -42.85  -49.24  -54.13  -57.37  -58.87  -58.59
SO YBADJ    COOL3_23   14.34   22.26   29.50   35.85   26.83   10.43
SO YBADJ    COOL3_23   -6.29   48.94    6.76   -8.43   43.66   39.13
SO YBADJ    COOL3_23   21.92   -1.01  -23.91   11.01    2.55   -5.99
SO YBADJ    COOL3_23  -14.34  -22.26  -29.50  -35.85  -41.11  -45.11
SO YBADJ    COOL3_23  -47.75  -48.94  -48.64  -46.86  -43.66  -39.13
SO YBADJ    COOL3_23  -33.41  -26.68  -19.13  -11.01   -2.55    5.99


SO BUILDHGT COOL3_24   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_24   31.39   31.39   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_24   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL3_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_24   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL3_24   24.57   17.96  214.45   16.56   23.30   29.34
SO BUILDWID COOL3_24   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL3_24   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_24  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_24  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_24  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL3_24   43.16   43.51   32.99   43.42   43.33   41.93
SO BUILDLEN COOL3_24   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL3_24  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_24  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_24  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_24  -46.92  -48.90  -49.40  -48.40  -45.93 -109.65
SO XBADJ    COOL3_24 -113.22 -113.35  -23.45 -111.96 -111.55 -107.74
SO XBADJ    COOL3_24 -159.87 -161.44 -158.11 -166.90 -171.27 -170.43
SO XBADJ    COOL3_24 -168.99 -162.94 -151.92 -136.30 -116.53  -93.22
SO XBADJ    COOL3_24  -67.08  -38.90   -9.54  -13.36  -20.51  -27.04
SO XBADJ    COOL3_24  -32.74  -37.45  -41.02  -43.35  -44.36  -44.02
SO YBADJ    COOL3_24   17.83   28.16   37.63   45.96   52.89   23.53
SO YBADJ    COOL3_24    7.74   -8.30   63.21    5.75  -10.01  -25.47
SO YBADJ    COOL3_24   32.46    7.62  -17.46   15.08    4.12   -6.96
SO YBADJ    COOL3_24  -17.83  -28.16  -37.63  -45.96  -52.89  -58.22
SO YBADJ    COOL3_24  -61.77  -63.45  -63.21  -61.04  -57.02  -51.26
SO YBADJ    COOL3_24  -43.95  -35.30  -25.58  -15.08   -4.12    6.96


SO BUILDHGT COOL3_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_25   31.39   31.39   31.39   14.94   31.39   31.39
SO BUILDHGT COOL3_25   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_25   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_25   24.57   17.96   10.80  215.91   23.30   29.34
SO BUILDWID COOL3_25   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL3_25   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_25  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_25  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_25  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_25   43.16   43.51   42.54   62.37   43.33   41.93
SO BUILDLEN COOL3_25   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL3_25  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_25  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_25  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_25  -30.59  -33.24  -34.88  -35.46  -34.96  -33.40
SO XBADJ    COOL3_25 -107.13 -110.01 -109.55  -51.40 -116.73 -115.57
SO XBADJ    COOL3_25 -110.89 -173.77 -172.15 -165.31 -187.42 -186.92
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SO XBADJ     COOL3_25 -185.32 -178.59 -166.45 -149.24 -127.50 -101.88
SO XBADJ     COOL3_25  -73.17  -42.24  -10.02  -10.97  -15.32  -19.21
SO XBADJ     COOL3_25  -22.51  -25.13  -26.98  -28.02  -28.20  -27.53
SO YBADJ     COOL3_25   20.22   33.34   45.46   56.19   65.21   72.26
SO YBADJ     COOL3_25   23.07    7.86   -7.58   77.36    5.65  -10.95
SO YBADJ     COOL3_25  -27.21   18.58   -8.80  -35.92    7.46   -6.48
SO YBADJ     COOL3_25  -20.22  -33.34  -45.46  -56.19  -65.21  -72.26
SO YBADJ     COOL3_25  -77.11  -79.61  -79.70  -77.36  -72.68  -65.78
SO YBADJ     COOL3_25  -56.89  -46.27  -34.24  -21.17   -7.46    6.48


SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_26   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_26   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_26   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_26  210.24  215.62   10.80   16.56   23.30   29.34
SO BUILDWID COOL3_26   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_26   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_26  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_26  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_26  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_26  104.00   69.55   42.54   43.42   43.33   41.93
SO BUILDLEN COOL3_26   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_26  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_26  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_26  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ     COOL3_26  -12.64  -15.86  -18.59  -20.76  -22.29  -23.15
SO XBADJ     COOL3_26  -23.31  -22.76 -108.09 -109.02 -121.51 -123.29
SO XBADJ     COOL3_26 -121.33 -115.68 -186.33 -198.61 -204.87 -204.89
SO XBADJ     COOL3_26 -203.27 -195.98 -182.74 -163.94 -140.17 -112.13
SO XBADJ     COOL3_26  -80.69  -46.79  -11.48   -9.29  -10.55  -11.49
SO XBADJ     COOL3_26  -12.08  -12.30  -12.15  -11.63  -10.76   -9.56
SO YBADJ     COOL3_26   21.90   38.12   53.18   66.62   78.04   87.09
SO YBADJ     COOL3_26   93.49   97.05   10.39   -4.85   23.03    5.35
SO YBADJ     COOL3_26  -12.50  -29.97   44.49   28.69   12.02   -5.02
SO YBADJ     COOL3_26  -21.90  -38.12  -53.18  -66.62  -78.04  -87.09
SO YBADJ     COOL3_26  -93.49  -97.05  -97.67  -95.31  -90.06  -82.07
SO YBADJ     COOL3_26  -71.59  -58.94  -44.49  -28.69  -12.02    5.02

SO BUILDHGT FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3    0.00    0.00    0.00    0.00    0.00   26.82
SO BUILDHGT FULHEAT3   26.82   26.82   31.39   31.39   31.39   31.39
SO BUILDHGT FULHEAT3   31.39    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3    0.00    0.00    0.00    0.00    0.00   25.00
SO BUILDWID FULHEAT3   26.64   27.47   41.50   43.16   43.51   42.54
SO BUILDWID FULHEAT3   43.42    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3    0.00    0.00    0.00    0.00    0.00   27.46
SO BUILDLEN FULHEAT3   27.47   26.64   30.44   24.57   17.96   10.80
SO BUILDLEN FULHEAT3   16.56    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00 -146.49
SO XBADJ    FULHEAT3 -147.95 -144.92 -102.79 -104.28 -102.60 -143.85
SO XBADJ    FULHEAT3  -96.66    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00   20.00
SO YBADJ    FULHEAT3   -3.36  -26.61   33.12   17.41    1.18  -14.66
SO YBADJ    FULHEAT3  -30.92    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00

** FPL WEST COUNTY UNIT 1 AND 2 SOURCES

   LOCATION FPLWC1A POINT 562217.400 2953555.830 4.000
   LOCATION FPLWC1B POINT 562216.490 2953461.530 4.000
   LOCATION FPLWC1C POINT 562215.370 2953416.640 4.000
   LOCATION FPLWC2A POINT 562210.050 2953149.570 4.000
   LOCATION FPLWC2B POINT 562208.630 2953056.360 4.000
   LOCATION FPLWC2C POINT 562207.660 2953010.730 4.000
   LOCATION FULHEAT1 POINT 562195.690 2953700.000 4.000
   LOCATION FULHEAT2 POINT 562195.690 2953317.000 4.000
   LOCATION COOL1_01 POINT 562263.110 2953601.650 4.000
   LOCATION COOL1_02 POINT 562264.070 2953584.680 4.000
   LOCATION COOL1_03 POINT 562263.180 2953568.780 4.000
   LOCATION COOL1_04 POINT 562262.900 2953551.740 4.000
   LOCATION COOL1_05 POINT 562261.390 2953535.850 4.000
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LOCATION COOL1_06 POINT 562261.730 2953519.620 4.000
LOCATION COOL1_07 POINT 562262.060 2953502.920 4.000
LOCATION COOL1_08 POINT 562261.160 2953485.700 4.000
LOCATION COOL1_09 POINT 562261.510 2953470.080 4.000
LOCATION COOL1_10 POINT 562261.230 2953453.560 4.000
LOCATION COOL1_11 POINT 562260.950 2953437.670 4.000
LOCATION COOL1_12 POINT 562260.100 2953421.080 4.000
LOCATION COOL1_13 POINT 562261.040 2953403.580 4.000
LOCATION COOL1_14 POINT 562279.160 2953601.940 4.000
LOCATION COOL1_15 POINT 562278.880 2953584.990 4.000
LOCATION COOL1_16 POINT 562278.610 2953568.630 4.000
LOCATION COOL1_17 POINT 562278.200 2953551.910 4.000
LOCATION COOL1_18 POINT 562278.540 2953535.260 4.000
LOCATION COOL1_19 POINT 562277.640 2953518.300 4.000
LOCATION COOL1_20 POINT 562277.990 2953502.670 4.000
LOCATION COOL1_21 POINT 562276.980 2953486.120 4.000
LOCATION COOL1_22 POINT 562276.700 2953470.200 4.000
LOCATION COOL1_23 POINT 562276.520 2953452.500 4.000
LOCATION COOL1_24 POINT 562275.960 2953437.760 4.000
LOCATION COOL1_25 POINT 562275.600 2953421.000 4.000
LOCATION COOL1_26 POINT 562275.050 2953403.860 4.000
LOCATION COOL2_01 POINT 562253.160 2953199.640 4.000
LOCATION COOL2_02 POINT 562253.350 2953181.920 4.000
LOCATION COOL2_03 POINT 562253.530 2953166.370 4.000
LOCATION COOL2_04 POINT 562253.260 2953150.920 4.000
LOCATION COOL2_05 POINT 562253.450 2953134.920 4.000
LOCATION COOL2_06 POINT 562253.170 2953117.320 4.000
LOCATION COOL2_07 POINT 562252.890 2953101.130 4.000
LOCATION COOL2_08 POINT 562252.610 2953082.680 4.000
LOCATION COOL2_09 POINT 562252.810 2953066.480 4.000
LOCATION COOL2_10 POINT 562252.060 2953051.410 4.000
LOCATION COOL2_11 POINT 562252.720 2953034.940 4.000
LOCATION COOL2_12 POINT 562253.040 2953018.870 4.000
LOCATION COOL2_13 POINT 562252.280 2953001.090 4.000
LOCATION COOL2_14 POINT 562268.040 2953199.560 4.000
LOCATION COOL2_15 POINT 562267.760 2953181.390 4.000
LOCATION COOL2_16 POINT 562268.420 2953166.460 4.000
LOCATION COOL2_17 POINT 562268.140 2953150.900 4.000
LOCATION COOL2_18 POINT 562268.330 2953134.760 4.000
LOCATION COOL2_19 POINT 562268.050 2953117.030 4.000
LOCATION COOL2_20 POINT 562267.770 2953101.300 4.000
LOCATION COOL2_21 POINT 562267.500 2953082.910 4.000
LOCATION COOL2_22 POINT 562267.690 2953066.890 4.000
LOCATION COOL2_23 POINT 562267.690 2953050.880 4.000
LOCATION COOL2_24 POINT 562267.690 2953033.880 4.000
LOCATION COOL2_25 POINT 562267.690 2953016.880 4.000
LOCATION COOL2_26 POINT 562267.690 2953000.880 4.000

SRCPARAM FPLWC1A  4.11    45.4   447.0 20.36 6.71
SRCPARAM FPLWC1B  4.11    45.4   447.0 20.36 6.71
SRCPARAM FPLWC1C  4.11    45.4   447.0 20.26 6.71
SRCPARAM FPLWC2A  4.11    45.4   447.0 20.36 6.71
SRCPARAM FPLWC2B  4.11    45.4   447.0 20.36 6.71
SRCPARAM FPLWC2C  4.11    45.4   447.0 20.26 6.71
SRCPARAM FULHEAT1 0.00252 9.14   533.2 16.15 0.305
SRCPARAM FULHEAT2 0.00252 9.14   533.2 16.15 0.305
SRCPARAM COOL1_01 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_02 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_03 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_04 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_05 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_06 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_07 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_08 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_09 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_10 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_11 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_12 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_13 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_14 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_15 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_16 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_17 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_18 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_19 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_20 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_21 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_22 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_23 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_24 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_25 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_26 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL2_01 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL2_02 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL2_03 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL2_04 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL2_05 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL2_06 0.00565 19.202 309.2 7.17 10.668
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   SRCPARAM COOL2_07 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_08 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_09 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_10 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_11 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_12 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_13 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_14 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_15 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_16 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_17 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_18 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_19 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_20 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_21 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_22 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_23 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_24 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_25 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_26 0.00565 19.202 309.2 7.17 10.668

** BUILDING DOWNWASH FOR FPL WEST COUNTY UNIT 1 AND 2 SOURCES

SO BUILDHGT FPLWC1A    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC1A    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC1A    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC1A    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC1A    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC1A    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID FPLWC1A    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID FPLWC1A    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID FPLWC1A    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID FPLWC1A    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID FPLWC1A    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID FPLWC1A    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN FPLWC1A    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN FPLWC1A    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN FPLWC1A    39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN FPLWC1A    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN FPLWC1A    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN FPLWC1A    39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    FPLWC1A   -13.31  -21.39  -28.82  -35.38  -40.86  -45.10
SO XBADJ    FPLWC1A   -47.98  -49.39  -49.30  -49.29  -47.95  -45.16
SO XBADJ    FPLWC1A   -41.00  -35.59  -29.10  -21.72  -13.69   -5.24
SO XBADJ    FPLWC1A    -3.26   -1.91   -0.51    0.90    2.29    3.61
SO XBADJ    FPLWC1A     4.82    5.88    6.76    5.87    4.62    3.23
SO XBADJ    FPLWC1A     1.74    0.20   -1.34   -2.85   -4.27  -99.58
SO YBADJ    FPLWC1A    27.58   26.29   24.20   21.37   17.90   13.88
SO YBADJ    FPLWC1A     9.44    4.71   -0.16   -5.03   -9.74  -14.15
SO YBADJ    FPLWC1A   -18.14  -21.58  -24.36  -26.40  -27.63  -28.03
SO YBADJ    FPLWC1A   -27.58  -26.29  -24.20  -21.37  -17.90  -13.88
SO YBADJ    FPLWC1A    -9.44   -4.71    0.16    5.03    9.74   14.15
SO YBADJ    FPLWC1A    18.14   21.58   24.36   26.40   27.63   29.79


SO BUILDHGT FPLWC1B    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC1B    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC1B    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC1B    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC1B    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC1B    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID FPLWC1B    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID FPLWC1B    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID FPLWC1B    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID FPLWC1B    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID FPLWC1B    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID FPLWC1B    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN FPLWC1B    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN FPLWC1B    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN FPLWC1B    39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN FPLWC1B    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN FPLWC1B    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN FPLWC1B    39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    FPLWC1B   -13.18  -21.42  -29.00  -35.71  -41.33  -45.70
SO XBADJ    FPLWC1B   -48.67  -50.17  -50.14  -50.17  -48.84  -46.03
SO XBADJ    FPLWC1B   -41.83  -36.35  -29.76  -22.28  -14.11   -5.52
SO XBADJ    FPLWC1B    -3.38   -1.89   -0.33    1.23    2.76    4.20
SO XBADJ    FPLWC1B     5.52    6.66    7.61    6.75    5.51    4.10
SO XBADJ    FPLWC1B     2.57    0.96   -0.68   -2.30   -3.85   -5.28
SO YBADJ    FPLWC1B    28.46   27.18   25.07   22.20   18.65   14.54
SO YBADJ    FPLWC1B     9.99    5.13    0.12   -4.90   -9.77  -14.34
SO YBADJ    FPLWC1B   -18.47  -22.04  -24.95  -27.09  -28.42  -28.88
SO YBADJ    FPLWC1B   -28.46  -27.18  -25.07  -22.20  -18.65  -14.54
SO YBADJ    FPLWC1B    -9.99   -5.13   -0.12    4.90    9.77   14.34
SO YBADJ    FPLWC1B    18.47   22.04   24.95   27.09   28.42   28.88


SO BUILDHGT FPLWC1C    31.39   31.39   31.39   31.39   31.39   31.39
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SO BUILDHGT FPLWC1C    31.39   31.39   26.82   31.39   31.39   31.39
SO BUILDHGT FPLWC1C    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC1C    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC1C    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC1C    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID FPLWC1C    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID FPLWC1C    24.57   17.96   15.85   16.56   23.30   29.34
SO BUILDWID FPLWC1C    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID FPLWC1C    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID FPLWC1C    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID FPLWC1C    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN FPLWC1C    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN FPLWC1C    43.16   43.51   22.55   43.42   43.33   41.93
SO BUILDLEN FPLWC1C    39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN FPLWC1C    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN FPLWC1C    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN FPLWC1C    39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    FPLWC1C    31.22  -22.09  -29.42  -35.85  -41.20  -45.29
SO XBADJ    FPLWC1C   -48.01  -49.26 -119.00  -48.87  -47.41  -67.51
SO XBADJ    FPLWC1C   -69.82  -34.76  -68.08  -64.07  -58.12  -50.41
SO XBADJ    FPLWC1C   -47.79   -1.21    0.08    1.38    2.63    3.80
SO XBADJ    FPLWC1C     4.85    5.76    6.49    5.45    4.07   25.58
SO XBADJ    FPLWC1C    30.57   34.63   37.64   -3.74   40.17   39.61
SO YBADJ    FPLWC1C    35.15   25.74   23.53   20.61   17.07   13.00
SO YBADJ    FPLWC1C     8.55    3.83  -11.18   -5.81  -10.44   25.10
SO YBADJ    FPLWC1C    16.64  -21.91   -1.53  -10.69  -19.52  -27.76
SO YBADJ    FPLWC1C   -35.15  -25.74  -23.53  -20.61  -17.07  -13.00
SO YBADJ    FPLWC1C    -8.55   -3.83    1.01    5.81   10.44  -25.10
SO YBADJ    FPLWC1C   -16.64   -7.67    1.53   26.43   19.52   27.76

SO BUILDHGT FPLWC2A    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC2A    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC2A    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC2A    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC2A    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC2A    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID FPLWC2A    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID FPLWC2A    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID FPLWC2A    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID FPLWC2A    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID FPLWC2A    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID FPLWC2A    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN FPLWC2A    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN FPLWC2A    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN FPLWC2A    39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN FPLWC2A    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN FPLWC2A    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN FPLWC2A    39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    FPLWC2A  -105.09 -109.15  -27.86  -34.28  -39.67  -43.85
SO XBADJ    FPLWC2A   -46.70  -48.13  -48.09  -48.17  -46.96  -44.33
SO XBADJ    FPLWC2A   -40.34  -35.14  -28.86  -21.71  -13.89   -5.66
SO XBADJ    FPLWC2A    -3.88   -2.72   -1.48   -0.20    1.10    2.35
SO XBADJ    FPLWC2A     3.54    4.62    5.56    4.75    3.63    2.40
SO XBADJ    FPLWC2A     1.09   -0.25   -1.58   -2.87   -4.06   -5.14
SO YBADJ    FPLWC2A    12.40   -4.60   23.36   20.72   17.44   13.64
SO YBADJ    FPLWC2A     9.42    4.92    0.26   -4.40   -8.93  -13.19
SO YBADJ    FPLWC2A   -17.04  -20.38  -23.10  -25.12  -26.37  -26.83
SO YBADJ    FPLWC2A   -26.46  -25.30  -23.36  -20.72  -17.44  -13.64
SO YBADJ    FPLWC2A    -9.42   -4.92   -0.26    4.40    8.93   13.19
SO YBADJ    FPLWC2A    17.04   20.38   23.10   25.12   26.37   26.83

SO BUILDHGT FPLWC2B    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC2B    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC2B    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC2B    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC2B    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT FPLWC2B    31.39   31.39   31.39   31.39   31.39   31.39
SO BUILDWID FPLWC2B    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID FPLWC2B    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID FPLWC2B    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDWID FPLWC2B    43.42   43.33   41.93   39.26   35.39   30.44
SO BUILDWID FPLWC2B    24.57   17.96   10.80   16.56   23.30   29.34
SO BUILDWID FPLWC2B    34.48   38.57   41.50   43.16   43.51   42.54
SO BUILDLEN FPLWC2B    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN FPLWC2B    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN FPLWC2B    39.26   35.39   30.44   24.57   17.96   10.80
SO BUILDLEN FPLWC2B    16.56   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN FPLWC2B    43.16   43.51   42.54   43.42   43.33   41.93
SO BUILDLEN FPLWC2B    39.26   35.39   30.44   24.57   17.96   10.80
SO XBADJ    FPLWC2B   -13.05  -21.07  -28.45  -34.96  -40.42  -44.64
SO XBADJ    FPLWC2B   -47.51  -48.93  -48.87  -48.89  -47.61  -44.88
SO XBADJ    FPLWC2B   -40.78  -35.45 -108.87 -108.81   31.48  -98.87
SO XBADJ    FPLWC2B    -3.51   -2.23   -0.89    0.48    1.84    3.14
SO XBADJ    FPLWC2B     4.35    5.42    6.33    5.48    4.28    2.95
SO XBADJ    FPLWC2B     1.53    0.07   -1.40   -2.83   -4.16   -5.38
SO YBADJ    FPLWC2B    27.19   25.94   23.91   21.16   17.76   13.82
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SO YBADJ     FPLWC2B      9.46      4.81      0.02     -4.77     -9.42    -13.78
SO YBADJ     FPLWC2B    -17.72    -21.13     24.73      8.10    -35.61    -25.41
SO YBADJ     FPLWC2B    -27.19    -25.94    -23.91    -21.16    -17.76    -13.82
SO YBADJ     FPLWC2B     -9.46     -4.81     -0.02      4.77      9.42     13.78
SO YBADJ     FPLWC2B     17.72     21.13     23.89     25.93     27.18     27.60

SO BUILDHGT  FPLWC2C     31.39     31.39     31.39     31.39     31.39     31.39
SO BUILDHGT  FPLWC2C     31.39     31.39     31.39     31.39     31.39     31.39
SO BUILDHGT  FPLWC2C     31.39     31.39     31.39     31.39     31.39     31.39
SO BUILDHGT  FPLWC2C     31.39     31.39     31.39     31.39     31.39     31.39
SO BUILDHGT  FPLWC2C     31.39     31.39     31.39     31.39     31.39     31.39
SO BUILDHGT  FPLWC2C     31.39     31.39     31.39     31.39     31.39     31.39
SO BUILDWID  FPLWC2C     43.42     43.33     41.93     39.26     35.39     30.44
SO BUILDWID  FPLWC2C     24.57     17.96     10.80     16.56     23.30     29.34
SO BUILDWID  FPLWC2C     34.48     38.57     41.50     43.16     43.51     42.54
SO BUILDWID  FPLWC2C     43.42     43.33     41.93     39.26     35.39     30.44
SO BUILDWID  FPLWC2C     24.57     17.96     10.80     16.56     23.30     29.34
SO BUILDWID  FPLWC2C     34.48     38.57     41.50     43.16     43.51     42.54
SO BUILDLEN  FPLWC2C     16.56     23.30     29.34     34.48     38.57     41.50
SO BUILDLEN  FPLWC2C     43.16     43.51     42.54     43.42     43.33     41.93
SO BUILDLEN  FPLWC2C     39.26     35.39     30.44     24.57     17.96     10.80
SO BUILDLEN  FPLWC2C     16.56     23.30     29.34     34.48     38.57     41.50
SO BUILDLEN  FPLWC2C     43.16     43.51     42.54     43.42     43.33     41.93
SO BUILDLEN  FPLWC2C     39.26     35.39     30.44     24.57     17.96     10.80
SO XBADJ     FPLWC2C     32.05    -21.28    -28.55    -34.94    -40.28    -44.39
SO XBADJ     FPLWC2C    -47.15    -48.48    -48.34    -48.30    -46.97    -44.21
SO XBADJ     FPLWC2C    -40.11    -34.79    -68.07    -21.17    -13.29   -144.50
SO XBADJ     FPLWC2C    -48.62     -2.02     -0.79      0.46      1.70      2.89
SO XBADJ     FPLWC2C      3.99      4.97      5.80      4.88      3.63      2.28
SO XBADJ     FPLWC2C      0.85     -0.60     -2.03     -3.40     40.60     40.25
SO YBADJ     FPLWC2C     34.15     25.30     23.24     20.48     17.09     13.19
SO YBADJ     FPLWC2C      8.88      4.31     -0.40     -5.09     -9.63    -13.88
SO YBADJ     FPLWC2C    -17.70    -20.99     -0.24    -25.57    -26.73    -24.44
SO YBADJ     FPLWC2C    -34.15    -25.30    -23.24    -20.48    -17.09    -13.19
SO YBADJ     FPLWC2C     -8.88     -4.31      0.40      5.09      9.63     13.88
SO YBADJ     FPLWC2C     17.70     20.99     23.64     25.57     18.30     26.63

SO BUILDHGT  FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDHGT  FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDHGT  FULHEAT2    26.82     26.82      0.00     31.39     31.39     31.39
SO BUILDHGT  FULHEAT2    31.39      0.00      0.00      0.00      0.00      0.00
SO BUILDHGT  FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDHGT  FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDWID  FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDWID  FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDWID  FULHEAT2    26.64     27.47      0.00     43.16     43.51     42.54
SO BUILDWID  FULHEAT2    43.42      0.00      0.00      0.00      0.00      0.00
SO BUILDWID  FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDWID  FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDLEN  FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDLEN  FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDLEN  FULHEAT2    27.47     26.64      0.00     24.57     17.96     10.80
SO BUILDLEN  FULHEAT2    16.56      0.00      0.00      0.00      0.00      0.00
SO BUILDLEN  FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDLEN  FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO XBADJ     FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO XBADJ     FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO XBADJ     FULHEAT2  -138.04   -137.67      0.00   -107.73   -152.83   -150.05
SO XBADJ     FULHEAT2  -149.33      0.00      0.00      0.00      0.00      0.00
SO XBADJ     FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO XBADJ     FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO YBADJ     FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO YBADJ     FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO YBADJ     FULHEAT2    11.17    -10.58      0.00     26.14     17.16     -8.08
SO YBADJ     FULHEAT2   -33.07      0.00      0.00      0.00      0.00      0.00
SO YBADJ     FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00
SO YBADJ     FULHEAT2     0.00      0.00      0.00      0.00      0.00      0.00

SO BUILDHGT  FULHEAT1    31.39      0.00      0.00      0.00      0.00      0.00
SO BUILDHGT  FULHEAT1     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDHGT  FULHEAT1     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDHGT  FULHEAT1     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDHGT  FULHEAT1     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDHGT  FULHEAT1     0.00      0.00      0.00      0.00     31.39     31.39
SO BUILDWID  FULHEAT1    43.42      0.00      0.00      0.00      0.00      0.00
SO BUILDWID  FULHEAT1     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDWID  FULHEAT1     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDWID  FULHEAT1     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDWID  FULHEAT1     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDWID  FULHEAT1     0.00      0.00      0.00      0.00     43.51     42.54
SO BUILDLEN  FULHEAT1    16.56      0.00      0.00      0.00      0.00      0.00
SO BUILDLEN  FULHEAT1     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDLEN  FULHEAT1     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDLEN  FULHEAT1     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDLEN  FULHEAT1     0.00      0.00      0.00      0.00      0.00      0.00
SO BUILDLEN  FULHEAT1     0.00      0.00      0.00      0.00     17.96     10.80
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SO XBADJ     FULHEAT1 -151.52    0.00    0.00    0.00    0.00    0.00
SO XBADJ     FULHEAT1    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ     FULHEAT1    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ     FULHEAT1    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ     FULHEAT1    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ     FULHEAT1    0.00    0.00    0.00    0.00 -150.02 -149.73
SO YBADJ     FULHEAT1  -18.84    0.00    0.00    0.00    0.00    0.00
SO YBADJ     FULHEAT1    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ     FULHEAT1    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ     FULHEAT1    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ     FULHEAT1    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ     FULHEAT1    0.00    0.00    0.00    0.00   31.29    6.32

SO BUILDHGT COOL1_01    14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_01    31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_01    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_01    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_01    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_01    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_01    62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_01    24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_01   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_01    62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_01   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_01   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_01   215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL1_01    43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_01   157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_01   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_01   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_01   157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_01 -203.53 -169.03 -173.66  -99.86 -105.33 -107.60
SO XBADJ    COOL1_01 -106.60  -45.73  -10.31   -8.06   -9.29  -10.24
SO XBADJ    COOL1_01  -10.88  -11.19  -11.16  -10.79  -10.09   -9.08
SO XBADJ    COOL1_01  -12.38  -15.81  -18.76  -21.14  -22.88  -23.93
SO XBADJ    COOL1_01  -24.24  -23.82  -22.68  -54.32  -88.04 -119.09
SO XBADJ    COOL1_01 -146.51 -169.49 -187.32 -199.46 -205.53 -205.36
SO YBADJ    COOL1_01  -23.13   23.06   -4.62   26.93   12.18   -2.95
SO YBADJ    COOL1_01  -17.99  -97.72  -98.14  -95.57  -90.11  -81.90
SO YBADJ    COOL1_01  -71.21  -58.35  -43.72  -27.76  -10.95    6.18
SO YBADJ    COOL1_01   23.13   39.37   54.42   67.82   79.15   88.08
SO YBADJ    COOL1_01   94.33   97.72   98.14   95.57   90.11   81.90
SO YBADJ    COOL1_01   71.21   58.35   43.72   27.76   10.95   -6.18


SO BUILDHGT COOL1_02    14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_02    31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_02    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_02    14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL1_02    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_02    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_02    62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_02    24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_02   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_02    62.37   97.33  129.33  157.39   35.39   30.44
SO BUILDWID COOL1_02   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_02   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_02   215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL1_02    43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_02   157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_02   215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL1_02   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_02   157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_02 -186.99 -153.41 -159.45 -160.63  -95.16  -99.95
SO XBADJ    COOL1_02 -101.70 -100.36  -11.27  -11.95  -16.00  -19.56
SO XBADJ    COOL1_02  -22.52  -24.81  -26.33  -27.06  -26.97  -26.05
SO XBADJ    COOL1_02  -28.93  -31.43  -32.98  -33.53   56.58   58.45
SO XBADJ    COOL1_02  -29.14  -25.82  -21.72  -50.42  -81.33 -109.77
SO XBADJ    COOL1_02 -134.87 -155.88 -172.14 -183.18 -188.65 -188.39
SO YBADJ    COOL1_02  -19.24   29.77    4.70  -20.51   25.79   12.23
SO YBADJ    COOL1_02   -1.71  -15.60  -81.17  -79.03  -74.49  -67.68
SO YBADJ    COOL1_02  -58.82  -48.17  -36.06  -22.86   -8.95    5.22
SO YBADJ    COOL1_02   19.24   32.67   45.11   56.17  -25.79  -12.23
SO YBADJ    COOL1_02   78.06   80.84   81.17   79.03   74.49   67.68
SO YBADJ    COOL1_02   58.82   48.17   36.06   22.86    8.95   -5.22


SO BUILDHGT COOL1_03    14.94   31.39   31.39   31.39   14.94   31.39
SO BUILDHGT COOL1_03    31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_03    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_03    14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL1_03    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_03    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_03    62.37   43.33   41.93   39.26  180.68   30.44
SO BUILDWID COOL1_03    24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_03   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_03    62.37   97.33  129.33  157.39  180.68   30.44
SO BUILDWID COOL1_03   210.24  215.62  214.45  215.91  211.84  201.33
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SO BUILDWID COOL1_03  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_03  215.91   23.30   29.34   34.48  162.46   41.50
SO BUILDLEN COOL1_03   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_03  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_03  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL1_03  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_03  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_03 -171.17 -138.17 -145.23 -147.88 -118.50  -91.23
SO XBADJ    COOL1_03  -95.42  -96.72  -10.38  -13.83  -20.60  -26.74
SO XBADJ    COOL1_03  -32.06  -36.41  -39.66  -41.70  -42.47  -41.95
SO XBADJ    COOL1_03  -44.74  -46.68  -47.20  -46.28  -43.96   49.73
SO XBADJ    COOL1_03  -35.42  -29.46  -22.61  -48.54  -76.73 -102.59
SO XBADJ    COOL1_03 -125.33 -144.27 -158.82 -168.54 -173.15 -172.49
SO YBADJ    COOL1_03  -17.35   34.37   11.88  -10.97  -53.93   25.55
SO YBADJ    COOL1_03   12.93   -0.09  -65.27  -63.22  -59.24  -53.47
SO YBADJ    COOL1_03  -46.07  -37.27  -27.34  -16.58   -5.32    6.11
SO YBADJ    COOL1_03   17.35   28.07   37.93   46.64   53.93  -25.55
SO YBADJ    COOL1_03   63.42   65.34   65.27   63.22   59.24   53.47
SO YBADJ    COOL1_03   46.07   37.27   27.34   16.58    5.32   -6.11


SO BUILDHGT COOL1_04   14.94   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL1_04   14.94   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL1_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_04   62.37   43.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL1_04  210.24   17.96   10.80   16.56   23.30  201.33
SO BUILDWID COOL1_04  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_04   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_04  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_04  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_04  215.91   23.30   29.34   34.48   38.57  135.28
SO BUILDLEN COOL1_04  104.00   43.51   42.54   43.42   43.33  129.33
SO BUILDLEN COOL1_04  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_04  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_04  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_04  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_04 -154.34 -165.30 -130.33 -134.65 -134.87  -86.22
SO XBADJ    COOL1_04  -62.49  -93.49  -94.80  -94.81  -92.11  -35.01
SO XBADJ    COOL1_04  -42.80  -49.29  -54.28  -57.62  -59.20  -58.99
SO XBADJ    COOL1_04  -61.57  -62.79  -62.09  -59.51  -55.13  -49.06
SO XBADJ    COOL1_04  -41.51  -32.69  -22.89  -45.86  -71.16  -94.31
SO XBADJ    COOL1_04 -114.59 -131.39 -144.20 -152.63 -156.42 -155.45
SO YBADJ    COOL1_04  -14.67   24.19   20.15   -0.24  -20.62  -44.96
SO YBADJ    COOL1_04  -47.51   16.64    3.93   -8.90  -21.46  -38.57
SO YBADJ    COOL1_04  -32.84  -26.11  -18.58  -10.49   -2.08    6.39
SO YBADJ    COOL1_04   14.67   22.50   29.65   35.90   41.05   44.96
SO YBADJ    COOL1_04   47.51   48.61   48.23   46.39   43.13   38.57
SO YBADJ    COOL1_04   32.84   26.11   18.58   10.49    2.08   -6.39


SO BUILDHGT COOL1_05   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_05   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_05   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_05   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_05   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL1_05   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_05   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_05  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL1_05   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_05   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_05  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL1_05   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_05  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL1_05  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL1_05   39.26  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_05  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_05  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL1_05   39.26  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_05 -138.43 -149.85 -115.82 -121.50 -123.50 -121.74
SO XBADJ    COOL1_05  -55.64  -32.61   -8.59  -96.08  -96.12  -93.25
SO XBADJ    COOL1_05  -87.54  -60.49  -67.28  -72.03  -74.59  -74.89
SO XBADJ    COOL1_05  -77.48  -78.23  -76.61  -72.66  -66.50  -58.32
SO XBADJ    COOL1_05  -48.36  -36.94  -24.40  -44.58  -67.15   51.32
SO XBADJ    COOL1_05   48.28 -120.19 -131.20 -138.21 -141.03 -139.56
SO YBADJ    COOL1_05  -13.40   28.21   26.79    8.82   -9.42  -27.37
SO YBADJ    COOL1_05  -33.09  -33.22  -32.34    7.01   -6.01  -18.85
SO YBADJ    COOL1_05  -31.11  -14.73   -9.33   -3.64    2.16    7.90
SO YBADJ    COOL1_05   13.40   18.48   23.01   26.84   29.85   31.96
SO YBADJ    COOL1_05   33.09   33.22   32.34   30.48   27.69   18.85
SO YBADJ    COOL1_05   31.11   14.73    9.33    3.64   -2.16   -7.90


SO BUILDHGT COOL1_06   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_06   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL1_06   31.39   31.39   14.94   14.94   14.94   14.94
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SO BUILDHGT COOL1_06    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_06    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_06    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_06    62.37    43.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL1_06   210.24   215.62   214.45   215.91    23.30    29.34
SO BUILDWID COOL1_06    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL1_06    62.37    97.33   129.33   157.39   180.68   198.48
SO BUILDWID COOL1_06   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_06    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_06   215.91    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN COOL1_06   104.00    69.55    32.99    62.37    43.33    41.93
SO BUILDLEN COOL1_06    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL1_06   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL1_06   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_06    39.26    35.39   198.48   210.24   215.62   214.45
SO XBADJ    COOL1_06  -122.51  -134.72  -101.93  -109.29  -113.33  -113.92
SO XBADJ    COOL1_06   -50.40   -30.13    -8.93   -20.94  -101.99  -101.66
SO XBADJ    COOL1_06   -98.23   -91.82   -81.51   -87.40   -90.63   -91.11
SO XBADJ    COOL1_06   -93.41   -93.37   -90.49   -84.87   -76.67   -66.14
SO XBADJ    COOL1_06   -53.59   -39.42   -24.06   -41.43   -61.28   -79.27
SO XBADJ    COOL1_06    58.98    56.44  -116.97  -122.84  -124.99  -123.33
SO YBADJ    COOL1_06   -10.24    34.08    35.20    19.51     3.23   -13.15
SO YBADJ    COOL1_06   -17.72   -17.18   -16.11   -14.55     9.13    -4.96
SO YBADJ    COOL1_06   -18.90   -32.26    -1.51     1.60     4.65     7.56
SO YBADJ    COOL1_06    10.24    12.61    14.60    16.15    17.20    17.73
SO YBADJ    COOL1_06    17.72    17.18    16.11    14.55    12.55    10.17
SO YBADJ    COOL1_06    18.90    32.26     1.51    -1.60    -4.65    -7.56

SO BUILDHGT COOL1_07    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL1_07    31.39    14.94    14.94    14.94    14.94    31.39
SO BUILDHGT COOL1_07    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_07    14.94    14.94    14.94    31.39    14.94    14.94
SO BUILDHGT COOL1_07    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_07    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_07    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL1_07    24.57   215.62   214.45   215.91   211.84    29.34
SO BUILDWID COOL1_07    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL1_07    62.37    97.33   129.33    39.26   180.68   198.48
SO BUILDWID COOL1_07   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_07   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_07   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL1_07    43.16    69.55    32.99    62.37    97.33    41.93
SO BUILDLEN COOL1_07    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL1_07   215.91   211.84   201.33    34.48   162.46   135.28
SO BUILDLEN COOL1_07   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_07   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL1_07  -106.12  -102.89  -127.49   -96.71  -102.85  -105.86
SO XBADJ    COOL1_07  -105.65   -27.55    -9.26   -24.17   -42.07  -110.29
SO XBADJ    COOL1_07  -109.22  -104.83   -96.14  -103.20  -107.14  -107.82
SO XBADJ    COOL1_07  -109.79  -108.95  -104.79    62.23   -87.15   -74.20
SO XBADJ    COOL1_07   -59.00   -42.00   -23.73   -38.20   -55.26   -70.63
SO XBADJ    COOL1_07   -83.86   -94.54  -102.34  -107.04  -108.48  -106.63
SO YBADJ    COOL1_07    -7.02    -6.59    20.83    30.50    16.24     1.48
SO YBADJ    COOL1_07   -13.32    -0.67     0.59     1.84     3.03     9.34
SO YBADJ    COOL1_07    -6.32   -21.78     6.56     7.00     7.22     7.23
SO YBADJ    COOL1_07     7.02     6.59     5.97   -30.50     4.19     3.10
SO YBADJ    COOL1_07     1.92     0.67    -0.59    -1.84    -3.03    -4.13
SO YBADJ    COOL1_07    -5.10    -5.92    -6.56    -7.00    -7.22    -7.23

SO BUILDHGT COOL1_08    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL1_08    31.39    31.39    14.94    14.94    14.94    31.39
SO BUILDHGT COOL1_08    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL1_08    14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL1_08    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_08    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_08    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL1_08    24.57    17.96   214.45   215.91   211.84    29.34
SO BUILDWID COOL1_08    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL1_08    62.37    97.33   129.33   157.39    35.39    30.44
SO BUILDWID COOL1_08   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_08   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_08   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL1_08    43.16    43.51    32.99    62.37    97.33    41.93
SO BUILDLEN COOL1_08    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL1_08   215.91   211.84   201.33   184.70    38.57    41.50
SO BUILDLEN COOL1_08   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_08   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL1_08   -89.00   -86.40  -112.12  -118.19   -91.09   -96.47
SO XBADJ    COOL1_08   -98.92   -98.36    -8.36   -26.27   -47.12  -118.12
SO XBADJ    COOL1_08  -119.60  -117.44  -111.71  -119.08  -123.94  -125.04
SO XBADJ    COOL1_08  -126.91  -125.44  -120.15  -111.22    52.51    54.97
SO XBADJ    COOL1_08   -65.73   -45.88   -24.63   -36.10   -50.21   -62.80
SO XBADJ    COOL1_08   -73.48   -81.92   -87.88   -91.17   -91.68   -89.41
SO YBADJ    COOL1_08    -4.91    -1.55    28.66    11.30    28.85    15.94
SO YBADJ    COOL1_08     2.55   -10.91    17.81    18.95    19.52    24.70
SO YBADJ    COOL1_08     7.45   -10.02   -27.19    13.73    11.10     8.13
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SO YBADJ	COOL1_08	4.91	1.55	-1.86	-5.22	-28.85	-15.94
SO YBADJ	COOL1_08	-13.96	-16.13	-17.81	-18.95	-19.52	-19.49
SO YBADJ	COOL1_08	-18.87	-17.68	-15.95	-13.73	-11.10	-8.13

SO BUILDHGT	COOL1_09	14.94	14.94	14.94	31.39	31.39	31.39
SO BUILDHGT	COOL1_09	31.39	31.39	31.39	14.94	14.94	14.94
SO BUILDHGT	COOL1_09	31.39	31.39	31.39	14.94	14.94	14.94
SO BUILDHGT	COOL1_09	14.94	14.94	14.94	14.94	14.94	31.39
SO BUILDHGT	COOL1_09	14.94	14.94	14.94	14.94	14.94	14.94
SO BUILDHGT	COOL1_09	14.94	14.94	14.94	14.94	14.94	14.94
SO BUILDWID	COOL1_09	62.37	97.33	129.33	39.26	35.39	30.44
SO BUILDWID	COOL1_09	24.57	17.96	10.80	215.91	211.84	201.33
SO BUILDWID	COOL1_09	34.48	38.57	41.50	104.00	69.55	32.99
SO BUILDWID	COOL1_09	62.37	97.33	129.33	157.39	180.68	30.44
SO BUILDWID	COOL1_09	210.24	215.62	214.45	215.91	211.84	201.33
SO BUILDWID	COOL1_09	184.70	162.46	135.28	104.00	69.55	32.99
SO BUILDLEN	COOL1_09	215.91	211.84	201.33	34.48	38.57	41.50
SO BUILDLEN	COOL1_09	43.16	43.51	42.54	62.37	97.33	129.33
SO BUILDLEN	COOL1_09	39.26	35.39	30.44	210.24	215.62	214.45
SO BUILDLEN	COOL1_09	215.91	211.84	201.33	184.70	162.46	41.50
SO BUILDLEN	COOL1_09	104.00	69.55	32.99	62.37	97.33	129.33
SO BUILDLEN	COOL1_09	157.39	180.68	198.48	210.24	215.62	214.45
SO XBADJ	COOL1_09	-73.68	-71.84	-67.82	-106.45	-110.89	-88.96
SO XBADJ	COOL1_09	-93.90	-95.99	-95.17	-29.33	-52.79	-74.64
SO XBADJ	COOL1_09	-129.91	-129.63	-125.41	-133.88	-139.38	-140.65
SO XBADJ	COOL1_09	-142.23	-140.00	-133.51	-122.96	-108.68	47.46
SO XBADJ	COOL1_09	-70.74	-48.24	-24.28	-33.04	-44.54	-54.69
SO XBADJ	COOL1_09	-63.17	-69.73	-74.18	-76.37	-76.24	-73.79
SO YBADJ	COOL1_09	-1.86	4.12	9.98	21.61	5.79	29.65
SO YBADJ	COOL1_09	17.35	4.53	-8.43	34.27	34.08	32.84
SO YBADJ	COOL1_09	19.19	-0.25	-19.68	18.75	13.47	7.78
SO YBADJ	COOL1_09	1.86	-4.12	-9.98	-15.53	-20.61	-29.65
SO YBADJ	COOL1_09	-28.75	-31.57	-33.43	-34.27	-34.08	-32.84
SO YBADJ	COOL1_09	-30.61	-27.45	-23.45	-18.75	-13.47	-7.78

SO BUILDHGT	COOL1_10	14.94	14.94	14.94	31.39	31.39	31.39
SO BUILDHGT	COOL1_10	31.39	14.94	31.39	31.39	31.39	14.94
SO BUILDHGT	COOL1_10	31.39	31.39	31.39	31.39	14.94	14.94
SO BUILDHGT	COOL1_10	14.94	14.94	14.94	31.39	31.39	14.94
SO BUILDHGT	COOL1_10	14.94	14.94	14.94	14.94	14.94	14.94
SO BUILDHGT	COOL1_10	14.94	14.94	14.94	14.94	14.94	14.94
SO BUILDWID	COOL1_10	62.37	97.33	129.33	39.26	35.39	30.44
SO BUILDWID	COOL1_10	24.57	215.62	10.80	16.56	23.30	201.33
SO BUILDWID	COOL1_10	34.48	38.57	41.50	43.16	69.55	32.99
SO BUILDWID	COOL1_10	62.37	97.33	129.33	39.26	35.39	198.48
SO BUILDWID	COOL1_10	210.24	215.62	214.45	215.91	211.84	201.33
SO BUILDWID	COOL1_10	184.70	162.46	135.28	104.00	69.55	32.99
SO BUILDLEN	COOL1_10	215.91	211.84	201.33	34.48	38.57	41.50
SO BUILDLEN	COOL1_10	43.16	69.55	42.54	43.42	43.33	129.33
SO BUILDLEN	COOL1_10	39.26	35.39	30.44	24.57	215.62	214.45
SO BUILDLEN	COOL1_10	215.91	211.84	201.33	34.48	38.57	135.28
SO BUILDLEN	COOL1_10	104.00	69.55	32.99	62.37	97.33	129.33
SO BUILDLEN	COOL1_10	157.39	180.68	198.48	210.24	215.62	214.45
SO XBADJ	COOL1_10	-57.36	-56.22	-53.37	-93.62	-100.06	-103.47
SO XBADJ	COOL1_10	-103.73	-18.16	-94.89	-95.61	-93.61	-82.66
SO XBADJ	COOL1_10	-140.31	-142.11	-139.58	-132.82	-155.60	-157.18
SO XBADJ	COOL1_10	-158.55	-155.62	-147.95	59.14	61.49	-99.60
SO XBADJ	COOL1_10	-76.66	-51.39	-24.56	-30.45	-39.15	-46.67
SO XBADJ	COOL1_10	-52.76	-57.26	-60.01	-60.94	-60.02	-57.27
SO YBADJ	COOL1_10	0.74	9.51	17.99	32.01	18.26	3.96
SO YBADJ	COOL1_10	-10.46	47.79	8.09	-4.82	-17.58	47.29
SO YBADJ	COOL1_10	32.03	10.59	-11.18	-32.60	16.61	8.06
SO YBADJ	COOL1_10	-0.74	-9.51	-17.99	-32.01	-18.26	-39.23
SO YBADJ	COOL1_10	-44.18	-47.79	-49.95	-50.59	-49.70	-47.29
SO YBADJ	COOL1_10	-43.45	-38.28	-31.96	-24.66	-16.61	-8.06

SO BUILDHGT	COOL1_11	14.94	14.94	14.94	14.94	31.39	31.39
SO BUILDHGT	COOL1_11	31.39	31.39	14.94	31.39	31.39	31.39
SO BUILDHGT	COOL1_11	31.39	31.39	31.39	31.39	14.94	14.94
SO BUILDHGT	COOL1_11	14.94	14.94	14.94	14.94	31.39	31.39
SO BUILDHGT	COOL1_11	14.94	14.94	14.94	14.94	14.94	31.39
SO BUILDHGT	COOL1_11	31.39	14.94	14.94	14.94	14.94	14.94
SO BUILDWID	COOL1_11	62.37	97.33	129.33	157.39	35.39	30.44
SO BUILDWID	COOL1_11	24.57	17.96	214.45	16.56	23.30	29.34
SO BUILDWID	COOL1_11	34.48	38.57	41.50	43.16	69.55	32.99
SO BUILDWID	COOL1_11	62.37	97.33	129.33	157.39	35.39	30.44
SO BUILDWID	COOL1_11	210.24	215.62	214.45	215.91	211.84	29.34
SO BUILDWID	COOL1_11	34.48	162.46	135.28	104.00	69.55	32.99
SO BUILDLEN	COOL1_11	215.91	211.84	201.33	184.70	38.57	41.50
SO BUILDLEN	COOL1_11	43.16	43.51	32.99	43.42	43.33	41.93
SO BUILDLEN	COOL1_11	39.26	35.39	30.44	24.57	215.62	214.45
SO BUILDLEN	COOL1_11	215.91	211.84	201.33	184.70	38.57	41.50
SO BUILDLEN	COOL1_11	104.00	69.55	32.99	62.37	97.33	41.93
SO BUILDLEN	COOL1_11	39.26	180.68	198.48	210.24	215.62	214.45
SO XBADJ	COOL1_11	-41.67	-41.20	-39.47	-36.55	-89.63	-95.28

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SO XBADJ    COOL1_11  -98.03  -97.80   -8.15  -98.10  -98.78  -96.47
SO XBADJ    COOL1_11  -91.22 -154.10 -153.20 -147.65 -171.20 -173.07
SO XBADJ    COOL1_11 -174.25 -170.64 -161.85 -148.15   51.06   53.78
SO XBADJ    COOL1_11  -82.36  -54.42  -24.84  -27.97  -33.98   54.54
SO XBADJ    COOL1_11   51.96  -45.26  -46.39  -46.10  -44.42  -41.38
SO YBADJ    COOL1_11    3.22   14.68   25.70   35.93   30.26   17.58
SO YBADJ    COOL1_11    4.37   -8.97   65.84   10.88   -2.55  -15.90
SO YBADJ    COOL1_11  -28.77   21.01   -2.99  -26.91   19.65    8.34
SO YBADJ    COOL1_11   -3.22  -14.68  -25.70  -35.93  -30.26  -17.58
SO YBADJ    COOL1_11  -59.02  -63.39  -65.84  -66.29  -64.72   15.90
SO YBADJ    COOL1_11   28.77  -48.71  -40.14  -30.36  -19.65   -8.34

SO BUILDHGT COOL1_12   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_12   31.39   31.39   31.39   14.94   31.39   31.39
SO BUILDHGT COOL1_12   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL1_12   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_12   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_12   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_12   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_12   24.57   17.96   10.80  215.91   23.30   29.34
SO BUILDWID COOL1_12   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL1_12   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_12   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_12   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_12  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_12   43.16   43.51   42.54   62.37   43.33   41.93
SO BUILDLEN COOL1_12   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL1_12  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_12   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_12   39.26   35.39  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_12  -25.18  -25.32  -24.68  -23.30  -21.20  -18.47
SO XBADJ    COOL1_12  -91.56  -94.09  -93.75  -36.45 -103.66 -104.03
SO XBADJ    COOL1_12 -101.23  -95.36 -167.15 -162.95 -187.39 -189.65
SO XBADJ    COOL1_12 -190.73 -186.52 -176.65 -161.40 -141.26 -116.82
SO XBADJ    COOL1_12   48.40  -58.14  -25.69  -25.92  -29.11  -31.41
SO XBADJ    COOL1_12   61.98   59.98  -32.45  -30.80  -28.23  -24.79
SO YBADJ    COOL1_12    5.26   19.56   33.26   45.95   57.24   66.79
SO YBADJ    COOL1_12   19.67    7.22   -5.45   82.78   13.33   -1.11
SO YBADJ    COOL1_12  -15.52  -29.45    6.04  -20.43   23.36    9.19
SO YBADJ    COOL1_12   -5.26  -19.56  -33.26  -45.95  -57.24  -66.79
SO YBADJ    COOL1_12  -19.67  -79.58  -82.43  -82.78  -80.60  -75.98
SO YBADJ    COOL1_12   15.52   29.45  -49.17  -36.83  -23.36   -9.19

SO BUILDHGT COOL1_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_13   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_13   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL1_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_13   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL1_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_13   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_13  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL1_13   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL1_13   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_13  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL1_13  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_13  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_13  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL1_13   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL1_13  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_13  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL1_13  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_13   -8.11   -9.19  -10.00  -10.50  -10.68  -10.53
SO XBADJ    COOL1_13  -10.07   -9.30   -8.24  -96.11  -94.79 -113.59
SO XBADJ    COOL1_13 -113.20 -109.37 -102.22 -179.72 -204.79 -207.15
SO XBADJ    COOL1_13 -207.80 -202.65 -191.33 -174.21 -151.79 -124.75
SO XBADJ    COOL1_13  -93.93  -60.25  -24.75  -21.96  -22.24   48.65
SO XBADJ    COOL1_13  -20.78  -19.09  -16.82  -14.04  -10.83   -7.29
SO YBADJ    COOL1_13    9.23   26.43   42.82   57.91   71.25   82.42
SO YBADJ    COOL1_13   91.08   96.98   99.93   -0.88  -13.79   13.58
SO YBADJ    COOL1_13   -2.71  -18.92  -34.56  -15.33   25.48    8.25
SO YBADJ    COOL1_13   -9.23  -26.43  -42.82  -57.91  -71.25  -82.42
SO YBADJ    COOL1_13  -91.08  -96.98  -99.93  -99.85  -96.73   26.28
SO YBADJ    COOL1_13  -81.86  -70.55  -57.11  -41.93  -25.48   -8.25

SO BUILDHGT COOL1_14   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_14   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_14   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_14   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_14  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_14   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_14  210.24  215.62  214.45  215.91  211.84  201.33
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SO BUILDWID COOL1_14  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_14  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL1_14   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_14  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_14  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_14  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_14  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_14 -206.60 -201.79 -181.94 -183.55 -117.81 -121.65
SO XBADJ    COOL1_14 -121.78  -61.59  -26.36  -23.81  -24.27  -24.00
SO XBADJ    COOL1_14  -22.99  -21.28  -18.93  -16.00  -12.59   -8.79
SO XBADJ    COOL1_14   -9.31  -10.05  -10.49  -10.61  -10.40   -9.88
SO XBADJ    COOL1_14   -9.06   -7.96   -6.63  -38.56  -73.05 -105.33
SO XBADJ    COOL1_14 -134.41 -159.40 -179.55 -194.24 -203.03 -205.65
SO YBADJ    COOL1_14   -7.37  -24.39    9.14  -20.05   22.27    4.82
SO YBADJ    COOL1_14  -12.77  -95.22  -98.43  -98.65  -95.87  -90.18
SO YBADJ    COOL1_14  -81.74  -70.83  -57.76  -42.94  -26.81   -9.87
SO YBADJ    COOL1_14    7.37   24.39   40.67   55.71   69.06   80.31
SO YBADJ    COOL1_14   89.12   95.22   98.43   98.65   95.87   90.18
SO YBADJ    COOL1_14   81.74   70.83   57.76   42.94   26.81    9.87


SO BUILDHGT COOL1_15   14.94   14.94   31.39   31.39   14.94   31.39
SO BUILDHGT COOL1_15   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_15   62.37   97.33   41.93   39.26  180.68   30.44
SO BUILDWID COOL1_15   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_15  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_15   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_15  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_15  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_15  215.91  211.84   29.34   34.48  162.46   41.50
SO BUILDLEN COOL1_15   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_15  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_15  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_15  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_15  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_15 -189.86 -185.76 -167.12 -170.39 -140.95 -112.93
SO XBADJ    COOL1_15 -115.72 -115.00  -26.08  -26.48  -29.81  -32.23
SO XBADJ    COOL1_15  -33.67  -34.09  -33.47  -31.84  -29.23  -25.74
SO XBADJ    COOL1_15  -26.05  -26.08  -25.31  -23.77  -21.51  -18.60
SO XBADJ    COOL1_15  -15.12  -11.18   -6.91  -35.89  -67.52  -97.10
SO XBADJ    COOL1_15 -123.73 -146.59 -165.01 -178.41 -186.39 -188.70
SO YBADJ    COOL1_15   -4.71  -18.86   17.37   -9.37  -56.25   19.36
SO YBADJ    COOL1_15    3.06  -13.33  -81.48  -81.91  -79.84  -75.36
SO YBADJ    COOL1_15  -68.58  -59.72  -49.04  -36.88  -23.59   -9.59
SO YBADJ    COOL1_15    4.71   18.86   32.43   45.03   56.25   65.77
SO YBADJ    COOL1_15   73.29   78.58   81.48   81.91   79.84   75.36
SO YBADJ    COOL1_15   68.58   59.72   49.04   36.88   23.59    9.59


SO BUILDHGT COOL1_16   14.94   14.94   31.39   31.39   31.39   14.94
SO BUILDHGT COOL1_16   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_16   62.37   97.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL1_16   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_16  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_16   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_16  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_16  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_16  215.91  211.84   29.34   34.48   38.57  135.28
SO BUILDLEN COOL1_16   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_16  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_16  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_16  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_16  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_16 -173.70 -170.30 -152.82 -157.68 -157.76 -108.27
SO XBADJ    COOL1_16 -109.87 -111.89  -25.81  -29.06  -35.15  -40.17
SO XBADJ    COOL1_16  -43.98  -46.45  -47.50  -47.12  -45.30  -42.10
SO XBADJ    COOL1_16  -42.21  -41.54  -39.61  -36.48  -32.23  -27.01
SO XBADJ    COOL1_16  -20.97  -14.29   -7.18  -33.32  -62.18  -89.15
SO XBADJ    COOL1_16 -113.42 -134.23 -150.97 -163.13 -170.32 -172.34
SO YBADJ    COOL1_16   -2.13  -13.51   25.32    0.94  -23.46  -51.73
SO YBADJ    COOL1_16   18.34    2.73  -65.12  -65.75  -64.38  -61.05
SO YBADJ    COOL1_16  -55.87  -49.00  -40.63  -31.03  -20.49   -9.32
SO YBADJ    COOL1_16    2.13   13.51   24.49   34.72   43.89   51.73
SO YBADJ    COOL1_16   58.00   62.51   65.12   65.75   64.38   61.05
SO YBADJ    COOL1_16   55.87   49.00   40.63   31.03   20.49    9.32


SO BUILDHGT COOL1_17   14.94   14.94   31.39   31.39   31.39   14.94
SO BUILDHGT COOL1_17   14.94   14.94   31.39   31.39   14.94   14.94
SO BUILDHGT COOL1_17   14.94   14.94   14.94   14.94   14.94   14.94
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SO BUILDHGT COOL1_17    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_17    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_17    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_17    62.37   97.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL1_17   210.24  215.62   10.80   16.56  211.84  201.33
SO BUILDWID COOL1_17   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_17    62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_17   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_17   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_17   215.91  211.84   29.34   34.48   38.57  135.28
SO BUILDLEN COOL1_17   104.00   69.55   42.54   43.42   97.33  129.33
SO BUILDLEN COOL1_17   157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_17   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_17   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_17   157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_17 -157.17 -154.45 -138.13 -144.61 -146.70  -99.56
SO XBADJ    COOL1_17   -76.92  -51.95 -110.10 -109.84  -40.48  -48.18
SO XBADJ    COOL1_17   -54.41  -58.99  -61.78  -62.69  -61.69  -58.82
SO XBADJ    COOL1_17   -58.75  -57.39  -54.30  -49.55  -43.30  -35.73
SO XBADJ    COOL1_17   -27.07  -17.60   -7.59  -30.82  -56.85  -81.15
SO XBADJ    COOL1_17 -102.98 -121.69 -136.70 -147.55 -153.93 -155.62
SO YBADJ    COOL1_17     0.37   -8.18   33.32   11.38  -10.92  -37.46
SO YBADJ    COOL1_17   -42.43  -46.12    3.76  -11.72  -48.53  -46.37
SO YBADJ    COOL1_17   -42.80  -37.94  -31.92  -24.93  -17.18   -8.91
SO YBADJ    COOL1_17    -0.37    8.18   16.48   24.29   31.35   37.46
SO YBADJ    COOL1_17    42.43   46.12   48.40   49.21   48.53   46.37
SO YBADJ    COOL1_17    42.80   37.94   31.92   24.93   17.18    8.91

SO BUILDHGT COOL1_18    14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_18    14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_18    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_18    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_18    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_18    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_18    62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_18   210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL1_18   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_18    62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_18   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_18   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_18   215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL1_18   104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL1_18   157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_18   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_18   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_18   157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_18 -140.83 -138.92 -163.73 -132.08 -136.26 -136.30
SO XBADJ    COOL1_18   -71.55  -49.40  -25.74 -113.07 -112.44 -108.40
SO XBADJ    COOL1_18   -65.38  -71.96  -76.37  -78.45  -78.15  -75.47
SO XBADJ    COOL1_18   -75.08  -72.92  -68.54  -62.08  -53.74  -43.76
SO XBADJ    COOL1_18   -32.45  -20.15   -7.25  -27.59  -50.83  -72.53
SO XBADJ    COOL1_18   -92.02 -108.72 -122.11 -131.79 -137.47 -138.97
SO YBADJ    COOL1_18     3.60   -2.17   18.93   22.34    2.06  -18.29
SO YBADJ    COOL1_18   -26.67  -29.66  -31.75    4.62  -11.32  -26.91
SO YBADJ    COOL1_18   -30.27  -27.49  -23.88  -19.55  -14.62   -9.25
SO YBADJ    COOL1_18    -3.60    2.17    7.86   13.32   18.38   22.87
SO YBADJ    COOL1_18    26.67   29.66   31.75   32.87   33.00   32.12
SO YBADJ    COOL1_18    30.27   27.49   23.88   19.55   14.62    9.25

SO BUILDHGT COOL1_19    14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_19    31.39   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL1_19    31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_19    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_19    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_19    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_19    62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_19    24.57  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL1_19    34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_19    62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_19   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_19   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_19   215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL1_19    43.16   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL1_19    39.26  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_19   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_19   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_19   157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_19 -123.97 -122.67 -148.60 -118.51 -124.67 -127.04
SO XBADJ    COOL1_19 -125.55  -45.57  -24.84  -36.84 -117.40 -116.10
SO XBADJ    COOL1_19 -111.27  -84.38  -90.61  -94.08  -94.70  -92.43
SO XBADJ    COOL1_19   -91.94  -89.17  -83.68  -75.65  -65.33  -53.02
SO XBADJ    COOL1_19   -39.09  -23.98   -8.15  -25.53  -45.88  -64.83
SO XBADJ    COOL1_19   -81.81  -96.30 -107.87 -116.16 -120.92 -122.01
SO YBADJ    COOL1_19     5.65    2.79   26.63   32.55   14.47   -4.05
SO YBADJ    COOL1_19   -22.44  -13.11  -14.79  -16.01    4.93  -11.77
SO YBADJ    COOL1_19   -28.11  -15.90  -14.63  -12.90  -10.79   -8.35
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SO YBADJ     COOL1_19    -5.65    -2.79     0.16     3.11     5.96     8.63
SO YBADJ     COOL1_19    11.04    13.11    14.79    16.01    16.75    16.98
SO YBADJ     COOL1_19    16.70    15.90    14.63    12.90    10.79     8.35

SO BUILDHGT COOL1_20    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL1_20    31.39    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL1_20    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_20    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_20    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_20    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_20    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL1_20    24.57   215.62   214.45   215.91    23.30    29.34
SO BUILDWID COOL1_20    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL1_20    62.37    97.33   129.33   157.39   180.68   198.48
SO BUILDWID COOL1_20   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_20   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_20   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL1_20    43.16    69.55    32.99    62.37    43.33    41.93
SO BUILDLEN COOL1_20    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL1_20   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL1_20   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_20   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ     COOL1_20 -108.64 -108.10 -135.24 -142.01 -114.89 -119.53
SO XBADJ     COOL1_20 -120.54   -43.20   -25.19   -39.90 -123.07 -124.21
SO XBADJ     COOL1_20 -121.58 -115.26 -104.32 -108.89 -110.15 -108.06
SO XBADJ     COOL1_20 -107.27 -103.74   -97.04   -87.40   -75.11   -60.53
SO XBADJ     COOL1_20   -44.11   -26.35    -7.80   -22.47   -40.20   -56.71
SO XBADJ     COOL1_20   -71.49   -84.10   -94.16 -101.36 -105.47 -106.38
SO YBADJ     COOL1_20     8.71     8.46    34.75    13.29    26.67     9.66
SO YBADJ     COOL1_20    -7.64     2.34     0.84    -0.68    19.49     1.59
SO YBADJ     COOL1_20   -16.36   -33.82    -7.11    -7.89    -8.42    -8.70
SO YBADJ     COOL1_20    -8.71    -8.46    -7.95    -7.20    -6.24    -5.08
SO YBADJ     COOL1_20    -3.77    -2.34    -0.84     0.68     2.18     3.62
SO YBADJ     COOL1_20     4.95     6.12     7.11     7.89     8.42     8.70

SO BUILDHGT COOL1_21    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL1_21    31.39    31.39    14.94    14.94    14.94    31.39
SO BUILDHGT COOL1_21    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_21    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL1_21    24.57    17.96   214.45   215.91   211.84    29.34
SO BUILDWID COOL1_21    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL1_21    62.37    97.33   129.33   157.39   180.68   198.48
SO BUILDWID COOL1_21   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_21   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_21   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL1_21    43.16    43.51    32.99    62.37    97.33    41.93
SO BUILDLEN COOL1_21    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL1_21   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL1_21   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_21   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ     COOL1_21   -92.16   -92.21   -89.45 -128.68 -133.06 -110.38
SO XBADJ     COOL1_21 -113.93 -114.01   -24.18   -41.78   -61.84 -131.61
SO XBADJ     COOL1_21 -131.45 -127.29 -118.14 -124.09 -126.27 -124.61
SO XBADJ     COOL1_21 -123.75 -119.63 -111.88 -100.73   -86.52   -69.68
SO XBADJ     COOL1_21   -50.72   -30.22    -8.81   -20.59   -35.49   -49.31
SO XBADJ     COOL1_21   -61.63   -72.08   -80.33   -86.15   -89.35   -89.83
SO YBADJ     COOL1_21    10.59    13.17    15.35    23.15     3.45    23.49
SO YBADJ     COOL1_21     7.57    -8.58    17.39    15.79    13.71    16.43
SO YBADJ     COOL1_21    -3.04   -22.41     2.04    -1.28    -4.55    -7.69
SO YBADJ     COOL1_21   -10.59   -13.17   -15.35   -17.07   -18.27   -18.91
SO YBADJ     COOL1_21   -18.97   -18.46   -17.39   -15.79   -13.71   -11.22
SO YBADJ     COOL1_21    -8.38    -5.29    -2.04     1.28     4.55     7.69

SO BUILDHGT COOL1_22    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL1_22    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL1_22    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL1_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_22    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL1_22    24.57    17.96    10.80   215.91   211.84   201.33
SO BUILDWID COOL1_22    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL1_22    62.37    97.33   129.33   157.39   180.68   198.48
SO BUILDWID COOL1_22   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_22   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_22   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL1_22    43.16    43.51    42.54    62.37    97.33   129.33
SO BUILDLEN COOL1_22    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL1_22   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL1_22   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_22   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ     COOL1_22   -76.44   -77.15   -75.52 -116.31 -122.61 -125.18
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SO XBADJ    COOL1_22 -108.22 -110.97 -110.35  -44.27  -67.02  -87.74
SO XBADJ    COOL1_22 -141.47 -139.30 -132.91 -138.96 -141.90 -140.54
SO XBADJ    COOL1_22 -139.48 -134.69 -125.81 -113.11  -96.97  -77.88
SO XBADJ    COOL1_22  -56.43  -33.26   -9.09  -18.11  -30.31  -41.59
SO XBADJ    COOL1_22  -51.61  -60.06  -66.69  -71.29  -73.72  -73.91
SO YBADJ    COOL1_22   13.08   18.36   23.07   33.17   15.46   -2.71
SO YBADJ    COOL1_22   22.43    7.05   -8.55   31.52   28.77   25.14
SO YBADJ    COOL1_22    9.34  -11.96  -32.90    4.43   -1.51   -7.41
SO YBADJ    COOL1_22  -13.08  -18.36  -23.07  -27.09  -30.28  -32.55
SO YBADJ    COOL1_22  -33.84  -34.09  -33.31  -31.52  -28.77  -25.14
SO YBADJ    COOL1_22  -20.76  -15.74  -10.24   -4.43    1.51    7.41

SO BUILDHGT COOL1_23   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL1_23   31.39   14.94   31.39   31.39   31.39   14.94
SO BUILDHGT COOL1_23   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL1_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_23   62.37   97.33  129.33  157.39   35.39   30.44
SO BUILDWID COOL1_23   24.57  215.62   10.80   16.56   23.30  201.33
SO BUILDWID COOL1_23   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL1_23   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_23  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_23  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_23  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL1_23   43.16   69.55   42.54   43.42   43.33  129.33
SO BUILDLEN COOL1_23   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL1_23  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_23  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_23  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_23  -58.98  -60.46  -60.10  -57.92 -111.09 -116.18
SO XBADJ    COOL1_23 -117.73  -33.04 -110.18 -110.85 -108.34  -96.43
SO XBADJ    COOL1_23 -152.71 -152.75 -148.14 -155.53 -159.30 -158.24
SO XBADJ    COOL1_23 -156.94 -151.38 -141.23 -126.78 -108.48  -86.89
SO XBADJ    COOL1_23  -62.65  -36.51   -9.27  -15.21  -24.42  -32.90
SO XBADJ    COOL1_23  -40.37  -46.62  -51.45  -54.71  -56.32  -56.21
SO YBADJ    COOL1_23   15.98   24.24   31.77   38.33   28.91   12.52
SO YBADJ    COOL1_23   -4.24   51.49    9.15   -6.43  -21.81   40.56
SO YBADJ    COOL1_23   23.01   -0.45  -23.89   10.65    1.74   -7.23
SO YBADJ    COOL1_23  -15.98  -24.24  -31.77  -38.33  -43.72  -47.79
SO YBADJ    COOL1_23  -50.41  -51.49  -51.01  -48.98  -45.46  -40.56
SO YBADJ    COOL1_23  -34.43  -27.25  -19.24  -10.65   -1.74    7.23


SO BUILDHGT COOL1_24   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL1_24   31.39   31.39   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_24   14.94   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL1_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_24   62.37   97.33  129.33  157.39  180.68   30.44
SO BUILDWID COOL1_24   24.57   17.96  214.45   16.56   23.30   29.34
SO BUILDWID COOL1_24  184.70   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL1_24   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_24  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_24  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_24  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL1_24   43.16   43.51   32.99   43.42   43.33   41.93
SO BUILDLEN COOL1_24  157.39   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL1_24  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_24  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_24  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_24  -44.36  -46.41  -47.06  -46.27  -44.08 -108.32
SO XBADJ    COOL1_24 -112.17 -112.60  -23.16 -112.86 -112.86 -109.42
SO XBADJ    COOL1_24 -126.07 -163.68 -160.63 -169.19 -173.72 -172.98
SO XBADJ    COOL1_24 -171.55 -165.42 -154.27 -138.43 -118.39  -94.74
SO XBADJ    COOL1_24  -68.22  -39.62   -9.83  -13.20  -19.91  -26.01
SO XBADJ    COOL1_24  -31.32  -35.69  -38.96  -41.05  -41.90  -41.47
SO YBADJ    COOL1_24   17.99   28.76   38.65   47.37   54.66   25.01
SO YBADJ    COOL1_24    9.42   -6.45   65.75    8.18   -7.77  -23.49
SO YBADJ    COOL1_24   46.08    9.46  -16.04   16.22    4.85   -6.67
SO YBADJ    COOL1_24  -17.99  -28.76  -38.65  -47.37  -54.66  -60.28
SO YBADJ    COOL1_24  -64.07  -65.91  -65.75  -63.59  -59.51  -53.61
SO YBADJ    COOL1_24  -46.08  -37.16  -27.10  -16.22   -4.85    6.67


SO BUILDHGT COOL1_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_25   14.94   31.39   31.39   14.94   31.39   31.39
SO BUILDHGT COOL1_25   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL1_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_25   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_25  210.24   17.96   10.80  215.91   23.30   29.34
SO BUILDWID COOL1_25   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL1_25   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_25  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_25  184.70  162.46  135.28  104.00   69.55   32.99
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SO BUILDLEN COOL1_25  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_25  104.00   43.51   42.54   62.37   43.33   41.93
SO BUILDLEN COOL1_25   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL1_25  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_25  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_25  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_25  -27.79  -30.54  -32.36  -33.20  -33.03  -31.85
SO XBADJ    COOL1_25  -29.71 -109.34 -109.25  -51.73 -118.25 -117.49
SO XBADJ    COOL1_25 -113.16 -176.28 -174.96 -168.33 -190.16 -189.74
SO XBADJ    COOL1_25 -188.12 -181.30 -168.97 -151.50 -129.43 -103.43
SO XBADJ    COOL1_25  -74.29  -42.89  -10.19  -10.65  -14.51  -17.94
SO XBADJ    COOL1_25  -20.83  -23.08  -24.63  -25.43  -25.46  -24.71
SO YBADJ    COOL1_25   20.54   34.15   46.72   57.87   67.26   74.61
SO YBADJ    COOL1_25   79.69    9.99   -5.37   80.16    8.10   -8.79
SO YBADJ    COOL1_25  -25.42   20.51   -7.34  -34.97    8.11   -6.31
SO YBADJ    COOL1_25  -20.54  -34.15  -46.72  -57.87  -67.26  -74.61
SO YBADJ    COOL1_25  -79.69  -82.35  -82.51  -80.16  -75.38  -68.30
SO YBADJ    COOL1_25  -59.15  -48.20  -35.79  -22.29   -8.11    6.31


SO BUILDHGT COOL1_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_26   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_26   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_26   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_26  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL1_26   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_26   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_26  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_26  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_26  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_26  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL1_26   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_26  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_26  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_26  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_26  -10.82  -14.25  -17.24  -19.72  -21.59  -22.80
SO XBADJ    COOL1_26  -23.33  -23.14  -22.25 -109.86 -107.86 -125.58
SO XBADJ    COOL1_26 -123.75 -118.17 -188.42 -200.73 -206.95 -206.88
SO XBADJ    COOL1_26 -205.09 -197.59 -184.09 -164.99 -140.87 -112.48
SO XBADJ    COOL1_26  -80.67  -46.41  -10.74   -8.21   -9.17   -9.85
SO XBADJ    COOL1_26  -10.23  -10.30  -10.06   -9.51   -8.67   -7.57
SO YBADJ    COOL1_26   22.98   39.49   54.81   68.47   80.04   89.18
SO YBADJ    COOL1_26   95.61   99.14   99.65   -3.59  -18.84    6.33
SO YBADJ    COOL1_26  -11.93  -29.83   44.84   28.67   11.63   -5.76
SO YBADJ    COOL1_26  -22.98  -39.49  -54.81  -68.47  -80.04  -89.18
SO YBADJ    COOL1_26  -95.61  -99.14  -99.65  -97.14  -91.67  -83.42
SO YBADJ    COOL1_26  -72.64  -59.64  -44.84  -28.67  -11.63    5.76

SO BUILDHGT COOL2_01   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_01   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_01   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_01   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_01   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_01   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_01   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_01   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_01  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_01   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_01  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_01  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_01  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_01   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_01  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_01  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_01  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_01  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_01 -203.22 -170.94  -92.77 -100.35 -104.88 -106.22
SO XBADJ    COOL2_01 -104.33  -44.68   -9.27   -7.05   -8.35   -9.40
SO XBADJ    COOL2_01  -10.16  -10.62  -10.75  -10.55  -10.04   -9.21
SO XBADJ    COOL2_01  -12.69  -16.29  -19.40  -21.91  -23.76  -24.89
SO XBADJ    COOL2_01  -25.27  -24.87  -23.72  -55.32  -88.97 -119.92
SO XBADJ    COOL2_01 -147.23 -170.06 -187.73 -199.69 -205.59 -205.23
SO YBADJ    COOL2_01  -24.13   18.78   35.66   21.56    6.80   -8.17
SO YBADJ    COOL2_01  -22.89  -97.77  -98.01  -95.27  -89.63  -81.27
SO YBADJ    COOL2_01  -70.44  -57.47  -42.75  -26.73   -9.91    7.22
SO YBADJ    COOL2_01   24.13   40.31   55.26   68.53   79.72   88.49
SO YBADJ    COOL2_01   94.57   97.77   98.01   95.27   89.63   81.27
SO YBADJ    COOL2_01   70.44   57.47   42.75   26.73    9.91   -7.22


SO BUILDHGT COOL2_02   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_02   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_02   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_02   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL2_02   14.94   14.94   14.94   14.94   14.94   14.94
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SO BUILDHGT COOL2_02    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_02    62.37    43.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL2_02    24.57   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_02   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDWID COOL2_02    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL2_02   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_02   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_02   215.91    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN COOL2_02    43.16    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_02   157.40   180.68   198.48   210.24   215.62   214.45
SO BUILDLEN COOL2_02   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL2_02   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_02   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_02  -185.80  -154.35  -159.55  -159.89   -93.63   -97.52
SO XBADJ    COOL2_02   -98.45   -41.79    -9.46   -10.32   -14.59   -18.43
SO XBADJ    COOL2_02   -21.70   -24.31   -26.19   -27.27   -27.52   -26.93
SO XBADJ    COOL2_02   -30.11   -32.88   -34.65    52.42    55.06    56.03
SO XBADJ    COOL2_02   -31.15   -27.76   -23.53   -52.06   -82.73  -110.90
SO XBADJ    COOL2_02  -135.69  -156.37  -172.29  -182.97  -188.10  -187.51
SO YBADJ    COOL2_02   -20.87    25.02    -0.14   -25.29    20.49     7.27
SO YBADJ    COOL2_02    -6.17   -80.29   -80.29   -77.85   -73.04   -66.02
SO YBADJ    COOL2_02   -56.98   -46.22   -34.05   -20.85    -7.02     7.03
SO YBADJ    COOL2_02    20.87    34.07    46.24   -33.09   -20.49    -7.27
SO YBADJ    COOL2_02    77.85    80.29    80.29    77.85    73.04    66.02
SO YBADJ    COOL2_02    56.98    46.22    34.05    20.85     7.02    -7.03

SO BUILDHGT COOL2_03    14.94    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT COOL2_03    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_03    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_03    14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL2_03    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_03    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_03    62.37    43.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL2_03    24.57    17.96   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_03   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDWID COOL2_03    62.37    97.33   129.33   157.40    35.39    30.44
SO BUILDWID COOL2_03   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_03   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_03   215.91    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN COOL2_03    43.16    43.51    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_03   157.40   180.68   198.48   210.24   215.62   214.45
SO BUILDLEN COOL2_03   215.91   211.84   201.33   184.70    38.57    41.50
SO BUILDLEN COOL2_03   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_03   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_03  -170.52  -139.80  -146.17  -148.10   -83.78   -89.90
SO XBADJ    COOL2_03   -93.30   -93.86    -9.64   -13.19   -20.08   -26.36
SO XBADJ    COOL2_03   -31.83   -36.34   -39.75   -41.94   -42.87   -42.48
SO XBADJ    COOL2_03   -45.39   -47.43   -48.03   -47.16    45.20    48.41
SO XBADJ    COOL2_03   -36.30   -30.28   -23.35   -49.18   -77.25  -102.97
SO XBADJ    COOL2_03  -125.56  -144.34  -158.73  -168.30  -172.76  -171.96
SO YBADJ    COOL2_03   -17.99    30.51     7.79   -15.16    32.52    20.83
SO YBADJ    COOL2_03     8.50    -4.08   -64.74   -62.57   -58.49   -52.64
SO YBADJ    COOL2_03   -45.19   -36.36   -26.43   -15.70    -4.49     6.85
SO YBADJ    COOL2_03    17.99    28.58    38.31    46.86   -32.52   -20.83
SO YBADJ    COOL2_03    63.18    64.95    64.74    62.57    58.49    52.64
SO YBADJ    COOL2_03    45.19    36.36    26.43    15.70     4.49    -6.85

SO BUILDHGT COOL2_04    14.94    31.39    31.39    31.39    31.39    14.94
SO BUILDHGT COOL2_04    31.39    31.39    31.39    31.39    14.94    14.94
SO BUILDHGT COOL2_04    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_04    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_04    31.39    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_04    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_04    62.37    43.33    41.93    39.26    35.39   198.48
SO BUILDWID COOL2_04    24.57    17.96    10.80    16.56   211.84   201.33
SO BUILDWID COOL2_04   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDWID COOL2_04    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL2_04    24.57   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_04   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_04   215.91    23.30    29.34    34.48    38.57   135.28
SO BUILDLEN COOL2_04    43.16    43.51    42.54    43.42    97.33   129.33
SO BUILDLEN COOL2_04   157.40   180.68   198.48   210.24   215.62   214.45
SO BUILDLEN COOL2_04   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_04    43.16    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_04   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_04  -155.26  -125.19  -132.66  -136.09  -135.39   -86.12
SO XBADJ    COOL2_04   -87.76   -90.92   -91.30   -90.49   -25.11   -33.85
SO XBADJ    COOL2_04   -41.56   -48.00   -52.99   -56.37   -58.03   -57.93
SO XBADJ    COOL2_04   -60.65   -62.04   -61.54   -59.17   -55.00   -49.17
SO XBADJ    COOL2_04    44.61   -33.23   -23.62   -46.76   -72.22   -95.48
SO XBADJ    COOL2_04  -115.84  -132.68  -145.49  -153.88  -157.59  -156.51
SO YBADJ    COOL2_04   -15.57    35.54    15.28    -5.44   -25.99   -46.25
SO YBADJ    COOL2_04    22.93    11.09    -1.09   -13.23   -43.88   -39.12
SO YBADJ    COOL2_04   -33.18   -26.23   -18.48   -10.16    -1.54     7.12
SO YBADJ    COOL2_04    15.57    23.55    30.81    37.14    42.34    46.25
SO YBADJ    COOL2_04   -22.93    49.78    49.29    47.30    43.88    39.12
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SO YBADJ    COOL2_04   33.18   26.23   18.48   10.16    1.54   -7.12

SO BUILDHGT COOL2_05   14.94   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL2_05   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL2_05   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_05   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_05   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_05   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_05   62.37   43.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL2_05  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL2_05  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_05   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_05  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL2_05  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_05  215.91   23.30   29.34   34.48   38.57  135.28
SO BUILDLEN COOL2_05  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL2_05  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_05  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_05  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL2_05  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_05 -139.54 -153.65 -118.89 -123.95 -125.25  -78.28
SO XBADJ    COOL2_05  -56.87  -33.73   -9.56  -93.46  -92.76  -89.24
SO XBADJ    COOL2_05  -51.99  -60.38  -66.94  -71.47  -73.82  -73.93
SO XBADJ    COOL2_05  -76.38  -77.01  -75.30  -71.31  -65.14  -57.00
SO XBADJ    COOL2_05  -47.13  -35.82  -23.43  -43.80  -66.57   47.31
SO XBADJ    COOL2_05 -105.41 -120.30 -131.54 -138.78 -141.80 -140.51
SO YBADJ    COOL2_05  -12.61   25.85   23.45    4.99  -13.61  -32.30
SO YBADJ    COOL2_05  -33.65  -33.99  -33.29    2.49  -10.01  -22.20
SO YBADJ    COOL2_05  -21.04  -16.09  -10.64   -4.87    1.05    6.93
SO YBADJ    COOL2_05   12.61   17.90   22.65   26.71   29.96   32.30
SO YBADJ    COOL2_05   33.65   33.99   33.29   31.58   28.91   22.20
SO YBADJ    COOL2_05   21.04   16.09   10.64    4.87   -1.05   -6.93

SO BUILDHGT COOL2_06   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_06   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_06   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_06   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_06   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_06   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_06   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_06  210.24  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL2_06   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_06   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_06  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL2_06   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_06  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_06  104.00   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL2_06   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_06  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_06  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL2_06   39.26   35.39  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_06 -122.15 -137.01 -103.51 -110.29 -113.72 -113.69
SO XBADJ    COOL2_06  -50.59  -30.40   -9.28  -21.36  -98.51  -97.80
SO XBADJ    COOL2_06  -94.11  -87.56  -82.05  -87.91  -91.11  -91.54
SO XBADJ    COOL2_06  -93.76  -93.64  -90.68  -84.97  -76.67  -66.04
SO XBADJ    COOL2_06  -53.41  -39.15  -23.71  -41.02  -60.81   55.86
SO XBADJ    COOL2_06   54.85   52.17 -116.43 -122.33 -124.51 -122.91
SO YBADJ    COOL2_06   -9.83   31.61   32.01   16.09   -0.31  -16.70
SO YBADJ    COOL2_06  -17.21  -16.70  -15.69  -14.20    6.63   -6.82
SO YBADJ    COOL2_06  -20.06  -32.68   -1.60    1.41    4.38    7.21
SO YBADJ    COOL2_06    9.83   12.14   14.09   15.61   16.66   17.19
SO YBADJ    COOL2_06   17.21   16.70   15.69   14.20   12.28    6.82
SO YBADJ    COOL2_06   20.06   32.68    1.60   -1.41   -4.38   -7.21

SO BUILDHGT COOL2_07   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_07   31.39   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_07   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL2_07   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_07   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_07   14.94   14.94   31.39   14.94   14.94   14.94
SO BUILDWID COOL2_07   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_07   24.57  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL2_07   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL2_07   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_07  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_07  184.70  162.46   41.50  104.00   69.55   32.99
SO BUILDLEN COOL2_07  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_07   43.16   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL2_07   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL2_07  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_07  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_07  157.40  180.68   30.44  210.24  215.62  214.45
SO XBADJ    COOL2_07 -106.16 -121.70 -129.45  -97.71 -103.10 -105.35
SO XBADJ    COOL2_07 -104.41  -27.31   -9.00  -23.89 -103.79 -105.65
SO XBADJ    COOL2_07 -104.30  -99.78  -92.23 -103.03 -107.00 -107.73
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SO XBADJ     COOL2_07 -109.75 -108.95 -104.84  -97.55  -87.29  -74.38
SO XBADJ     COOL2_07  -59.21  -42.24  -23.99  -38.48  -55.53  -70.90
SO XBADJ     COOL2_07  -84.12  -94.77   61.79 -107.21 -108.62 -106.72
SO YBADJ     COOL2_07   -7.29   36.88   17.21   26.28   11.91   -2.82
SO YBADJ     COOL2_07  -17.47   -0.81    0.50    1.79   21.94    7.34
SO YBADJ     COOL2_07   -7.47  -22.06  -35.98    7.21    7.47    7.49
SO YBADJ     COOL2_07    7.29    6.87    6.24    5.42    4.43    3.31
SO YBADJ     COOL2_07    2.09    0.81   -0.50   -1.79   -3.03   -4.18
SO YBADJ     COOL2_07   -5.20   -6.06  -35.98   -7.21   -7.47   -7.49

SO BUILDHGT COOL2_08    14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_08    31.39   31.39   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_08    31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL2_08    14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_08    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_08    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_08    62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_08    24.57   17.96  214.45  215.91  211.84   29.34
SO BUILDWID COOL2_08    34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL2_08    62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL2_08   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_08   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_08   215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_08    43.16   43.51   32.99   62.37   97.33   41.93
SO BUILDLEN COOL2_08    39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL2_08   215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL2_08   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_08   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ     COOL2_08  -87.94  -85.45 -113.33 -118.95  -91.02  -95.89
SO XBADJ     COOL2_08  -97.84  -96.81   -8.72  -26.82  -47.84 -114.63
SO XBADJ     COOL2_08 -115.94 -113.73 -108.07 -120.27 -125.12 -126.17
SO XBADJ     COOL2_08 -127.97 -126.39 -120.96 -111.86   52.45   54.39
SO XBADJ     COOL2_08  -65.78  -45.72  -24.27  -35.55  -49.49  -61.92
SO XBADJ     COOL2_08  -72.47  -80.82  -86.71  -89.97  -90.50  -88.27
SO YBADJ     COOL2_08   -4.37   -0.82   26.20    8.67   25.87   13.02
SO YBADJ     COOL2_08   -0.23  -13.47   18.95   20.01   20.47   23.46
SO YBADJ     COOL2_08    6.84   -9.99  -26.51   13.79   10.95    7.77
SO YBADJ     COOL2_08    4.37    0.82   -2.74   -6.23  -25.87  -13.02
SO YBADJ     COOL2_08  -15.15  -17.31  -18.95  -20.01  -20.47  -20.30
SO YBADJ     COOL2_08  -19.51  -18.14  -16.21  -13.79  -10.95   -7.77

SO BUILDHGT COOL2_09    14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_09    31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL2_09    31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL2_09    14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_09    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_09    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_09    62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_09    24.57   17.96   10.80  215.91  211.84  201.33
SO BUILDWID COOL2_09    34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL2_09    62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL2_09   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_09   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_09   215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_09    43.16   43.51   42.54   62.37   97.33  129.33
SO BUILDLEN COOL2_09    39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL2_09   215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL2_09   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_09   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ     COOL2_09  -72.02  -70.30  -99.40 -106.67 -110.70  -87.96
SO XBADJ     COOL2_09  -92.48  -94.20  -93.05  -29.83  -53.57  -75.68
SO XBADJ     COOL2_09 -126.51 -126.27 -122.20 -114.41 -141.11 -142.38
SO XBADJ     COOL2_09 -143.89 -141.54 -134.89 -124.15 -109.63   46.46
SO XBADJ     COOL2_09  -71.14  -48.34  -24.07  -32.54  -43.76  -53.65
SO XBADJ     COOL2_09  -61.91  -68.28  -72.58  -74.68  -74.51  -72.07
SO YBADJ     COOL2_09   -1.36    4.91   34.47   19.23    3.41   27.15
SO YBADJ     COOL2_09   15.06    2.52  -10.10   35.93   35.62   34.23
SO YBADJ     COOL2_09   19.12    0.27  -18.59  -36.88   13.56    7.57
SO YBADJ     COOL2_09    1.36   -4.91  -11.02  -16.79  -22.06  -27.15
SO YBADJ     COOL2_09  -30.44  -33.30  -35.15  -35.93  -35.62  -34.23
SO YBADJ     COOL2_09  -31.80  -28.40  -24.13  -19.14  -13.56   -7.57

SO BUILDHGT COOL2_10    14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL2_10    31.39   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL2_10    31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL2_10    14.94   14.94   14.94   31.39   31.39   14.94
SO BUILDHGT COOL2_10    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_10    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_10    62.37   97.33  129.33   39.26   35.39   30.44
SO BUILDWID COOL2_10    24.57   17.96   10.80   16.56   23.30  201.33
SO BUILDWID COOL2_10    34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL2_10    62.37   97.33  129.33   39.26   35.39  198.48
SO BUILDWID COOL2_10   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_10   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_10   215.91  211.84  201.33   34.48   38.57   41.50
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SO BUILDLEN COOL2_10    43.16    43.51    42.54    43.42    43.33   129.33
SO BUILDLEN COOL2_10    39.26    35.39    30.44    24.57   215.62   214.45
SO BUILDLEN COOL2_10   215.91   211.84   201.33    34.48    38.57   135.28
SO BUILDLEN COOL2_10   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_10   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_10   -57.05   -55.88   -53.01   -94.65  -100.44  -103.18
SO XBADJ    COOL2_10  -102.79   -90.84   -92.30   -92.52   -90.11   -82.57
SO XBADJ    COOL2_10  -135.62  -137.33  -134.87  -128.32  -155.82  -157.45
SO XBADJ    COOL2_10  -158.86  -155.96  -148.32    60.17    61.87   -99.96
SO XBADJ    COOL2_10   -77.00   -51.69   -24.82   -30.66   -39.31   -46.76
SO XBADJ    COOL2_10   -52.79   -57.22   -59.91   -60.78   -59.80   -57.00
SO YBADJ    COOL2_10     0.52     9.35    17.90    28.34    14.47     0.16
SO YBADJ    COOL2_10   -14.16    17.23     4.97    -7.44   -19.62    47.65
SO YBADJ    COOL2_10    31.15    10.53   -10.40   -31.02    16.92     8.32
SO YBADJ    COOL2_10    -0.52    -9.35   -17.90   -28.34   -14.47   -39.33
SO YBADJ    COOL2_10   -44.35   -48.01   -50.22   -50.90   -50.04   -47.65
SO YBADJ    COOL2_10   -43.82   -38.66   -32.32   -25.00   -16.92    -8.32


SO BUILDHGT COOL2_11    14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL2_11    31.39    31.39    14.94    31.39    31.39    31.39
SO BUILDHGT COOL2_11    31.39    31.39    31.39    31.39    14.94    14.94
SO BUILDHGT COOL2_11    14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL2_11    14.94    14.94    14.94    14.94    14.94    31.39
SO BUILDHGT COOL2_11    31.39    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_11    62.37    97.33   129.33   157.40    35.39    30.44
SO BUILDWID COOL2_11    24.57    17.96   214.45    16.56    23.30    29.34
SO BUILDWID COOL2_11    34.48    38.57    41.50    43.16    69.55    32.99
SO BUILDWID COOL2_11    62.37    97.33   129.33   157.40    35.39    30.44
SO BUILDWID COOL2_11   210.24   215.62   214.45   215.91   211.84    29.34
SO BUILDWID COOL2_11    34.48   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_11   215.91   211.84   201.33   184.70    38.57    41.50
SO BUILDLEN COOL2_11    43.16    43.51    32.99    43.42    43.33    41.93
SO BUILDLEN COOL2_11    39.26    35.39    30.44    24.57   215.62   214.45
SO BUILDLEN COOL2_11   215.91   211.84   201.33   184.70    38.57    41.50
SO BUILDLEN COOL2_11   104.00    69.55    32.99    62.37    97.33    41.93
SO BUILDLEN COOL2_11    39.26   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_11   -40.95   -40.63   -39.08   -36.34   -90.36   -95.52
SO XBADJ    COOL2_11   -97.77   -97.06    -8.83   -96.03   -96.37   -93.77
SO XBADJ    COOL2_11   -88.33  -150.38  -149.47  -144.02  -172.16  -173.91
SO XBADJ    COOL2_11  -174.96  -171.21  -162.25  -148.36    51.78    54.02
SO XBADJ    COOL2_11   -82.01   -53.90   -24.16   -27.15   -33.06    51.84
SO XBADJ    COOL2_11    49.07   -44.18   -45.32   -45.07   -43.46   -40.53
SO YBADJ    COOL2_11     4.03    15.61    26.71    37.00    27.51    14.75
SO YBADJ    COOL2_11     1.55   -11.71    66.69     8.67    -4.37   -17.28
SO YBADJ    COOL2_11   -29.66    20.61    -2.74   -26.01    19.13     7.66
SO YBADJ    COOL2_11    -4.03   -15.61   -26.71   -37.00   -27.51   -14.75
SO YBADJ    COOL2_11   -60.05   -64.35   -66.69   -67.01   -65.29    17.28
SO YBADJ    COOL2_11    29.66   -48.74   -39.98   -30.01   -19.13    -7.66


SO BUILDHGT COOL2_12    14.94    14.94    14.94    14.94    14.94    31.39
SO BUILDHGT COOL2_12    31.39    31.39    31.39    14.94    31.39    31.39
SO BUILDHGT COOL2_12    31.39    31.39    31.39    31.39    14.94    14.94
SO BUILDHGT COOL2_12    14.94    14.94    14.94    14.94    14.94    31.39
SO BUILDHGT COOL2_12    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_12    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_12    62.37    97.33   129.33   157.40   180.68    30.44
SO BUILDWID COOL2_12    24.57    17.96    10.80   215.91    23.30    29.34
SO BUILDWID COOL2_12    34.48    38.57    41.50    43.16    69.55    32.99
SO BUILDWID COOL2_12    62.37    97.33   129.33   157.40   180.68    30.44
SO BUILDWID COOL2_12   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_12    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_12   215.91   211.84   201.33   184.70   162.46    41.50
SO BUILDLEN COOL2_12    43.16    43.51    42.54    62.37    43.33    41.93
SO BUILDLEN COOL2_12    39.26    35.39    30.44    24.57   215.62   214.45
SO BUILDLEN COOL2_12   215.91   211.84   201.33   184.70   162.46    41.50
SO BUILDLEN COOL2_12   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_12    39.26    35.39   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_12   -25.18   -25.64   -25.32   -24.23   -22.41   -87.76
SO XBADJ    COOL2_12   -92.58   -94.58   -93.72   -38.33  -102.16  -102.08
SO XBADJ    COOL2_12   -98.90  -162.89  -163.54  -159.23  -188.04  -189.98
SO XBADJ    COOL2_12  -190.74  -186.20  -176.01  -160.47  -140.05    46.26
SO XBADJ    COOL2_12   -87.21   -56.38   -23.84   -24.05   -27.26   -29.64
SO XBADJ    COOL2_12    59.65    57.33   -31.24   -29.86   -27.58   -24.46
SO YBADJ    COOL2_12     7.14    21.40    35.02    47.57    58.68    28.83
SO YBADJ    COOL2_12    16.76     4.17    -8.54    82.78    10.62    -3.52
SO YBADJ    COOL2_12   -17.55    30.70     5.02   -20.81    21.60     7.34
SO YBADJ    COOL2_12    -7.14   -21.40   -35.02   -47.57   -58.68   -28.83
SO YBADJ    COOL2_12   -75.26   -80.23   -82.76   -82.78   -80.28   -75.34
SO YBADJ    COOL2_12    17.55    31.05   -47.74   -35.21   -21.60    -7.34


SO BUILDHGT COOL2_13    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_13    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL2_13    31.39    31.39    31.39    31.39    14.94    14.94
SO BUILDHGT COOL2_13    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_13    14.94    14.94    14.94    14.94    14.94    31.39
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SO BUILDHGT COOL2_13    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_13    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_13   210.24  215.62   10.80   16.56   23.30   29.34
SO BUILDWID COOL2_13    34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL2_13    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_13   210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL2_13   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_13   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_13   104.00   69.55   42.54   43.42   43.33   41.93
SO BUILDLEN COOL2_13    39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL2_13   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_13   104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL2_13   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_13    -7.54   -8.67   -9.54  -10.12  -10.40  -10.35
SO XBADJ    COOL2_13   -10.00   -9.34  -92.96  -93.91  -92.19  -87.67
SO XBADJ    COOL2_13  -109.75 -105.85 -178.56 -175.68 -205.42 -207.77
SO XBADJ    COOL2_13  -208.38 -203.17 -191.79 -174.58 -152.06 -124.93
SO XBADJ    COOL2_13   -94.00  -60.21  -24.60  -21.71  -21.89   45.74
SO XBADJ    COOL2_13   -20.28  -18.53  -16.22  -13.42  -10.20   -6.68
SO YBADJ    COOL2_13     9.48   26.77   43.25   58.42   71.81   83.02
SO YBADJ    COOL2_13    91.71   97.61    9.24   -3.35  -15.83  -27.84
SO YBADJ    COOL2_13    -3.44  -19.04   14.57  -14.02   25.44    8.10
SO YBADJ    COOL2_13    -9.48  -26.77  -43.25  -58.42  -71.81  -83.02
SO YBADJ    COOL2_13   -91.71  -97.61 -100.54 -100.42  -97.25   27.84
SO YBADJ    COOL2_13   -82.23  -70.83  -57.29  -42.00  -25.44   -8.10


SO BUILDHGT COOL2_14    14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_14    31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_14    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_14    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_14    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_14    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_14    62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_14    24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_14   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_14    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_14   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_14   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_14   215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_14    43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_14   157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_14   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_14   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_14   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_14  -205.73 -175.95 -182.17 -182.85 -116.22 -119.07
SO XBADJ    COOL2_14  -118.29  -59.32  -24.15  -21.72  -22.36  -22.33
SO XBADJ    COOL2_14   -21.62  -20.24  -18.26  -15.72  -12.70   -9.29
SO XBADJ    COOL2_14   -10.19  -11.28  -12.03  -12.41  -12.42  -12.05
SO XBADJ    COOL2_14   -11.31  -10.23   -8.84  -40.65  -74.96 -107.00
SO XBADJ    COOL2_14  -135.78 -160.44 -180.22 -194.53 -202.92 -205.15
SO YBADJ    COOL2_14    -9.47   32.79    3.76  -25.38   16.42   -0.66
SO YBADJ    COOL2_14   -17.72  -95.11  -97.93  -97.77  -94.64  -88.64
SO YBADJ    COOL2_14   -79.94  -68.81  -55.60  -40.69  -24.55   -7.66
SO YBADJ    COOL2_14     9.47   26.30   42.33   57.08   70.10   80.98
SO YBADJ    COOL2_14    89.40   95.11   97.93   97.77   94.64   88.64
SO YBADJ    COOL2_14    79.94   68.81   55.60   40.69   24.55    7.66


SO BUILDHGT COOL2_15    14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_15    31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_15    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_15    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_15    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_15    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_15    62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_15    24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_15   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_15    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_15   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_15   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_15   215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_15    43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_15   157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_15   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_15   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_15   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_15  -187.78 -183.39 -166.29 -168.75 -104.33 -109.74
SO XBADJ    COOL2_15  -111.81 -110.49  -23.87  -24.60  -28.32  -31.17
SO XBADJ    COOL2_15   -33.08  -33.98  -33.85  -32.70  -30.54  -27.46
SO XBADJ    COOL2_15   -28.13  -28.45  -27.90  -26.51  -24.31  -21.37
SO XBADJ    COOL2_15   -17.79  -13.66   -9.12  -37.77  -69.01  -98.16
SO XBADJ    COOL2_15  -124.32 -146.70 -164.62 -177.55 -185.08 -186.98
SO YBADJ    COOL2_15    -6.59  -20.35   12.61  -13.91   30.16   14.94
SO YBADJ    COOL2_15    -0.74  -16.40  -79.76  -79.83  -77.47  -72.76
SO YBADJ    COOL2_15   -65.84  -56.92  -46.27  -34.21  -21.11   -7.38
SO YBADJ    COOL2_15     6.59   20.35   33.49   45.62   56.36   65.39
SO YBADJ    COOL2_15    72.43   77.27   79.76   79.83   77.47   72.76
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SO YBADJ     COOL2_15   65.84   56.92   46.27   34.21   21.11    7.38


SO BUILDHGT COOL2_16   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_16   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_16   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_16   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_16  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_16   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_16  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_16  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_16  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_16   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_16  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_16  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_16  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_16  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ     COOL2_16 -173.20 -169.59 -153.69 -157.74 -156.99 -102.84
SO XBADJ     COOL2_16 -107.32 -108.54  -24.53  -27.84  -34.04  -39.21
SO XBADJ     COOL2_16  -43.18  -45.84  -47.11  -46.95  -45.36  -42.39
SO XBADJ     COOL2_16  -42.72  -42.25  -40.50  -37.52  -33.40  -28.27
SO XBADJ     COOL2_16  -22.27  -15.60   -8.46  -34.53  -63.29  -90.12
SO XBADJ     COOL2_16 -114.21 -134.84 -151.36 -163.29 -170.26 -172.05
SO YBADJ     COOL2_16   -3.34  -14.62   20.64   -3.81  -28.15   28.20
SO YBADJ     COOL2_16   13.51   -1.58  -64.83  -65.24  -63.67  -60.16
SO YBADJ     COOL2_16  -54.83  -47.83  -39.37  -29.72  -19.17   -8.04
SO YBADJ     COOL2_16    3.34   14.62   25.46   35.52   44.50   52.13
SO YBADJ     COOL2_16   58.17   62.45   64.83   65.24   63.67   60.16
SO YBADJ     COOL2_16   54.83   47.83   39.37   29.72   19.17    8.04


SO BUILDHGT COOL2_17   14.94   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL2_17   14.94   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL2_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_17   62.37   43.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL2_17  210.24   17.96   10.80   16.56  211.84  201.33
SO BUILDWID COOL2_17  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_17   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_17  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_17  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_17  215.91   23.30   29.34   34.48   38.57  135.28
SO BUILDLEN COOL2_17  104.00   43.51   42.54   43.42   97.33  129.33
SO BUILDLEN COOL2_17  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_17  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_17  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_17  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ     COOL2_17 -157.82 -173.69 -140.08 -145.64 -146.77  -98.99
SO XBADJ     COOL2_17  -76.14 -105.57 -106.18 -105.15  -39.10  -46.75
SO XBADJ     COOL2_17  -52.97  -57.58  -60.45  -61.48  -60.64  -57.95
SO XBADJ     COOL2_17  -58.09  -56.97  -54.12  -49.62  -43.62  -36.29
SO XBADJ     COOL2_17  -27.86  -18.58   -8.74  -32.10  -58.23  -82.58
SO XBADJ     COOL2_17 -104.43 -123.10 -138.03 -148.77 -154.98 -156.49
SO YBADJ     COOL2_17   -0.92   34.19   28.18    5.98  -16.41  -38.79
SO YBADJ     COOL2_17  -43.65   13.69   -1.07  -15.80  -48.95  -46.55
SO YBADJ     COOL2_17  -42.73  -37.61  -31.35  -24.14  -16.19   -7.76
SO YBADJ     COOL2_17    0.92    9.56   17.92   25.73   32.76   38.79
SO YBADJ     COOL2_17   43.65   47.17   49.27   49.87   48.95   46.55
SO YBADJ     COOL2_17   42.73   37.61   31.35   24.14   16.19    7.76


SO BUILDHGT COOL2_18   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_18   14.94   14.94   14.94   31.39   31.39   14.94
SO BUILDHGT COOL2_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_18   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_18   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_18  210.24  215.62  214.45   16.56   23.30  201.33
SO BUILDWID COOL2_18  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_18   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_18  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_18  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_18  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_18  104.00   69.55   32.99   43.42   43.33  129.33
SO BUILDLEN COOL2_18  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_18  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_18  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_18  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ     COOL2_18 -141.96 -139.77 -126.20 -133.40 -136.54 -135.54
SO XBADJ     COOL2_18  -70.80  -48.35  -24.44 -108.14 -106.79  -54.98
SO XBADJ     COOL2_18  -63.49  -70.07  -74.52  -76.71  -76.57  -74.10
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SO XBADJ    COOL2_18   -73.95   -72.07   -68.00   -61.86   -53.85   -44.20
SO XBADJ    COOL2_18   -33.20   -21.20    -8.55   -29.11   -52.53   -74.35
SO XBADJ    COOL2_18   -93.91  -110.61  -123.96  -133.54  -139.06  -140.35
SO YBADJ    COOL2_18     2.07    -3.86    36.42    16.50    -3.93   -24.23
SO YBADJ    COOL2_18   -28.41   -31.25   -33.13     0.06   -14.95   -32.66
SO YBADJ    COOL2_18   -30.49   -27.38   -23.45   -18.80   -13.58    -7.95
SO YBADJ    COOL2_18    -2.07     3.86     9.68    15.21    20.27    24.72
SO YBADJ    COOL2_18    28.41    31.25    33.13    34.01    33.85    32.66
SO YBADJ    COOL2_18    30.49    27.38    23.45    18.80    13.58     7.95

SO BUILDHGT COOL2_19    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL2_19    14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL2_19    31.39    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_19    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_19    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_19    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_19    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL2_19   210.24   215.62   214.45   215.91    23.30    29.34
SO BUILDWID COOL2_19    34.48   162.46   135.28   104.00    69.55    32.99
SO BUILDWID COOL2_19    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL2_19   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_19   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_19   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL2_19   104.00    69.55    32.99    62.37    43.33    41.93
SO BUILDLEN COOL2_19    39.26   180.68   198.48   210.24   215.62   214.45
SO BUILDLEN COOL2_19   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_19   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_19   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_19  -124.45  -123.01  -150.80  -119.63  -124.93  -126.43
SO XBADJ    COOL2_19   -64.47   -45.00   -24.16   -36.06  -112.60  -110.83
SO XBADJ    COOL2_19  -105.69   -83.47   -89.74   -93.27   -93.98   -91.82
SO XBADJ    COOL2_19   -91.46   -88.83   -83.49   -75.63   -65.46   -53.30
SO XBADJ    COOL2_19   -39.53   -24.55    -8.83   -26.31   -46.73   -65.72
SO XBADJ    COOL2_19   -82.72   -97.21  -108.74  -116.97  -121.64  -122.62
SO YBADJ    COOL2_19     4.88     1.94    22.39    27.68     9.48    -9.01
SO YBADJ    COOL2_19   -11.85   -13.83   -15.40   -16.50     1.81   -14.01
SO YBADJ    COOL2_19   -29.40   -15.77   -14.34   -12.47   -10.22    -7.67
SO YBADJ    COOL2_19    -4.88    -1.94     1.06     4.03     6.87     9.50
SO YBADJ    COOL2_19    11.85    13.83    15.40    16.50    17.09    17.17
SO YBADJ    COOL2_19    16.72    15.77    14.34    12.47    10.22     7.67

SO BUILDHGT COOL2_20    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL2_20    31.39    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL2_20    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_20    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_20    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_20    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_20    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL2_20    24.57   215.62   214.45   215.91    23.30    29.34
SO BUILDWID COOL2_20    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL2_20    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL2_20   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_20   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_20   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL2_20    43.16    69.55    32.99    62.37    43.33    41.93
SO BUILDLEN COOL2_20    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL2_20   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_20   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_20   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_20  -108.91  -108.13  -137.04  -142.96  -114.61  -118.33
SO XBADJ    COOL2_20  -118.45   -41.99   -23.88   -38.52  -117.71  -118.45
SO XBADJ    COOL2_20  -115.59  -109.21  -103.22  -107.96  -109.42  -107.55
SO XBADJ    COOL2_20  -107.00  -103.70   -97.26   -87.86   -75.78   -61.41
SO XBADJ    COOL2_20   -45.17   -27.56    -9.11   -23.86   -41.61   -58.10
SO XBADJ    COOL2_20   -72.83   -85.34   -95.26  -102.28  -106.20  -106.89
SO YBADJ    COOL2_20     7.33     7.05    30.02     8.31    21.35     4.47
SO YBADJ    COOL2_20   -12.54     1.61     0.33    -0.96    16.69    -0.24
SO YBADJ    COOL2_20   -17.17   -33.57    -6.23    -6.83    -7.22    -7.39
SO YBADJ    COOL2_20    -7.33    -7.05    -6.56    -5.87    -5.00    -3.98
SO YBADJ    COOL2_20    -2.84    -1.61    -0.33     0.96     2.22     3.41
SO YBADJ    COOL2_20     4.49     5.45     6.23     6.83     7.22     7.39

SO BUILDHGT COOL2_21    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL2_21    31.39    31.39    14.94    14.94    14.94    31.39
SO BUILDHGT COOL2_21    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_21    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL2_21    24.57    17.96   214.45   215.91   211.84    29.34
SO BUILDWID COOL2_21    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL2_21    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL2_21   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_21   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_21   215.91   211.84   201.33    34.48    38.57    41.50
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SO BUILDLEN COOL2_21    43.16    43.51    32.99    62.37    97.33    41.93
SO BUILDLEN COOL2_21    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL2_21   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_21   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_21   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_21   -90.76   -90.76   -88.01  -128.70  -132.52  -108.90
SO XBADJ    COOL2_21  -111.91  -111.52   -23.61   -41.45   -61.75  -127.41
SO XBADJ    COOL2_21  -127.20  -123.13  -119.01  -125.15  -127.48  -125.95
SO XBADJ    COOL2_21  -125.16  -121.08  -113.32  -102.12   -87.81   -70.84
SO XBADJ    COOL2_21   -51.71   -31.02    -9.38   -20.93   -35.57   -49.14
SO XBADJ    COOL2_21   -61.21   -71.43   -79.47   -85.10   -88.14   -88.50
SO YBADJ    COOL2_21    10.26    13.09    15.52    19.92     0.27    20.26
SO YBADJ    COOL2_21     4.65   -11.11    18.72    17.20    15.16    15.82
SO YBADJ    COOL2_21    -2.91   -21.54     3.20    -0.28    -3.76    -7.12
SO YBADJ    COOL2_21   -10.26   -13.09   -15.52   -17.48   -18.92   -19.77
SO YBADJ    COOL2_21   -20.03   -19.67   -18.72   -17.20   -15.16   -12.65
SO YBADJ    COOL2_21    -9.77    -6.58    -3.20     0.28     3.76     7.12


SO BUILDHGT COOL2_22    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL2_22    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL2_22    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL2_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_22    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL2_22    24.57    17.96    10.80   215.91   211.84   201.33
SO BUILDWID COOL2_22    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL2_22    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL2_22   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_22   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_22   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL2_22    43.16    43.51    42.54    62.37    97.33   129.33
SO BUILDLEN COOL2_22    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL2_22   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_22   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_22   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_22   -75.01   -75.77   -74.23  -116.55  -122.36  -124.46
SO XBADJ    COOL2_22  -106.61  -108.92  -107.93   -44.41   -67.41   -88.36
SO XBADJ    COOL2_22  -137.65  -135.52  -129.28  -140.27  -143.29  -141.96
SO XBADJ    COOL2_22  -140.90  -136.07  -127.10  -114.27   -97.96   -78.68
SO XBADJ    COOL2_22   -57.01   -33.61    -9.19   -17.96   -29.92   -40.97
SO XBADJ    COOL2_22   -50.77   -59.03   -65.50   -69.98   -72.33   -72.48
SO YBADJ    COOL2_22    13.23    18.75    23.70    30.37    12.66    -5.43
SO YBADJ    COOL2_22    19.77     4.70   -10.51    32.94    30.15    26.43
SO YBADJ    COOL2_22     9.24   -11.39   -31.68     5.02    -1.16    -7.31
SO YBADJ    COOL2_22   -13.23   -18.75   -23.70   -27.93   -31.31   -33.74
SO YBADJ    COOL2_22   -35.14   -35.48   -34.74   -32.94   -30.15   -26.43
SO YBADJ    COOL2_22   -21.92   -16.73   -11.04    -5.02     1.16     7.31

SO BUILDHGT COOL2_23    14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL2_23    31.39    14.94    31.39    31.39    14.94    14.94
SO BUILDHGT COOL2_23    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL2_23    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_23    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_23    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_23    62.37    97.33   129.33   157.40    35.39    30.44
SO BUILDWID COOL2_23    24.57   215.62    10.80    16.56   211.84   201.33
SO BUILDWID COOL2_23    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL2_23    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL2_23   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_23   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_23   215.91   211.84   201.33   184.70    38.57    41.50
SO BUILDLEN COOL2_23    43.16    69.55    42.54    43.42    97.33   129.33
SO BUILDLEN COOL2_23    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL2_23   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_23   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_23   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_23   -59.24   -60.73   -60.37   -58.17  -112.07  -116.45
SO XBADJ    COOL2_23  -117.29   -33.16  -107.93  -108.01   -72.89   -96.37
SO XBADJ    COOL2_23  -147.94  -147.79  -143.15  -155.31  -159.06  -157.97
SO XBADJ    COOL2_23  -156.67  -151.11  -140.96  -126.53  -108.26   -86.69
SO XBADJ    COOL2_23   -62.49   -36.39    -9.19   -15.18   -24.44   -32.96
SO XBADJ    COOL2_23   -40.48   -46.77   -51.63   -54.93   -56.56   -56.47
SO YBADJ    COOL2_23    16.01    24.22    31.70    38.22    24.92     8.43
SO YBADJ    COOL2_23    -8.31    51.25     5.50    -9.63    45.19    40.30
SO YBADJ    COOL2_23    21.51    -1.10   -23.67    10.49     1.62    -7.31
SO YBADJ    COOL2_23   -16.01   -24.22   -31.70   -38.22   -43.57   -47.60
SO YBADJ    COOL2_23   -50.19   -51.25   -50.75   -48.71   -45.19   -40.30
SO YBADJ    COOL2_23   -34.18   -27.02   -19.05   -10.49    -1.62     7.31


SO BUILDHGT COOL2_24    14.94    14.94    14.94    14.94    14.94    31.39
SO BUILDHGT COOL2_24    31.39    31.39    14.94    31.39    31.39    31.39
SO BUILDHGT COOL2_24    14.94    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL2_24    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_24    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_24    14.94    14.94    14.94    14.94    14.94    14.94
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SO BUILDWID COOL2_24   62.37    97.33   129.33   157.40   180.68    30.44
SO BUILDWID COOL2_24   24.57    17.96   214.45    16.56    23.30    29.34
SO BUILDWID COOL2_24  184.70    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL2_24   62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL2_24  210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_24  184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_24  215.91   211.84   201.33   184.70   162.46    41.50
SO BUILDLEN COOL2_24   43.16    43.51    32.99    43.42    43.33    41.93
SO BUILDLEN COOL2_24  157.40    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL2_24  215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_24  104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_24  157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_24  -42.50   -44.75   -45.64   -45.15   -43.28  -107.95
SO XBADJ    COOL2_24 -111.48  -111.62   -23.80  -110.96  -110.80  -107.27
SO XBADJ    COOL2_24 -127.84  -160.81  -157.87  -171.29  -175.80  -174.97
SO XBADJ    COOL2_24 -173.41  -167.09  -155.68  -139.55  -119.18   -95.19
SO XBADJ    COOL2_24  -68.30   -39.34    -9.19   -12.23   -18.63   -24.46
SO XBADJ    COOL2_24  -29.55   -33.74   -36.91   -38.96   -39.82   -39.47
SO YBADJ    COOL2_24   18.96    30.04    40.20    49.15    56.60    23.16
SO YBADJ    COOL2_24    7.66    -8.07    67.75     7.11    -8.49   -23.84
SO YBADJ    COOL2_24   47.20     9.83   -15.17    16.31     4.57    -7.31
SO YBADJ    COOL2_24  -18.96   -30.04   -40.20   -49.15   -56.60   -62.33
SO YBADJ    COOL2_24  -66.16   -67.99   -67.75   -65.45   -61.17   -55.02
SO YBADJ    COOL2_24  -47.20   -37.95   -27.55   -16.31    -4.57     7.31

SO BUILDHGT COOL2_25   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_25   31.39    31.39    31.39    14.94    31.39    31.39
SO BUILDHGT COOL2_25   31.39    31.39    31.39    31.39    14.94    14.94
SO BUILDHGT COOL2_25   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_25   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_25   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_25   62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL2_25   24.57    17.96    10.80   215.91    23.30    29.34
SO BUILDWID COOL2_25   34.48    38.57    41.50    43.16    69.55    32.99
SO BUILDWID COOL2_25   62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL2_25  210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_25  184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_25  215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_25   43.16    43.51    42.54    62.37    43.33    41.93
SO BUILDLEN COOL2_25   39.26    35.39    30.44    24.57   215.62   214.45
SO BUILDLEN COOL2_25  215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_25  104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_25  157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_25  -25.76   -28.78   -30.92   -32.12   -32.35   -31.59
SO XBADJ    COOL2_25 -105.66  -108.67  -108.37   -53.10  -116.61  -115.77
SO XBADJ    COOL2_25 -111.40  -173.83  -172.59  -166.11  -192.54  -191.97
SO XBADJ    COOL2_25 -190.15  -183.06  -170.41  -152.58  -130.11  -103.69
SO XBADJ    COOL2_25  -74.12   -42.30    -9.19    -9.27   -12.81   -15.96
SO XBADJ    COOL2_25  -18.62   -20.72   -22.19   -22.98   -23.08   -22.47
SO YBADJ    COOL2_25   21.91    35.85    48.70    60.07    69.62    77.05
SO YBADJ    COOL2_25   23.64     8.68    -6.55    82.19     7.48    -9.12
SO YBADJ    COOL2_25  -25.44    20.75    -6.67   -33.90     7.52    -7.31
SO YBADJ    COOL2_25  -21.91   -35.85   -48.70   -60.07   -69.62   -77.05
SO YBADJ    COOL2_25  -82.14   -84.73   -84.75   -82.19   -77.14   -69.74
SO YBADJ    COOL2_25  -60.23   -48.88   -36.05   -22.12    -7.52     7.31

SO BUILDHGT COOL2_26   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_26   14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL2_26   31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_26   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_26   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_26   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_26   62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL2_26  210.24   215.62    10.80    16.56    23.30    29.34
SO BUILDWID COOL2_26   34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL2_26   62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL2_26  210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_26  184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_26  215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_26  104.00    69.55    42.54    43.42    43.33    41.93
SO BUILDLEN COOL2_26   39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL2_26  215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_26  104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_26  157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_26  -10.00   -13.74   -17.06   -19.87   -22.07   -23.59
SO XBADJ    COOL2_26  -24.41   -24.48  -108.37  -109.13  -106.75  -123.77
SO XBADJ    COOL2_26 -121.69  -115.91  -190.15  -202.30  -208.30  -207.97
SO XBADJ    COOL2_26 -205.91  -198.10  -184.26  -164.83  -140.39  -111.69
SO XBADJ    COOL2_26  -79.59   -45.08    -9.19    -6.50    -7.34    -7.96
SO XBADJ    COOL2_26   -8.34    -8.46    -8.33    -7.95    -7.32    -6.47
SO YBADJ    COOL2_26   24.69    41.32    56.70    70.36    81.88    90.91
SO YBADJ    COOL2_26   97.17   100.49     9.45    -5.82   -20.91     4.74
SO YBADJ    COOL2_26  -13.19   -30.71    44.05    27.59    10.30    -7.31
SO YBADJ    COOL2_26  -24.69   -41.32   -56.70   -70.36   -81.88   -90.91
SO YBADJ    COOL2_26  -97.17  -100.49  -100.75   -97.95   -92.18   -83.60
SO YBADJ    COOL2_26  -72.48   -59.16   -44.05   -27.59   -10.30     7.31
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** OTHER BACKGROUND PSD INCREMENT AFFECTING SOURCES

**       Hubbard Construction Company
   LOCATION     HUBB23    POINT 562626.9  2951930.2  4.00
   LOCATION     HUBFUG  VOLUME 562626.970 2951929.820 4.00

**       Palm Beach Aggregates, Inc.
   LOCATION     PBAFUG  VOLUME 562750.8  2951929.2 4.00

   LOCATION     PBARD1  VOLUME 562876.490 2952732.444 4.00
   LOCATION     PBARD2  VOLUME 562874.973 2952714.505 4.00
   LOCATION     PBARD3  VOLUME 562873.456 2952696.566 4.00
   LOCATION     PBARD4  VOLUME 562871.939 2952678.626 4.00
   LOCATION     PBARD5  VOLUME 562870.422 2952660.687 4.00
   LOCATION     PBARD6  VOLUME 562868.905 2952642.748 4.00
   LOCATION     PBARD7  VOLUME 562867.388 2952624.809 4.00
   LOCATION     PBARD8  VOLUME 562865.871 2952606.869 4.00
   LOCATION     PBARD9  VOLUME 562864.354 2952588.930 4.00
   LOCATION     PBARD10 VOLUME 562862.837 2952570.991 4.00
   LOCATION     PBARD11 VOLUME 562861.320 2952553.052 4.00
   LOCATION     PBARD12 VOLUME 562859.803 2952535.112 4.00
   LOCATION     PBARD13 VOLUME 562858.286 2952517.173 4.00
   LOCATION     PBARD14 VOLUME 562856.769 2952499.234 4.00
   LOCATION     PBARD15 VOLUME 562855.252 2952481.294 4.00
   LOCATION     PBARD16 VOLUME 562853.735 2952463.355 4.00
   LOCATION     PBARD17 VOLUME 562852.218 2952445.416 4.00
   LOCATION     PBARD18 VOLUME 562850.701 2952427.477 4.00
   LOCATION     PBARD19 VOLUME 562849.184 2952409.537 4.00
   LOCATION     PBARD20 VOLUME 562847.667 2952391.598 4.00
   LOCATION     PBARD21 VOLUME 562846.150 2952373.659 4.00
   LOCATION     PBARD22 VOLUME 562844.633 2952355.720 4.00
   LOCATION     PBARD23 VOLUME 562843.117 2952337.780 4.00
   LOCATION     PBARD24 VOLUME 562841.600 2952319.841 4.00
   LOCATION     PBARD25 VOLUME 562840.083 2952301.902 4.00
   LOCATION     PBARD26 VOLUME 562838.566 2952283.962 4.00
   LOCATION     PBARD27 VOLUME 562837.049 2952266.023 4.00
   LOCATION     PBARD28 VOLUME 562835.532 2952248.084 4.00
   LOCATION     PBARD29 VOLUME 562834.015 2952230.145 4.00
   LOCATION     PBARD30 VOLUME 562832.498 2952212.205 4.00
   LOCATION     PBARD31 VOLUME 562830.981 2952194.266 4.00
   LOCATION     PBARD32 VOLUME 562829.464 2952176.327 4.00
   LOCATION     PBARD33 VOLUME 562827.947 2952158.388 4.00
   LOCATION     PBARD34 VOLUME 562826.430 2952140.448 4.00
   LOCATION     PBARD35 VOLUME 562824.913 2952122.509 4.00
   LOCATION     PBARD36 VOLUME 562823.396 2952104.570 4.00
   LOCATION     PBARD37 VOLUME 562821.879 2952086.630 4.00
   LOCATION     PBARD38 VOLUME 562820.362 2952068.691 4.00
   LOCATION     PBARD39 VOLUME 562818.845 2952050.752 4.00
   LOCATION     PBARD40 VOLUME 562817.328 2952032.813 4.00
   LOCATION     PBARD41 VOLUME 562815.811 2952014.873 4.00
   LOCATION     PBARD42 VOLUME 562814.294 2951996.934 4.00
   LOCATION     PBARD43 VOLUME 562812.777 2951978.995 4.00
   LOCATION     PBARD44 VOLUME 562811.260 2951961.056 4.00

**       SFWMD - Pump Station S-5A
SO LOCATION     PS_S5A    POINT    562860.0         2951370.0        4.0

**       SFWMD - Pump Station S-319
SO LOCATION     PS_S319   POINT    566300.0         2951220.0        1.5

**       Atlantic Sugar
SO LOCATION     ATLSUG14 POINT     552900.0         2945200.0        1.5
SO LOCATION     ATLSUG5   POINT    552900.0         2945200.0        1.5

**       Osceola Farms
SO LOCATION     OSBLR5B   POINT    544200.0         2968000.0        1.5

**       Sugar Cane Growers Co-Op
SO LOCATION     SCBLR1N   POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR2N   POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR3N   POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR4N   POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR5N   POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR8N   POINT    534900.0         2953300.0        1.5

SO LOCATION     SCBLR1F   POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR4F   POINT    534900.0         2953300.0        1.5

**       City of Lake Worth Utilities
SO LOCATION     LAKWTHDG POINT     592800.0         2943700.0        7.6
SO LOCATION     LAKWTHHR POINT     592800.0         2943700.0        7.6
SO LOCATION     LAKWTHU3 POINT     592800.0         2943700.0        7.6
SO LOCATION     LAKWTHU4 POINT     592800.0         2943700.0        7.6
SO LOCATION     LAKWTHU5 POINT     592800.0         2943700.0        7.6

**       FPL -Riviera Beach
SO LOCATION     RIVU34    POINT    593270.0         2960620.0        3.0
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**      New Hope Power Partnership (Okeelanta)
SO LOCATION     OKCOGENF POINT   524920.0        2939440.0       1.5

**      Okeelanta
SO LOCATION     OKBLR16  POINT   524700.0        2939500.0       1.5

**      FPL - Martin Power Plant
SO LOCATION     MART12   POINT   542680.0        2992650.0       7.6
SO LOCATION     MART34   POINT   542680.0        2992650.0       7.6
SO LOCATION     MARTAUX  POINT   542680.0        2992650.0       7.6
SO LOCATION     MARTGEN  POINT   542680.0        2992650.0       7.6
SO LOCATION     MART8OIL POINT   542680.0        2992650.0       7.6

**      U.S. Sugar Clewiston Mill and Refinery
SO LOCATION     USSBLR1N POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR2N POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR4N POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR7N POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR8N POINT   506100.0        2956900.0       6.1

SO LOCATION     USSBLR1F POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR2F POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR4F POINT   506100.0        2956900.0       6.1

SO LOCATION     S1       POINT   506100.0        2956900.0       6.1
SO LOCATION     S2       POINT   506100.0        2956900.0       6.1
SO LOCATION     S3       POINT   506100.0        2956900.0       6.1
SO LOCATION     S4       POINT   506100.0        2956900.0       6.1
SO LOCATION     S5       POINT   506100.0        2956900.0       6.1
SO LOCATION     S6       POINT   506100.0        2956900.0       6.1
SO LOCATION     S7       POINT   506100.0        2956900.0       6.1
SO LOCATION     S8       POINT   506100.0        2956900.0       6.1
SO LOCATION     S9       POINT   506100.0        2956900.0       6.1
SO LOCATION     S10      POINT   506100.0        2956900.0       6.1
SO LOCATION     S11      POINT   506100.0        2956900.0       6.1
SO LOCATION     S12      POINT   506100.0        2956900.0       6.1
SO LOCATION     S13      POINT   506100.0        2956900.0       6.1

SO LOCATION     BT3LS1   POINT   506100.0        2956900.0       6.1
SO LOCATION     BT3LS2   POINT   506100.0        2956900.0       6.1
SO LOCATION     BT3LRR   POINT   506100.0        2956900.0       6.1
SO LOCATION     MOLSALTS POINT   506100.0        2956900.0       6.1
SO LOCATION     MOLLSS   POINT   506100.0        2956900.0       6.1
SO LOCATION     WWTPLS   POINT   506100.0        2956900.0       6.1

**      Florida Power & Light (PFL) - Fort Lauderdale
SO LOCATION     LAUDU45  POINT   579390.0        2883360.0       1.5
SO LOCATION     LDGT1_12 POINT   579390.0        2883360.0       1.5
SO LOCATION     LDGT1324 POINT   579390.0        2883360.0       1.5

**      FPL - Port Everglades Plant
SO LOCATION     PTEVU12  POINT   587400.0        2885300.0       1.5
SO LOCATION     PTEVU34  POINT   587400.0        2885300.0       1.5
SO LOCATION     PTEVGTS  POINT   587400.0        2885300.0       1.5

**      Vero Beach Power
SO LOCATION     VERBU1   POINT   561400.0        3056500.0       1.5
SO LOCATION     VERBU2   POINT   561400.0        3056500.0       1.5
SO LOCATION     VERBU3   POINT   561400.0        3056500.0       1.5
SO LOCATION     VERBU4   POINT   561400.0        3056500.0       1.5
SO LOCATION     VERBU5   POINT   561400.0        3056500.0       1.5
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**      Hubbard Construction Company
   SRCPARAM     HUBB23   1.23  9.14  394.3  30.54  1.16
   SRCPARAM     HUBFUG   0.80  2.29 14.18 2.13

   EMISFACT     HUBFUG HROFDY 0 0 0 0 0 0 1 1 1 1 1 1
   EMISFACT     HUBFUG HROFDY 1 1 1 1 1 1 0 0 0 0 0 0

**      Palm Beach Aggregates, Inc.
   SRCPARAM     PBAFUG  0.4875  2.29 14.18 2.13

   SRCPARAM     PBARD1  0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD2  0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD3  0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD4  0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD5  0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD6  0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD7  0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD8  0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD9  0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD10 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD11 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD12 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD13 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD14 0.00792 2.74 8.37 2.55
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   SRCPARAM     PBARD15 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD16 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD17 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD18 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD19 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD20 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD21 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD22 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD23 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD24 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD25 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD26 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD27 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD28 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD29 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD30 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD31 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD32 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD33 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD34 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD35 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD36 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD37 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD38 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD39 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD40 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD41 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD42 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD43 0.00792 2.74 8.37 2.55
   SRCPARAM     PBARD44 0.00792 2.74 8.37 2.55

**       SFWMD - Pump Station S-5A
SO SRCPARAM     PS_S5A   0.42     4.88     686     5.30     0.99

**       SFWMD - Pump Station S-319
SO SRCPARAM     PS_S319  0.04     17.68    616     33.41    0.46

**       Atlantic Sugar
SO SRCPARAM     ATLSUG14 40.28    27.43    346     17.97    1.83
SO SRCPARAM     ATLSUG5  4.50     27.43    339     19.24    1.68

**       Osceola Farms
SO SRCPARAM     OSBLR5B  40.48    27.43    339     14.23    1.52

**       Sugar Cane Growers Co-Op
SO SRCPARAM     SCBLR1N  8.40     45.72    342     15.12    2.13
SO SRCPARAM     SCBLR2N  8.32     45.72    342     15.58    2.13
SO SRCPARAM     SCBLR3N  6.62     54.86    342     12.28    1.62
SO SRCPARAM     SCBLR4N  14.43    54.86    345     16.49    2.72
SO SRCPARAM     SCBLR5N  13.83    45.72    344     23.50    2.13
SO SRCPARAM     SCBLR8N  9.53     47.24    341     11.46    2.90

SO SRCPARAM     SCBLR1F  8.40     45.72    342     15.12    2.13
SO SRCPARAM     SCBLR4F  14.43    54.86    345     16.49    2.72

**       City of Lake Worth Utilities
SO SRCPARAM     LAKWTHDG 3.02     5.18     626     37.09    0.56
SO SRCPARAM     LAKWTHHR 1.64     14.02    720     24.84    4.88
SO SRCPARAM     LAKWTHU3 2.91     34.44    418     15.70    2.13
SO SRCPARAM     LAKWTHU4 3.75     35.05    418     17.00    2.29
SO SRCPARAM     LAKWTHU5 1.13     22.86    480     27.80    3.05

**       FPL -Riviera Beach
SO SRCPARAM     RIVU34   82.15    90.83    401     26.85    4.88

**       New Hope Power Partnership (Okeelanta)
SO SRCPARAM     OKCOGENF 8.13     60.66    451     20.63    3.05

**       Okeelanta
SO SRCPARAM     OKBLR16  0.77     22.86    474     30.69    1.52

**       FPL - Martin Power Plant
SO SRCPARAM     MART12   227.81   152.10   443     20.94    7.99
SO SRCPARAM     MART34   30.54    64.92    411     18.90    6.10
SO SRCPARAM     MARTAUX  0.01     18.29    535     15.24    1.10
SO SRCPARAM     MARTGEN  0.27     7.62     786     39.62    0.30
SO SRCPARAM     MART8OIL 18.65    36.58    420     22.40    5.79

**       U.S. Sugar Clewiston Mill and Refinery
SO SRCPARAM     USSBLR1N 15.61    64.92    339     25.27    2.44
SO SRCPARAM     USSBLR2N 14.08    64.92    339     25.27    2.44
SO SRCPARAM     USSBLR4N 11.34    45.72    344     27.04    2.50
SO SRCPARAM     USSBLR7N 2.79     68.58    441     28.80    2.44
SO SRCPARAM     USSBLR8N 3.39     60.66    430     23.07    3.32

SO SRCPARAM     USSBLR1F 15.61    64.92    339     25.27    2.44
SO SRCPARAM     USSBLR2F 14.08    64.92    339     25.27    2.44
SO SRCPARAM     USSBLR4F 11.34    45.72    344     27.04    2.50
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SO SRCPARAM     S1       0.01    19.81   293     0.01    0.15
SO SRCPARAM     S2       0.01    19.81   305     0.01    0.15
SO SRCPARAM     S3       0.01    19.81   305     0.01    0.15
SO SRCPARAM     S4       0.03    18.29   325     0.01    0.59
SO SRCPARAM     S5       0.01    21.95   325     0.01    0.29
SO SRCPARAM     S6       0.02    21.95   325     0.01    0.59
SO SRCPARAM     S7       0.01    39.62   316     0.01    0.42
SO SRCPARAM     S8       0.01    39.62   316     0.01    0.42
SO SRCPARAM     S9       0.01    39.62   316     0.01    0.42
SO SRCPARAM     S10      0.18    3.05    319     0.01    1.46
SO SRCPARAM     S11      0.21    22.86   319     0.01    2.23
SO SRCPARAM     S12      0.08    9.14    344     6.95    0.61
SO SRCPARAM     S13      0.53    24.38   305     0.01    2.23

SO SRCPARAM     BT3LS1   0.01    19.81   297     0.01    0.20
SO SRCPARAM     BT3LS2   0.01    19.81   297     0.01    0.20
SO SRCPARAM     BT3LRR   0.01    19.81   297     0.01    0.20
SO SRCPARAM     MOLSALTS 0.02    9.14    297     0.01    0.20
SO SRCPARAM     MOLLSS   0.02    12.19   297     0.01    0.20
SO SRCPARAM     WWTPLS   0.02    12.19   297     0.01    0.20

**      Florida Power & Light (PFL) - Fort Lauderdale
SO SRCPARAM     LAUDU45  29.23   45.72   439     48.37   5.49
SO SRCPARAM     LDGT1_12 8.19    13.72   733     28.44   4.75
SO SRCPARAM     LDGT1324 8.19    13.72   733     28.44   4.75

**      FPL - Port Everglades Plant
SO SRCPARAM     PTEVU12  18.14   104.50  416     26.72   4.27
SO SRCPARAM     PTEVU34 105.34   104.50  415     23.88   5.52
SO SRCPARAM     PTEVGTS  7.64    13.40   733     28.43   4.75

**      Vero Beach Power
SO SRCPARAM     VERBU1   2.00    60.96   416     32.16   1.07
SO SRCPARAM     VERBU2   3.47    60.96   448     41.82   1.07
SO SRCPARAM     VERBU3   15.50   60.96   445     14.11   2.23
SO SRCPARAM     VERBU4   8.63    60.96   413     23.68   2.13
SO SRCPARAM     VERBU5   1.44    38.10   483     25.02   3.35

**      Atlantic Sugar
SO EMISFACT ATLSUG14           MONTH 1 1 1 1 0 0 0 0 0 1 1 1

**      Osceola Farms
SO EMISFACT OSBLR5B            MONTH 1 1 1 1 0 0 0 0 0 1 1 1

**      Sugar Cane Growers Co-Op
SO EMISFACT SCBLR1N-SCBLR8N    MONTH 1 1 1 1 0 0 0 0 0 1 1 1
SO EMISFACT SCBLR1F-SCBLR4F    MONTH 0 0 0 0 1 1 1 1 1 0 0 0

**      U.S. Sugar Clewiston Mill and Refinery
SO EMISFACT USSBLR1N-USSBLR8N  MONTH 1 1 1 1 0 0 0 0 0 1 1 1
SO EMISFACT USSBLR1F-USSBLR4F  MONTH 0 0 0 0 1 1 1 1 1 0 0 0

   SRCGROUP ALL
SO FINISHED
**
****************************************
** ISCST3 Receptor Pathway
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**
**
RE STARTING
** NO RECEPTORS ON PALM BEACH AGGREGATES PROPERTY
   INCLUDED WC3150XY.ROU
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
**   SURFFILE C:\amodmet\PBIMIA01.SFC
**   PROFFILE C:\amodmet\PBIMIA01.PFL
   SURFFILE PBIMIA01.SFC
   PROFFILE PBIMIA01.PFL
   SURFDATA 12844 2001 WEST_PALM_BEACH/INT'L_ARPT
   UAIRDATA 92803 2001 MIAMI/FIU
   PROFBASE 19 FEET
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE SIXTH
```

OU FINISHED
**

S:\Projects\FPL\West County Unit3 Aug07\report\MODEL FILES APPENDIX\AppenF\TEXTFILES AERMOD\PMAQS.sum

```
  *** AERMOD - VERSION 07026 ***    *** 2005 FPL WEST COUNTY UNIT 3 - 24-HR PM10 AAQS ANALYS 11/16/07        ***
                                   *** PM10 IMPACTS, CT/HRSGs ON OIL, INCLUDES PBA AND HUBBARD CONST         ***
**MODELOPTs:
CONC                       DFAULT ELEV                        NOWARN       MULTYR

                                          *** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

                                   ** CONC OF PM10      IN MICROGRAMS/M**3                                **

                                                     DATE
GROUP ID                          AVERAGE CONC     (YYMMDDHH)          RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH  6TH HIGH VALUE IS      37.07253c ON 02112424: AT (  562928.56,  2951560.25,     4.00,     4.00,


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
  *** AERMOD - VERSION 07026 ***    *** 2005 FPL WEST COUNTY UNIT 3 - 24-HR PM10 AAQS ANALYS 11/16/07        ***
                                   *** PM10 IMPACTS, CT/HRSGs ON OIL, INCLUDES PBA AND HUBBARD CONST         ***
**MODELOPTs:
CONC                       DFAULT ELEV                        NOWARN       MULTYR

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of           0 Fatal Error Message(s)
A Total of           3 Warning Message(s)
A Total of         780 Informational Message(s)

A Total of         780 Calm Hours Identified

A Total of           0 Missing Hours Identified (  0.00 Percent)

   ******** FATAL ERROR MESSAGES ********
              ***   NONE   ***

   ********   WARNING MESSAGES   ********
 ** WARNINGS SUPPRESSED BY NOWARN OPTION **

   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
```

```
  *** AERMOD - VERSION 07026 ***    *** 2005 FPL WEST COUNTY UNIT 3 - 24-HR PM10 AAQS ANALYS 11/16/07        ***
                                    *** PM10 IMPACTS, CT/HRSGs ON OIL, WITHOUT PBA and HUBBARD CONST         ***
**MODELOPTs:
CONC                        DFAULT ELEV                         NOWARN      MULTYR

                                             *** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

                                     ** CONC OF PM10     IN MICROGRAMS/M**3                          **

                                                     DATE
GROUP ID                          AVERAGE CONC     (YYMMDDHH)           RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH  6TH HIGH VALUE IS     26.48623  ON 04030324: AT (  562750.00,  2951400.00,     4.00,     4.00,

 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
  *** AERMOD - VERSION 07026 ***    *** 2005 FPL WEST COUNTY UNIT 3 - 24-HR PM10 AAQS ANALYS 11/16/07        ***
                                    *** PM10 IMPACTS, CT/HRSGs ON OIL, WITHOUT PBA and HUBBARD CONST         ***
**MODELOPTs:
CONC                        DFAULT ELEV                         NOWARN      MULTYR

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of          0 Fatal Error Message(s)
A Total of          3 Warning Message(s)
A Total of        780 Informational Message(s)

A Total of        780 Calm Hours Identified

A Total of          0 Missing Hours Identified (  0.00 Percent)

   ******** FATAL ERROR MESSAGES ********
              ***   NONE   ***

   ********   WARNING MESSAGES   ********
 ** WARNINGS SUPPRESSED BY NOWARN OPTION **

   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
```

AERMOD

PSD CLASS II INCREMENT ANALYSIS
24-HOUR SO_2 CONCENTRATIONS

```
CO STARTING
   TITLEONE 2001 FPL WEST COUNTY UNIT 3 - 24-HOUR SO2 PSD CL2 ANALYSIS 11/16/07
   TITLETWO CT/HRSGs ON GAS WITH DB, WITH HUBBARD CONSTRUCTION
   MODELOPT DFAULT CONC NOWARN
   AVERTIME 24
   POLLUTID SO2
   RUNORNOT RUN
CO FINISHED
**
****************************************
** ISCST3 Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** WEST COUNTY UNIT 3 SOURCES, HRSGS ON GAS WITH DB, BASE LOAD, 95 DEG
   LOCATION G3A1095 POINT 562202.790 2952748.590 4.000
   LOCATION G3B1095 POINT 562201.600 2952654.460 4.000
   LOCATION G3C1095 POINT 562200.640 2952609.610 4.000
   LOCATION FULHEAT3   POINT  562195.690 2952917.930 4.000
** Source Parameters **
** 100% Load, 95 F
   SRCPARAM G3A1095  1.97  45.4  357.5    16.67  6.71
   SRCPARAM G3B1095  1.97  45.4  357.5    16.67  6.71
   SRCPARAM G3C1095  1.97  45.4  357.5    16.67  6.71
   SRCPARAM FULHEAT3 0.0068 9.14  533.2 16.15 0.305

** Building Downwash **
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3A1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID G3A1095     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3A1095     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3A1095     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID G3A1095     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3A1095     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3A1095     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN G3A1095     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3A1095     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3A1095     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN G3A1095     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3A1095     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3A1095     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    G3A1095   -105.97 -109.86 -110.42   -35.01   -40.32   -44.41
SO XBADJ    G3A1095    -47.15   -48.46   -48.29   -48.24   -46.89   -44.11
SO XBADJ    G3A1095    -40.00   -34.67   -28.29   -21.05   -13.17    -4.88
SO XBADJ    G3A1095     -3.08    -1.92    -0.71     0.53     1.75     2.92
SO XBADJ    G3A1095      3.99     4.95     5.76     4.82     3.55     2.18
SO XBADJ    G3A1095      0.74    -0.72    -2.15    -3.53    -4.79  -145.00
SO YBADJ    G3A1095     11.56    -5.58   -22.55    20.37    16.98    13.07
SO YBADJ    G3A1095      8.76     4.19    -0.51    -5.20    -9.73   -13.96
SO YBADJ    G3A1095    -17.77   -21.03   -23.66   -25.57   -26.71   -27.03
SO YBADJ    G3A1095    -26.53   -25.22   -23.15   -20.37   -16.98   -13.07
SO YBADJ    G3A1095     -8.76    -4.19     0.51     5.20     9.73    13.96
SO YBADJ    G3A1095     17.77    21.03    23.66    25.57    26.71    29.22


SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3B1095     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID G3B1095     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3B1095     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3B1095     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID G3B1095     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3B1095     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3B1095     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN G3B1095     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3B1095     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3B1095     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN G3B1095     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3B1095     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3B1095     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    G3B1095    -13.06   -21.00   -28.30   -34.75   -40.13   -67.76
SO XBADJ    G3B1095    -47.12   -48.51   -48.42   -48.44   -47.16   -44.45
SO XBADJ    G3B1095    -40.38   -35.09 -109.21 -109.09 -105.66    40.08
SO XBADJ    G3B1095     -3.50    -2.30    -1.03     0.27     1.56    26.26
SO XBADJ    G3B1095      3.96     5.00     5.89     5.02     3.83     2.52
SO XBADJ    G3B1095      1.13    -0.29    -1.70    -3.06   -48.90   -50.87
SO YBADJ    G3B1095     26.73    25.49    23.48    20.76    17.40   -25.37
SO YBADJ    G3B1095      9.22     4.65    -0.07    -4.78    -9.35   -13.64
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SO YBADJ     G3B1095    -17.51   -20.84    24.43     7.74    -9.19   -28.03
SO YBADJ     G3B1095    -26.73   -25.49   -23.48   -20.76   -17.40    25.37
SO YBADJ     G3B1095     -9.22    -4.65     0.07     4.78     9.35    13.64
SO YBADJ     G3B1095     17.51    20.84    23.55    25.54    35.50    28.03


SO BUILDHGT G3C1095      31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3C1095      31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3C1095      31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3C1095      31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3C1095      31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT G3C1095      31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID G3C1095      43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3C1095      24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3C1095      34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID G3C1095      43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID G3C1095      24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID G3C1095      34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN G3C1095      16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3C1095      43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3C1095      39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN G3C1095      16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN G3C1095      43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN G3C1095      39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ     G3C1095     31.27   -21.50   -28.74   -35.12   -40.43   -44.50
SO XBADJ     G3C1095    -47.23   -48.52   -48.34   -48.26   -46.89   -66.04
SO XBADJ     G3C1095    -39.96   -34.62   -28.22   -20.96  -149.66    -4.77
SO XBADJ     G3C1095    -47.83    -1.81    -0.59     0.64     1.85     3.01
SO XBADJ     G3C1095      4.07     5.01     5.80     4.84     3.56    24.11
SO XBADJ     G3C1095      0.71    -0.77    -2.23    -3.61    -4.89    -6.02
SO YBADJ     G3C1095     33.57    25.23    23.13    20.34    16.92    12.99
SO YBADJ     G3C1095      8.67     4.09    -0.62    -5.32    -9.85    25.69
SO YBADJ     G3C1095    -17.88   -21.14   -23.76   -25.65    -0.45   -27.07
SO YBADJ     G3C1095    -33.57   -25.23   -23.13   -20.34   -16.92   -12.99
SO YBADJ     G3C1095     -8.67    -4.09     0.62     5.32     9.85   -25.69
SO YBADJ     G3C1095     17.88    21.14    23.76    25.65    26.77    27.07

SO BUILDHGT FULHEAT3      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT3      0.00     0.00     0.00     0.00     0.00    26.82
SO BUILDHGT FULHEAT3     26.82    26.82    31.39    31.39    31.39    31.39
SO BUILDHGT FULHEAT3     31.39     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT3      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT3      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT3      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT3      0.00     0.00     0.00     0.00     0.00    25.00
SO BUILDWID FULHEAT3     26.64    27.47    41.50    43.16    43.51    42.54
SO BUILDWID FULHEAT3     43.42     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT3      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT3      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT3      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT3      0.00     0.00     0.00     0.00     0.00    27.46
SO BUILDLEN FULHEAT3     27.47    26.64    30.44    24.57    17.96    10.80
SO BUILDLEN FULHEAT3     16.56     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT3      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT3      0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ     FULHEAT3     0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ     FULHEAT3     0.00     0.00     0.00     0.00     0.00  -146.49
SO XBADJ     FULHEAT3 -147.95  -144.92  -102.79  -104.28  -102.60  -143.85
SO XBADJ     FULHEAT3  -96.66     0.00     0.00     0.00     0.00     0.00
SO XBADJ     FULHEAT3     0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ     FULHEAT3     0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ     FULHEAT3     0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ     FULHEAT3     0.00     0.00     0.00     0.00     0.00    20.00
SO YBADJ     FULHEAT3    -3.36   -26.61    33.12    17.41     1.18   -14.66
SO YBADJ     FULHEAT3   -30.92     0.00     0.00     0.00     0.00     0.00
SO YBADJ     FULHEAT3     0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ     FULHEAT3     0.00     0.00     0.00     0.00     0.00     0.00

***********PSD CLASS II INCREMENT CONSUMING SOURCES*****************

**      FPL West County Energy Center (WCEC)
   LOCATION FPLWC1A  POINT 562217.400 2953555.830 4.000
   LOCATION FPLWC1B  POINT 562216.490 2953461.530 4.000
   LOCATION FPLWC1C  POINT 562215.370 2953416.640 4.000
   LOCATION FPLWC2A  POINT 562210.050 2953149.570 4.000
   LOCATION FPLWC2B  POINT 562208.630 2953056.360 4.000
   LOCATION FPLWC2C  POINT 562207.660 2953010.730 4.000
   LOCATION FULHEAT1 POINT 562195.690 2953700.000 4.000
   LOCATION FULHEAT2 POINT 562195.690 2953317.000 4.000
*******************************************************************
**      FPL West County Energy Center (WCEC) Units 1 and 2
   SRCPARAM FPLWC1A  1.97   45.4   357.5    16.67  6.71
   SRCPARAM FPLWC1B  1.97   45.4   357.5    16.67  6.71
   SRCPARAM FPLWC1C  1.97   45.4   357.5    16.67  6.71
   SRCPARAM FPLWC2A  1.97   45.4   357.5    16.67  6.71
   SRCPARAM FPLWC2B  1.97   45.4   357.5    16.67  6.71
   SRCPARAM FPLWC2C  1.97   45.4   357.5    16.67  6.71
   SRCPARAM FULHEAT1 0.0068 9.14   533.2 16.15 0.305
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   SRCPARAM FULHEAT2 0.0068 9.14  533.2 16.15 0.305

** BUILDING DOWNWASH FOR UNITS 1 AND 2
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID FPLWC1A     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1A     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC1A     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID FPLWC1A     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1A     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC1A     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN FPLWC1A     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1A     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC1A     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN FPLWC1A     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1A     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC1A     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    FPLWC1A    -13.31   -21.39   -28.82   -35.38   -40.86   -45.10
SO XBADJ    FPLWC1A    -47.98   -49.39   -49.30   -49.29   -47.95   -45.16
SO XBADJ    FPLWC1A    -41.00   -35.59   -29.10   -21.72   -13.69    -5.24
SO XBADJ    FPLWC1A     -3.26    -1.91    -0.51     0.90     2.29     3.61
SO XBADJ    FPLWC1A      4.82     5.88     6.76     5.87     4.62     3.23
SO XBADJ    FPLWC1A      1.74     0.20    -1.34    -2.85    -4.27   -99.58
SO YBADJ    FPLWC1A     27.58    26.29    24.20    21.37    17.90    13.88
SO YBADJ    FPLWC1A      9.44     4.71    -0.16    -5.03    -9.74   -14.15
SO YBADJ    FPLWC1A    -18.14   -21.58   -24.36   -26.40   -27.63   -28.03
SO YBADJ    FPLWC1A    -27.58   -26.29   -24.20   -21.37   -17.90   -13.88
SO YBADJ    FPLWC1A     -9.44    -4.71     0.16     5.03     9.74    14.15
SO YBADJ    FPLWC1A     18.14    21.58    24.36    26.40    27.63    29.79


SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID FPLWC1B     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1B     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC1B     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID FPLWC1B     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1B     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC1B     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN FPLWC1B     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1B     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC1B     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN FPLWC1B     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1B     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC1B     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    FPLWC1B    -13.18   -21.42   -29.00   -35.71   -41.33   -45.70
SO XBADJ    FPLWC1B    -48.67   -50.17   -50.14   -50.17   -48.84   -46.03
SO XBADJ    FPLWC1B    -41.83   -36.35   -29.76   -22.28   -14.11    -5.52
SO XBADJ    FPLWC1B     -3.38    -1.89    -0.33     1.23     2.76     4.20
SO XBADJ    FPLWC1B      5.52     6.66     7.61     6.75     5.51     4.10
SO XBADJ    FPLWC1B      2.57     0.96    -0.68    -2.30    -3.85    -5.28
SO YBADJ    FPLWC1B     28.46    27.18    25.07    22.20    18.65    14.54
SO YBADJ    FPLWC1B      9.99     5.13     0.12    -4.90    -9.77   -14.34
SO YBADJ    FPLWC1B    -18.47   -22.04   -24.95   -27.09   -28.42   -28.88
SO YBADJ    FPLWC1B    -28.46   -27.18   -25.07   -22.20   -18.65   -14.54
SO YBADJ    FPLWC1B     -9.99    -5.13    -0.12     4.90     9.77    14.34
SO YBADJ    FPLWC1B     18.47    22.04    24.95    27.09    28.42    28.88


SO BUILDHGT FPLWC1C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1C     31.39    31.39    26.82    31.39    31.39    31.39
SO BUILDHGT FPLWC1C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID FPLWC1C     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1C     24.57    17.96    15.85    16.56    23.30    29.34
SO BUILDWID FPLWC1C     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID FPLWC1C     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1C     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC1C     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN FPLWC1C     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1C     43.16    43.51    22.55    43.42    43.33    41.93
SO BUILDLEN FPLWC1C     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN FPLWC1C     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1C     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC1C     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    FPLWC1C     31.22   -22.09   -29.42   -35.85   -41.20   -45.29
SO XBADJ    FPLWC1C    -48.01   -49.26  -119.00   -48.87   -47.41   -67.51
SO XBADJ    FPLWC1C    -69.82   -34.76   -68.08   -64.07   -58.12   -50.41
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SO XBADJ    FPLWC1C    -47.79    -1.21     0.08     1.38     2.63     3.80
SO XBADJ    FPLWC1C      4.85     5.76     6.49     5.45     4.07    25.58
SO XBADJ    FPLWC1C     30.57    34.63    37.64    -3.74    40.17    39.61
SO YBADJ    FPLWC1C     35.15    25.74    23.53    20.61    17.07    13.00
SO YBADJ    FPLWC1C      8.55     3.83   -11.18    -5.81   -10.44    25.10
SO YBADJ    FPLWC1C     16.64   -21.91    -1.53   -10.69   -19.52   -27.76
SO YBADJ    FPLWC1C    -35.15   -25.74   -23.53   -20.61   -17.07   -13.00
SO YBADJ    FPLWC1C     -8.55    -3.83     1.01     5.81    10.44   -25.10
SO YBADJ    FPLWC1C    -16.64    -7.67     1.53    26.43    19.52    27.76

SO BUILDHGT FPLWC2A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID FPLWC2A     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC2A     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC2A     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID FPLWC2A     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC2A     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC2A     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN FPLWC2A     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC2A     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC2A     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN FPLWC2A     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC2A     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC2A     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    FPLWC2A   -105.09  -109.15   -27.86   -34.28   -39.67   -43.85
SO XBADJ    FPLWC2A    -46.70   -48.13   -48.09   -48.17   -46.96   -44.33
SO XBADJ    FPLWC2A    -40.34   -35.14   -28.86   -21.71   -13.89    -5.66
SO XBADJ    FPLWC2A     -3.88    -2.72    -1.48    -0.20     1.10     2.35
SO XBADJ    FPLWC2A      3.54     4.62     5.56     4.75     3.63     2.40
SO XBADJ    FPLWC2A      1.09    -0.25    -1.58    -2.87    -4.06    -5.14
SO YBADJ    FPLWC2A     12.40    -4.60    23.36    20.72    17.44    13.64
SO YBADJ    FPLWC2A      9.42     4.92     0.26    -4.40    -8.93   -13.19
SO YBADJ    FPLWC2A    -17.04   -20.38   -23.10   -25.12   -26.37   -26.83
SO YBADJ    FPLWC2A    -26.46   -25.30   -23.36   -20.72   -17.44   -13.64
SO YBADJ    FPLWC2A     -9.42    -4.92    -0.26     4.40     8.93    13.19
SO YBADJ    FPLWC2A     17.04    20.38    23.10    25.12    26.37    26.83

SO BUILDHGT FPLWC2B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID FPLWC2B     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC2B     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC2B     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID FPLWC2B     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC2B     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC2B     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN FPLWC2B     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC2B     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC2B     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN FPLWC2B     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC2B     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC2B     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    FPLWC2B    -13.05   -21.07   -28.45   -34.96   -40.42   -44.64
SO XBADJ    FPLWC2B    -47.51   -48.93   -48.87   -48.89   -47.61   -44.88
SO XBADJ    FPLWC2B    -40.78   -35.45  -108.87  -108.81    31.48   -98.87
SO XBADJ    FPLWC2B     -3.51    -2.23    -0.89     0.48     1.84     3.14
SO XBADJ    FPLWC2B      4.35     5.42     6.33     5.48     4.28     2.95
SO XBADJ    FPLWC2B      1.53     0.07    -1.40    -2.83    -4.16    -5.38
SO YBADJ    FPLWC2B     27.19    25.94    23.91    21.16    17.76    13.82
SO YBADJ    FPLWC2B      9.46     4.81     0.02    -4.77    -9.42   -13.78
SO YBADJ    FPLWC2B    -17.72   -21.13    24.73     8.10   -35.61   -25.41
SO YBADJ    FPLWC2B    -27.19   -25.94   -23.91   -21.16   -17.76   -13.82
SO YBADJ    FPLWC2B     -9.46    -4.81    -0.02     4.77     9.42    13.78
SO YBADJ    FPLWC2B     17.72    21.13    23.89    25.93    27.18    27.60

SO BUILDHGT FPLWC2C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID FPLWC2C     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC2C     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC2C     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID FPLWC2C     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC2C     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC2C     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN FPLWC2C     16.56    23.30    29.34    34.48    38.57    41.50
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SO BUILDLEN FPLWC2C      43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC2C      39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN FPLWC2C      16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC2C      43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC2C      39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    FPLWC2C      32.05   -21.28   -28.55   -34.94   -40.28   -44.39
SO XBADJ    FPLWC2C     -47.15   -48.48   -48.34   -48.30   -46.97   -44.21
SO XBADJ    FPLWC2C     -40.11   -34.79   -68.07   -21.17   -13.29  -144.50
SO XBADJ    FPLWC2C     -48.62    -2.02    -0.79     0.46     1.70     2.89
SO XBADJ    FPLWC2C       3.99     4.97     5.80     4.88     3.63     2.28
SO XBADJ    FPLWC2C       0.85    -0.60    -2.03    -3.40    40.60    40.25
SO YBADJ    FPLWC2C      34.15    25.30    23.24    20.48    17.09    13.19
SO YBADJ    FPLWC2C       8.88     4.31    -0.40    -5.09    -9.63   -13.88
SO YBADJ    FPLWC2C     -17.70   -20.99    -0.24   -25.57   -26.73   -24.44
SO YBADJ    FPLWC2C     -34.15   -25.30   -23.24   -20.48   -17.09   -13.19
SO YBADJ    FPLWC2C      -8.88    -4.31     0.40     5.09     9.63    13.88
SO YBADJ    FPLWC2C      17.70    20.99    23.64    25.57    18.30    26.63

SO BUILDHGT FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT2     26.82    26.82     0.00    31.39    31.39    31.39
SO BUILDHGT FULHEAT2     31.39     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT2     26.64    27.47     0.00    43.16    43.51    42.54
SO BUILDWID FULHEAT2     43.42     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT2     27.47    26.64     0.00    24.57    17.96    10.80
SO BUILDLEN FULHEAT2     16.56     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT2   -138.04  -137.67     0.00  -107.73  -152.83  -150.05
SO XBADJ    FULHEAT2   -149.33     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT2     11.17   -10.58     0.00    26.14    17.16    -8.08
SO YBADJ    FULHEAT2    -33.07     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT2      0.00     0.00     0.00     0.00     0.00     0.00


SO BUILDHGT FULHEAT1     31.39     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT FULHEAT1      0.00     0.00     0.00     0.00    31.39    31.39
SO BUILDWID FULHEAT1     43.42     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID FULHEAT1      0.00     0.00     0.00     0.00    43.51    42.54
SO BUILDLEN FULHEAT1     16.56     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDLEN FULHEAT1      0.00     0.00     0.00     0.00    17.96    10.80
SO XBADJ    FULHEAT1   -151.52     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO XBADJ    FULHEAT1      0.00     0.00     0.00     0.00  -150.02  -149.73
SO YBADJ    FULHEAT1    -18.84     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT1      0.00     0.00     0.00     0.00     0.00     0.00
SO YBADJ    FULHEAT1      0.00     0.00     0.00     0.00    31.29     6.32

** OTHER BACKGROUND SOURCES
**       Hubbard Construction Company
SO LOCATION     HUBB23   POINT    562626.880 2951930.240          4.0

**       SFWMD - Pump Station S-5A
SO LOCATION     PS_S5A   POINT    562860.0        2951370.0       4.0
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**      Atlantic Sugar
** DID NOT OPERATE IN 2006

SO LOCATION     ATLSUG1B POINT    552900.0         2945200.0        1.5
SO LOCATION     ATLSUG2B POINT    552900.0         2945200.0        1.5
SO LOCATION     ATLSUG3B POINT    552900.0         2945200.0        1.5
SO LOCATION     ATLSUG4B POINT    552900.0         2945200.0        1.5

**      Osceola Farms
SO LOCATION     OSBLR5B  POINT    544200.0         2968000.0        1.5

SO LOCATION     OSBLR1B  POINT    544200.0         2968000.0        1.5
SO LOCATION     OSBLR2B  POINT    544200.0         2968000.0        1.5
SO LOCATION     OSBLR3B  POINT    544200.0         2968000.0        1.5
SO LOCATION     OSBLR4B  POINT    544200.0         2968000.0        1.5

**      Solid Waste Authority of PBC
SO LOCATION     PBCRRF   POINT    584490.0         2961260.0        1.5

**      United Technologies Corporation
SO LOCATION     PRATARCH POINT    568410.0         2975840.0        1.5
SO LOCATION     PRATBO12 POINT    568410.0         2975840.0        1.5

**      Sugar Cane Growers Co-Op
SO LOCATION     SCBLR1N  POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR2N  POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR3N  POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR4N  POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR5N  POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR8N  POINT    534900.0         2953300.0        1.5

SO LOCATION     SCBLR1F  POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR4F  POINT    534900.0         2953300.0        1.5

SO LOCATION     BLR123BN POINT    534900.0         2953300.0        1.5

SO LOCATION     SCBLR4BN POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR5BN POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR6BN POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR7BN POINT    534900.0         2953300.0        1.5

SO LOCATION     BLR123BF POINT    534900.0         2953300.0        1.5

SO LOCATION     SCBLR4BF POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR5BF POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR6BF POINT    534900.0         2953300.0        1.5
SO LOCATION     SCBLR7BF POINT    534900.0         2953300.0        1.5


**      U.S. Sugar Corp. Bryant Mill
** NO OPERATING PERMIT

SO LOCATION     USSBRY1B POINT    537830.0         2969120.0        1.5
SO LOCATION     USBRY23B POINT    537830.0         2969120.0        1.5

**      City of Lake Worth Utilities
SO LOCATION     LAKWTHDG POINT    592800.0         2943700.0        7.6
SO LOCATION     LAKWTHHR POINT    592800.0         2943700.0        7.6
SO LOCATION     LAKWTHH1 POINT    592800.0         2943700.0        7.6
SO LOCATION     LAKWTHU5 POINT    592800.0         2943700.0        7.6

**      FPL -Riviera Beach
SO LOCATION     RIVU34B  POINT    593270.0         2960620.0        3.0
SO LOCATION     RIVU34   POINT    593270.0         2960620.0        3.0
SO LOCATION     RIVU1    POINT    593270.0         2960620.0        3.0
SO LOCATION     RIVU2    POINT    593270.0         2960620.0        3.0

**      New Hope Power Partnership (Okeelanta)
SO LOCATION     OKCOGENF POINT    524920.0         2939440.0        1.5

**      Okeelanta
SO LOCATION     OKBLRB   POINT    524700.0         2939500.0        1.5
SO LOCATION     OKBLR16  POINT    524700.0         2939500.0        1.5

**      Indiantown Cogeneration LP - Indiantown Plant
SO LOCATION     INDTOWN1 POINT    547650.0         2990700.0        9.1

**      FPL - Martin Power Plant
SO LOCATION     MART12B  POINT    542680.0         2992650.0        7.6
SO LOCATION     MART12   POINT    542680.0         2992650.0        7.6
SO LOCATION     MART34   POINT    542680.0         2992650.0        7.6
SO LOCATION     MARTAUX  POINT    542680.0         2992650.0        7.6
SO LOCATION     MARTGEN  POINT    542680.0         2992650.0        7.6
SO LOCATION     MART8OIL POINT    542680.0         2992650.0        7.6

**      U.S. Sugar Clewiston Mill and Refinery
SO LOCATION     USSBLR1N POINT    506100.0         2956900.0        6.1
SO LOCATION     USSBLR2N POINT    506100.0         2956900.0        6.1
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SO LOCATION      USSBLR4N POINT   506100.0         2956900.0        6.1
SO LOCATION      USSBLR7N POINT   506100.0         2956900.0        6.1
SO LOCATION      USSBLR8N POINT   506100.0         2956900.0        6.1

SO LOCATION      USSBLR7F POINT   506100.0         2956900.0        6.1
SO LOCATION      USSBLR8F POINT   506100.0         2956900.0        6.1

SO LOCATION      USSBLR1B POINT   506100.0         2956900.0        6.1
SO LOCATION      USSBLR2B POINT   506100.0         2956900.0        6.1
SO LOCATION      USSBLR3B POINT   506100.0         2956900.0        6.1
SO LOCATION      EPELLET  POINT   506100.0         2956900.0        6.1
SO LOCATION      WPELLET  POINT   506100.0         2956900.0        6.1

SO LOCATION      S12      POINT   506100.0         2956900.0        6.1

**        Florida Power & Light (PFL) - Fort Lauderdale
SO LOCATION      LAUDU45  POINT   579390.0         2883360.0        1.5
SO LOCATION      FTLAU45B POINT   579390.0         2883360.0        1.5

**        FPL - Port Everglades Plant
SO LOCATION      PTEVU12B POINT   587400.0         2885300.0        1.5
SO LOCATION      PTEVU12  POINT   557310.0         2880600.0        1.5
SO LOCATION      PTEVU34B POINT   587400.0         2885300.0        1.5
SO LOCATION      PTEVU34  POINT   557310.0         2880600.0        1.5

**        Ft. Pierce Utilities Authority
SO LOCATION      FPUA9    POINT   566120.0         3036350.0        3.0

**        Rinker Materials Corporation
SO LOCATION      RMC14    POINT   557490.0         2852050.0        1.5
SO LOCATION      RMC18    POINT   557490.0         2852050.0        1.5

**        City of Vero Beach Municipal Utilities
SO LOCATION      VERBU4   POINT   561400.0         3056500.0        1.5
SO LOCATION      VERBU5   POINT   561400.0         3056500.0        1.5
*********************************************************************

**        Hubbard Construction Company
SO SRCPARAM      HUBB23   3.08    9.14     394     30.54    1.16

**        SFWMD - Pump Station S-5A (0.9 LB/HR)
SO SRCPARAM      PS_S5A   0.113   4.88     686     5.30     0.99

**        Atlantic Sugar
** DID NOT OPERATE IN 2006

SO SRCPARAM      ATLSUG1B -17.24  18.90    506     12.70    1.92
SO SRCPARAM      ATLSUG2B -22.50  18.90    511     10.90    1.92
SO SRCPARAM      ATLSUG3B -16.88  21.90    522     17.50    1.83
SO SRCPARAM      ATLSUG4B -16.88  18.30    344     15.00    1.83

**        Osceola Farms
SO SRCPARAM      OSBLR5B  147.28  27.43    339     14.23    1.52

SO SRCPARAM      OSBLR1B  -5.07   22.00    342      8.98    1.52
SO SRCPARAM      OSBLR2B  -16.32  22.00    342     14.22    1.52
SO SRCPARAM      OSBLR3B  -7.26   22.00    342     11.23    1.98
SO SRCPARAM      OSBLR4B  -13.61  22.00    342     13.35    1.83

**        Solid Waste Authority of PBC
SO SRCPARAM      PBCRRF   11.55   76.20    505     24.90    2.04

**        United Technologies Corporation
SO SRCPARAM      PRATARCH 13.99   15.24    811     143.73   0.91
SO SRCPARAM      PRATBO12 0.27    4.57     533     6.92     0.76

**        Sugar Cane Growers Co-Op
SO SRCPARAM      SCBLR1N  75.49   45.72    342     15.12    2.13
SO SRCPARAM      SCBLR2N  75.46   45.72    342     15.58    2.13
SO SRCPARAM      SCBLR3N  0.00    54.86    342     12.28    1.62
SO SRCPARAM      SCBLR4N  0.00    54.86    345     16.49    2.72
SO SRCPARAM      SCBLR5N  0.00    45.72    344     23.50    2.13
SO SRCPARAM      SCBLR8N  0.00    47.24    341     11.46    2.90

SO SRCPARAM      SCBLR1F  75.49   45.72    342     15.12    2.13
SO SRCPARAM      SCBLR4F  71.51   54.86    345     16.49    2.72

SO SRCPARAM      BLR123BN -81.90  24.10    475     15.94    1.68

SO SRCPARAM      SCBLR4BN -25.91  26.20    338     9.88     1.62
SO SRCPARAM      SCBLR5BN -39.69  24.10    528     28.42    2.03
SO SRCPARAM      SCBLR6BN -18.61  12.20    605     6.53     1.52
SO SRCPARAM      SCBLR7BN -44.58  12.20    606     17.20    1.52

SO SRCPARAM      BLR123BF -51.91  24.10    475     15.94    1.68

SO SRCPARAM      SCBLR4BF -25.91  26.20    338     9.88     1.62
SO SRCPARAM      SCBLR5BF 0.00    24.10    528     28.42    2.03
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SO SRCPARAM     SCBLR6BF 0.00     12.20   605     6.53    1.52
SO SRCPARAM     SCBLR7BF -15.35   12.20   606     17.20   1.52

**      U.S. Sugar Corp. Bryant Mill
** NO OPERATING PERMIT
**
** BASELINE BASED ON ANNUAL FUEL USAGE 1976/77- 766,813 GALLONS
** 2.25%S, 150 DAYS (3000 HOURS); AP-42 FACTOR LB/1000 = 157 X S%
** 75.2 LB/HR

** SO SRCPARAM      USSBRY1B -36.50  19.81    494      44.30    1.68
** SO SRCPARAM      USBRY23B -73.00  19.81    344      37.90    1.68
SO SRCPARAM     USSBRY1B  -3.16   19.81   494     44.30   1.68
SO SRCPARAM     USBRY23B  -6.32   19.81   344     37.90   1.68

**      City of Lake Worth Utilities
SO SRCPARAM     LAKWTHDG 4.78     5.18    626     37.09   0.56
SO SRCPARAM     LAKWTHHR 19.78    14.02   720     24.84   4.88
SO SRCPARAM     LAKWTHH1 -33.64   18.29   428     10.52   1.52
SO SRCPARAM     LAKWTHU5 13.73    22.86   480     27.80   3.05

**      FPL -Riviera Beach
SO SRCPARAM     RIVU34B  -548.86 90.83    401     26.85   4.88
SO SRCPARAM     RIVU34   642.35  90.83    401     26.85   4.88
SO SRCPARAM     RIVU1    -20.16  45.72    427     7.56    3.29
SO SRCPARAM     RIVU2    -37.55  45.72    430     6.31    4.57

**      New Hope Power Partnership (Okeelanta)
SO SRCPARAM     OKCOGENF 57.46    60.66   451     20.63   3.05

**      Okeelanta
SO SRCPARAM     OKBLRB   -76.17   22.86   333     7.36    2.29

SO SRCPARAM     OKBLR16  1.52     22.86   474     30.69   1.52

**      Indiantown Cogeneration LP - Indiantown Plant
SO SRCPARAM     INDTOWN1 73.33    150.88  333     28.41   4.88

**      FPL - Martin Power Plant
SO SRCPARAM     MART12B -1743.84 152.10   443     20.94   7.99
SO SRCPARAM     MART12    1110.94 152.10  443     20.94   7.99
SO SRCPARAM     MART34    0.50    64.92   411     18.90   6.10
SO SRCPARAM     MARTAUX   12.90   18.29   535     15.24   1.10
SO SRCPARAM     MARTGEN   0.51    7.62    786     39.62   0.30
SO SRCPARAM     MART8OIL 2.02     36.58   420     22.40   5.79

**      U.S. Sugar Clewiston Mill and Refinery
SO SRCPARAM     USSBLR1N 3.75     64.92   339     25.27   2.44
SO SRCPARAM     USSBLR2N 3.38     64.92   339     25.27   2.44
SO SRCPARAM     USSBLR4N 4.54     45.72   344     27.04   2.50
SO SRCPARAM     USSBLR7N 15.81    68.58   441     28.80   2.44
SO SRCPARAM     USSBLR8N 8.14     60.66   430     23.07   3.32

SO SRCPARAM     USSBLR7F 15.81    68.58   441     28.80   2.44
SO SRCPARAM     USSBLR8F 8.14     60.66   430     23.07   3.32

** 1974 PERMIT APPLICATION- ACTUAL
** BLR NO. 1- 38.1 LB/HR; USE FOR BLR NO. 2
** BLR NO. 3- 21.7 LB/HR- PRO-RATED FROM BLR NO. 1 BASED ON HIR
** PELLET MILLS- 78 LB/HR
**
SO SRCPARAM     USSBLR1B -4.80    23.10   344     30.18   1.86
SO SRCPARAM     USSBLR2B -4.80    23.10   343     35.66   1.86
SO SRCPARAM     USSBLR3B -2.73    27.43   342     14.69   2.29
SO SRCPARAM     EPELLET  -9.83    12.19   347     8.53    1.52
SO SRCPARAM     WPELLET  -9.83    15.70   347     8.53    1.52

SO SRCPARAM     S12      0.08     9.14    344     6.95    0.61

**      Florida Power & Light (PFL) - Fort Lauderdale
SO SRCPARAM     LAUDU45  50.22    45.72   439     48.37   5.49
SO SRCPARAM     FTLAU45B -209.54 45.72    422     14.63   4.27

**      FPL - Port Everglades Plant
SO SRCPARAM     PTEVU12B -637.56 104.50   416     26.72   4.27
SO SRCPARAM     PTEVU12  513.19  104.50   416     26.72   4.27
SO SRCPARAM     PTEVU34B -1108.8 104.50   415     23.88   5.52
SO SRCPARAM     PTEVU34  868.87  104.50   415     23.88   5.52

**      Ft. Pierce Utilities Authority
SO SRCPARAM     FPUA9    40.19    20.73   492     18.23   3.41

**      Rinker Materials Corporation
SO SRCPARAM     RMC14    3.80     24.38   700     11.58   1.37
SO SRCPARAM     RMC18    38.56    109.42  513     49.04   2.44

**      City of Vero Beach Municipal Utilities
SO SRCPARAM     VERBU4   69.05    60.96   413     23.68   2.13
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SO SRCPARAM      VERBU5    15.66    38.10    483      25.02    3.35
***************************************************************

**       Atlantic Sugar
SO EMISFACT ATLSUG1B-ATLSUG4B  MONTH 1 1 1 1 0 0 0 0 0 1 1 1

**       Osceola Farms
SO EMISFACT OSBLR5B            MONTH 1 1 1 1 0 0 0 0 0 1 1 1
SO EMISFACT OSBLR1B-OSBLR4B    MONTH 1 1 1 1 0 0 0 0 0 1 1 1

**       Sugar Cane Growers Co-Op
SO EMISFACT SCBLR1N-SCBLR8N    MONTH 1 1 1 1 0 0 0 0 0 1 1 1
SO EMISFACT SCBLR1F-SCBLR4F    MONTH 0 0 0 0 1 1 1 1 1 0 0 0
SO EMISFACT BLR123BN           MONTH 1 1 1 1 0 0 0 0 0 1 1 1
SO EMISFACT SCBLR4BN-SCBLR7BN  MONTH 1 1 1 1 0 0 0 0 0 1 1 1
SO EMISFACT BLR123BF           MONTH 0 0 0 0 1 1 1 1 1 0 0 0
SO EMISFACT SCBLR4BF-SCBLR7BF  MONTH 0 0 0 0 1 1 1 1 1 0 0 0

**       U.S. Sugar Corp. Bryant Mill
** SO EMISFACT USSBRY1B            MONTH 1 1 1 1 0 0 0 0 0 1 1 1
** SO EMISFACT USBRY23B            MONTH 1 1 1 1 0 0 0 0 0 1 1 1
SO EMISFACT USSBRY1B           MONTH 1 1 1 0 0 0 0 0 0 0 1 1
SO EMISFACT USBRY23B           MONTH 1 1 1 0 0 0 0 0 0 0 1 1

**       Okeelanta
SO EMISFACT OKBLRB             MONTH 1 1 1 1 0 0 0 0 0 1 1 1

**       U.S. Sugar Clewiston Mill and Refinery
SO EMISFACT USSBLR1N-USSBLR8N  MONTH 1 1 1 1 0 0 0 0 0 1 1 1
SO EMISFACT USSBLR7F-USSBLR8F  MONTH 0 0 0 0 1 1 1 1 1 0 0 0
** SO EMISFACT USSBLR1B-USSBLR3B  MONTH 1 1 1 1 0 0 0 0 0 1 1 1
** SO EMISFACT EPELLET            MONTH 1 1 1 1 0 0 0 0 0 1 1 1
** SO EMISFACT WPELLET            MONTH 1 1 1 1 0 0 0 0 0 1 1 1
SO EMISFACT USSBLR1B-USSBLR3B  MONTH 1 1 1 0 0 0 0 0 0 0 1 1
SO EMISFACT EPELLET            MONTH 1 1 1 0 0 0 0 0 0 0 1 1
SO EMISFACT WPELLET            MONTH 1 1 1 0 0 0 0 0 0 0 1 1

   SRCGROUP ALL
SO FINISHED
**
****************************************
** ISCST3 Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED WC31000X.ROU
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
**    SURFFILE C:\amodmet\PBIMIA01.SFC
**    PROFFILE C:\amodmet\PBIMIA01.PFL
   SURFFILE PBIMIA01.SFC
   PROFFILE PBIMIA01.PFL
   SURFDATA 12844 2001 WEST_PALM_BEACH/INT'L_ARPT
   UAIRDATA 92803 2001 MIAMI/FIU
   PROFBASE 19 FEET
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE FIRST SECOND
OU FINISHED
**
```

S:\Projects\FPL\West County Unit3 Aug07\report\MODEL FILES APPENDIX\AppenF\TEXTFILES AERMOD\SO2CL2.SUM

AERBOB RELEASE 020304

AERMOD OUTPUT FILE NUMBER 1 :SO2CL2.001
AERMOD OUTPUT FILE NUMBER 2 :SO2CL2.002
AERMOD OUTPUT FILE NUMBER 3 :SO2CL2.003
AERMOD OUTPUT FILE NUMBER 4 :SO2CL2.004
AERMOD OUTPUT FILE NUMBER 5 :SO2CL2.005
First title for last output file is: 2001 FPL WEST COUNTY UNIT 3 - 24-HOUR SO2 PSD CL2 ANALYSIS 11/16/07
Second title for last output file is: CT/HRSGs ON GAS WITH DB, WITH HUBBARD CONSTRUCTION

AVERAGING TIME	YEAR	CONC (ug/m3)	X (m)	Y (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	ALL				
HIGH 24-Hour					
	2001	34.08709	562278.	2951988.	01112824
	2002	26.25723	562274.	2952063.	02013024
	2003	27.94686	562278.	2951938.	03111624
	2004	30.20820	562278.	2951988.	04091324
	2005	27.71614	562278.	2951938.	05111324
HSH 24-Hour					
	2001	28.56226	562278.	2951987.	01101224
	2002	23.08006	562278.	2951988.	02051224
	2003	24.59453	562278.	2951987.	03102524
	2004	25.39940	562278.	2951988.	04051324
	2005	26.56184	562278.	2951938.	05010124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

AERBOB RELEASE 020304

AERMOD OUTPUT FILE NUMBER 1 :SO2CL2X.001
AERMOD OUTPUT FILE NUMBER 2 :SO2CL2X.002
AERMOD OUTPUT FILE NUMBER 3 :SO2CL2X.003
AERMOD OUTPUT FILE NUMBER 4 :SO2CL2X.004
AERMOD OUTPUT FILE NUMBER 5 :SO2CL2X.005
First title for last output file is: 2001 FPL WEST COUNTY UNIT 3 - 24-HOUR SO2 PSD CL2 ANALYSIS 11/16/07
Second title for last output file is: CT/HRSGs ON GAS WITH DB, WITHOUT HUBBARD CONSTRUCTION

AVERAGING TIME	YEAR	CONC (ug/m3)	X (m)	Y (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: ALL					
HIGH 24-Hour					
	2001	12.69042	561977.	2951856.	01042624
	2002	13.28003	561150.	2952900.	02101324
	2003	9.69864	561150.	2951700.	03112224
	2004	11.23942	563150.	2953700.	04102524
	2005	12.43303	561750.	2952800.	05031924
HSH 24-Hour					
	2001	8.49398	562350.	2952100.	01020524
	2002	11.53876	561750.	2953000.	02103124
	2003	8.44849	561150.	2952300.	03011324
	2004	10.13401	562348.	2953929.	04090524
	2005	7.56182	561978.	2953590.	05031924

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

AERMOD

PSD CLASS II INCREMENT ANALYSIS

24-HOUR PM_{10} CONCENTRATIONS

```
CO STARTING
   TITLEONE 2001 FPL WEST COUNTY UNIT 3 - 24-HR PM10 PSD CL2 ANALYS 11/16/07
   TITLETWO PM10 IMPACTS, CT/HRSGs ON OIL, INCLUDES PBA & HUBBARD CONST
   MODELOPT DFAULT CONC NOWARN
   AVERTIME PERIOD 24
   POLLUTID PM.10
   RUNORNOT RUN
CO FINISHED
**
****************************************
** ISCST3 Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** FPL WEST COUNTY UNIT 3 SOURCES
   LOCATION 03A7595 POINT 562202.790 2952748.590 4.000
   LOCATION 03B7595 POINT 562201.600 2952654.460 4.000
   LOCATION 03C7595 POINT 562200.640 2952609.610 4.000
   LOCATION FULHEAT3   POINT  562195.690 2952917.930 4.000

   LOCATION COOL3_01   POINT  562250.100 2952798.640 4.000
   LOCATION COOL3_02   POINT  562250.290 2952780.090 4.000
   LOCATION COOL3_03   POINT  562249.930 2952764.770 4.000
   LOCATION COOL3_04   POINT  562249.650 2952746.510 4.000
   LOCATION COOL3_05   POINT  562248.890 2952730.590 4.000
   LOCATION COOL3_06   POINT  562249.100 2952713.490 4.000
   LOCATION COOL3_07   POINT  562248.330 2952698.830 4.000
   LOCATION COOL3_08   POINT  562247.560 2952681.350 4.000
   LOCATION COOL3_09   POINT  562247.780 2952665.220 4.000
   LOCATION COOL3_10   POINT  562247.500 2952649.290 4.000
   LOCATION COOL3_11   POINT  562247.220 2952633.360 4.000
   LOCATION COOL3_12   POINT  562245.830 2952616.600 4.000
   LOCATION COOL3_13   POINT  562245.530 2952598.970 4.000
   LOCATION COOL3_14   POINT  562266.000 2952798.620 4.000
   LOCATION COOL3_15   POINT  562265.720 2952780.450 4.000
   LOCATION COOL3_16   POINT  562264.970 2952764.670 4.000
   LOCATION COOL3_17   POINT  562264.200 2952746.770 4.000
   LOCATION COOL3_18   POINT  562263.440 2952730.710 4.000
   LOCATION COOL3_19   POINT  562262.670 2952713.490 4.000
   LOCATION COOL3_20   POINT  562262.890 2952697.350 4.000
   LOCATION COOL3_21   POINT  562262.610 2952681.390 4.000
   LOCATION COOL3_22   POINT  562262.330 2952665.430 4.000
   LOCATION COOL3_23   POINT  562261.360 2952647.630 4.000
   LOCATION COOL3_24   POINT  562262.330 2952633.060 4.000
   LOCATION COOL3_25   POINT  562261.850 2952616.570 4.000
   LOCATION COOL3_26   POINT  562260.390 2952598.600 4.000
** Source Parameters **
** HRSGS ON OIL, 75% Load, 95 F
   SRCPARAM 03A7595  4.11    45.4  447.0 20.36 6.71
   SRCPARAM 03B7595  4.11    45.4  447.0 20.36 6.71
   SRCPARAM 03C7595  4.11    45.4  447.0 20.26 6.71
   SRCPARAM FULHEAT3 0.00252  9.14  533.2 16.15 0.305

   SRCPARAM COOL3_01 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_02 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_03 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_04 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_05 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_06 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_07 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_08 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_09 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_10 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_11 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_12 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_13 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_14 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_15 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_16 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_17 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_18 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_19 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_20 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_21 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_22 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_23 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_24 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_25 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL3_26 0.00565 19.202 309.2 7.17 10.668

** Building Downwash **
SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT 03A7595     31.39    31.39    31.39    31.39    31.39    31.39
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SO BUILDHGT O3A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3A7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID O3A7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID O3A7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID O3A7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID O3A7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID O3A7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID O3A7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN O3A7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN O3A7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN O3A7595     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN O3A7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN O3A7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN O3A7595     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    O3A7595   -105.97  -109.86  -110.42   -35.01   -40.32   -44.41
SO XBADJ    O3A7595    -47.15   -48.46   -48.29   -48.24   -46.89   -44.11
SO XBADJ    O3A7595    -40.00   -34.67   -28.29   -21.05   -13.17    -4.88
SO XBADJ    O3A7595     -3.08    -1.92    -0.71     0.53     1.75     2.92
SO XBADJ    O3A7595      3.99     4.95     5.76     4.82     3.55     2.18
SO XBADJ    O3A7595      0.74    -0.72    -2.15    -3.53    -4.79  -145.00
SO YBADJ    O3A7595     11.56    -5.58   -22.55    20.37    16.98    13.07
SO YBADJ    O3A7595      8.76     4.19    -0.51    -5.20    -9.73   -13.96
SO YBADJ    O3A7595    -17.77   -21.03   -23.66   -25.57   -26.71   -27.03
SO YBADJ    O3A7595    -26.53   -25.22   -23.15   -20.37   -16.98   -13.07
SO YBADJ    O3A7595     -8.76    -4.19     0.51     5.20     9.73    13.96
SO YBADJ    O3A7595     17.77    21.03    23.66    25.57    26.71    29.22

SO BUILDHGT O3B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3B7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID O3B7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID O3B7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID O3B7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID O3B7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID O3B7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID O3B7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN O3B7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN O3B7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN O3B7595     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN O3B7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN O3B7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN O3B7595     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    O3B7595    -13.06   -21.00   -28.30   -34.75   -40.13   -67.76
SO XBADJ    O3B7595    -47.12   -48.51   -48.42   -48.44   -47.16   -44.45
SO XBADJ    O3B7595    -40.38   -35.09  -109.21  -109.09  -105.66    40.08
SO XBADJ    O3B7595     -3.50    -2.30    -1.03     0.27     1.56    26.26
SO XBADJ    O3B7595      3.96     5.00     5.89     5.02     3.83     2.52
SO XBADJ    O3B7595      1.13    -0.29    -1.70    -3.06   -48.90   -50.87
SO YBADJ    O3B7595     26.73    25.49    23.48    20.76    17.40   -25.37
SO YBADJ    O3B7595      9.22     4.65    -0.07    -4.78    -9.35   -13.64
SO YBADJ    O3B7595    -17.51   -20.84    24.43     7.74    -9.19   -28.03
SO YBADJ    O3B7595    -26.73   -25.49   -23.48   -20.76   -17.40    25.37
SO YBADJ    O3B7595     -9.22    -4.65     0.07     4.78     9.35    13.64
SO YBADJ    O3B7595     17.51    20.84    23.55    25.54    35.50    28.03

SO BUILDHGT O3C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT O3C7595     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID O3C7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID O3C7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID O3C7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID O3C7595     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID O3C7595     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID O3C7595     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN O3C7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN O3C7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN O3C7595     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN O3C7595     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN O3C7595     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN O3C7595     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    O3C7595     31.27   -21.50   -28.74   -35.12   -40.43   -44.50
SO XBADJ    O3C7595    -47.23   -48.52   -48.34   -48.26   -46.89   -66.04
SO XBADJ    O3C7595    -39.96   -34.62   -28.22   -20.96  -149.66    -4.77
SO XBADJ    O3C7595    -47.83    -1.81    -0.59     0.64     1.85     3.01
SO XBADJ    O3C7595      4.07     5.01     5.80     4.84     3.56    24.11
SO XBADJ    O3C7595      0.71    -0.77    -2.23    -3.61    -4.89    -6.02
SO YBADJ    O3C7595     33.57    25.23    23.13    20.34    16.92    12.99
SO YBADJ    O3C7595      8.67     4.09    -0.62    -5.32    -9.85    25.69
SO YBADJ    O3C7595    -17.88   -21.14   -23.76   -25.65    -0.45   -27.07
SO YBADJ    O3C7595    -33.57   -25.23   -23.13   -20.34   -16.92   -12.99
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SO YBADJ    03C7595    -8.67    -4.09     0.62     5.32     9.85   -25.69
SO YBADJ    03C7595    17.88    21.14    23.76    25.65    26.77    27.07

SO BUILDHGT COOL3_01   14.94    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT COOL3_01   31.39    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_01   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_01   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_01   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_01   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_01   62.37    43.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL3_01   24.57   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_01  184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDWID COOL3_01   62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL3_01  210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_01  184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_01  215.91    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN COOL3_01   43.16    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_01  157.40   180.68   198.48   210.24   215.62   214.45
SO BUILDLEN COOL3_01  215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL3_01  104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_01  157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_01 -207.86  -173.08  -177.42  -176.37  -108.73  -110.41
SO XBADJ    COOL3_01 -108.73   -47.36   -11.22    -8.22    -8.70    -8.91
SO XBADJ    COOL3_01   -8.85    -8.53    -7.95    -7.12    -6.08    -4.85
SO XBADJ    COOL3_01   -8.05   -11.52   -14.64   -17.32   -19.47   -21.02
SO XBADJ    COOL3_01  -21.94   -22.19   -21.77   -54.16   -88.63  -120.42
SO XBADJ    COOL3_01 -148.54  -172.15  -190.53  -203.13  -209.54  -209.60
SO YBADJ    COOL3_01  -22.97    21.76    -6.61   -34.77     9.05    -6.62
SO YBADJ    COOL3_01  -22.09  -101.73  -102.37   -99.90   -94.40   -86.02
SO YBADJ    COOL3_01  -75.03   -61.76   -46.62   -30.06   -12.58     5.27
SO YBADJ    COOL3_01   22.97    39.97    55.75    69.84    81.81    91.29
SO YBADJ    COOL3_01   98.00   101.73   102.37    99.90    94.40    86.02
SO YBADJ    COOL3_01   75.03    61.76    46.62    30.06    12.58    -5.27


SO BUILDHGT COOL3_02   14.94    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT COOL3_02   31.39    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_02   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_02   14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL3_02   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_02   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_02   62.37    43.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL3_02   24.57   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_02  184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDWID COOL3_02   62.37    97.33   129.33   157.40    35.39    30.44
SO BUILDWID COOL3_02  210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_02  184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_02  215.91    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN COOL3_02   43.16    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_02  157.40   180.68   198.48   210.24   215.62   214.45
SO BUILDLEN COOL3_02  215.91   211.84   201.33   184.70    38.57    41.50
SO BUILDLEN COOL3_02  104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_02  157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_02 -189.62  -155.71  -161.45  -162.28   -96.96  -101.30
SO XBADJ    COOL3_02 -102.56   -44.32   -11.41   -11.62   -15.22   -18.35
SO XBADJ    COOL3_02  -20.92   -22.86   -24.10   -24.62   -24.38   -23.40
SO XBADJ    COOL3_02  -26.29   -28.89   -30.61   -31.41    58.38    59.80
SO XBADJ    COOL3_02  -28.11   -25.23   -21.58   -50.75   -82.11  -110.98
SO XBADJ    COOL3_02 -136.47  -157.82  -174.37  -185.63  -191.24  -191.05
SO YBADJ    COOL3_02  -19.56    28.28     2.83   -22.70    23.38     9.54
SO YBADJ    COOL3_02   -4.59   -83.43   -83.82   -81.67   -77.03   -70.05
SO YBADJ    COOL3_02  -60.94   -49.99   -37.51   -23.89    -9.55     5.08
SO YBADJ    COOL3_02   19.56    33.45    46.31    57.77   -23.38    -9.54
SO YBADJ    COOL3_02   80.51    83.43    83.82    81.67    77.03    70.05
SO YBADJ    COOL3_02   60.94    49.99    37.51    23.89     9.55    -5.08


SO BUILDHGT COOL3_03   14.94    31.39    31.39    31.39    14.94    31.39
SO BUILDHGT COOL3_03   31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_03   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_03   14.94    14.94    14.94    14.94    14.94    31.39
SO BUILDHGT COOL3_03   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_03   14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_03   62.37    43.33    41.93    39.26   180.68    30.44
SO BUILDWID COOL3_03   24.57    17.96   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_03  184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDWID COOL3_03   62.37    97.33   129.33   157.40   180.68    30.44
SO BUILDWID COOL3_03  210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_03  184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_03  215.91    23.30    29.34    34.48   162.46    41.50
SO BUILDLEN COOL3_03   43.16    43.51    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_03  157.40   180.68   198.48   210.24   215.62   214.45
SO BUILDLEN COOL3_03  215.91   211.84   201.33   184.70   162.46    41.50
SO BUILDLEN COOL3_03  104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_03  157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_03 -174.47  -141.19  -148.00  -150.31  -121.09   -93.33
SO XBADJ    COOL3_03  -96.98   -97.69   -11.05   -13.93   -20.12   -25.70
SO XBADJ    COOL3_03  -30.50   -34.37   -37.19   -38.89   -39.40   -38.72
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SO XBADJ     COOL3_03  -41.44  -43.41  -44.06  -43.37  -41.37   51.83
SO XBADJ     COOL3_03  -33.68  -28.24  -21.94  -48.44  -77.21 -103.63
SO XBADJ     COOL3_03 -126.90 -146.32 -161.29 -171.36 -176.22 -175.73
SO YBADJ     COOL3_03  -17.26   33.18   10.18  -13.13  -55.98   22.63
SO YBADJ     COOL3_03    9.68   -3.56  -68.50  -66.52  -62.51  -56.60
SO YBADJ     COOL3_03  -48.98  -39.86  -29.54  -18.31   -6.53    5.44
SO YBADJ     COOL3_03   17.26   28.54   38.97   48.20   55.98  -22.63
SO YBADJ     COOL3_03   66.23   68.41   68.50   66.52   62.51   56.60
SO YBADJ     COOL3_03   48.98   39.86   29.54   18.31    6.53   -5.44

SO BUILDHGT COOL3_04   14.94   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL3_04   14.94   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_04   62.37   43.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL3_04  210.24   17.96   10.80   16.56  211.84  201.33
SO BUILDWID COOL3_04  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_04   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_04  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_04  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_04  215.91   23.30   29.34   34.48   38.57  135.28
SO BUILDLEN COOL3_04  104.00   43.51   42.54   43.42   97.33  129.33
SO BUILDLEN COOL3_04  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_04  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_04  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_04  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ     COOL3_04 -156.44 -166.90 -132.05 -136.15 -136.11  -87.81
SO XBADJ     COOL3_04  -63.80  -94.25  -95.15  -94.75  -26.10  -34.59
SO XBADJ     COOL3_04  -42.02  -48.17  -52.87  -55.95  -57.34  -56.98
SO XBADJ     COOL3_04  -59.47  -60.66  -60.01  -57.54  -53.32  -47.48
SO XBADJ     COOL3_04  -40.19  -31.69  -22.22  -45.55  -71.23  -94.74
SO XBADJ     COOL3_04 -115.38 -132.51 -145.61 -154.29 -158.28 -157.47
SO YBADJ     COOL3_04  -14.36   24.46   19.07   -1.60  -22.23  -46.37
SO YBADJ     COOL3_04  -49.17   14.37    1.57  -11.29  -45.26  -40.65
SO YBADJ     COOL3_04  -34.81  -27.91  -20.16  -11.81   -3.09    5.72
SO YBADJ     COOL3_04   14.36   22.56   30.08   36.68   42.17   46.37
SO YBADJ     COOL3_04   49.17   50.47   50.24   48.49   45.26   40.65
SO YBADJ     COOL3_04   34.81   27.91   20.16   11.81    3.09   -5.72

SO BUILDHGT COOL3_05   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_05   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_05   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_05   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_05   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_05   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_05   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_05  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL3_05  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_05   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_05  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL3_05  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_05  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_05  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL3_05  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_05  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_05  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL3_05  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ     COOL3_05 -140.63 -151.68 -117.88 -123.46 -125.29 -123.32
SO XBADJ     COOL3_05  -57.65  -34.35  -10.01  -96.76  -96.36  -93.04
SO XBADJ     COOL3_05  -51.67  -59.88  -66.27  -70.65  -72.88  -72.90
SO XBADJ     COOL3_05  -75.28  -75.88  -74.18  -70.22  -64.13  -56.10
SO XBADJ     COOL3_05  -46.35  -35.20  -22.98  -43.53  -66.50   51.11
SO XBADJ     COOL3_05 -105.73 -120.80 -132.21 -139.59 -142.74 -141.55
SO YBADJ     COOL3_05  -12.35   29.19   26.37    8.05  -10.52  -28.77
SO YBADJ     COOL3_05  -34.47  -34.93  -34.32    4.52   -8.58  -21.42
SO YBADJ     COOL3_05  -22.13  -17.10  -11.55   -5.65    0.42    6.48
SO YBADJ     COOL3_05   12.35   17.83   22.78   27.03   30.46   32.97
SO YBADJ     COOL3_05   34.47   34.93   34.32   32.68   30.04   21.42
SO YBADJ     COOL3_05   22.13   17.10   11.55    5.65   -0.42   -6.48

SO BUILDHGT COOL3_06   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_06   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_06   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_06   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_06   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_06   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_06   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_06  210.24  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL3_06   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_06   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_06  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_06   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_06  215.91   23.30   29.34   34.48   38.57   41.50
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SO BUILDLEN COOL3_06  104.00   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL3_06   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_06  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_06  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_06   39.26   35.39  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_06 -123.83 -135.69 -103.18 -110.50 -114.46 -114.95
SO XBADJ    COOL3_06  -51.99  -31.59  -10.22  -22.02 -102.41 -101.77
SO XBADJ    COOL3_06  -98.04  -91.33  -81.19  -86.79  -89.76  -90.00
SO XBADJ    COOL3_06  -92.08  -91.88  -88.89  -83.19  -74.97  -64.46
SO XBADJ    COOL3_06  -52.00  -37.96  -22.77  -40.36  -60.45  -78.71
SO XBADJ    COOL3_06   58.78   55.94 -117.29 -123.45 -125.86 -124.45
SO YBADJ    COOL3_06   -9.17   35.23   35.10   19.20    2.71  -13.85
SO YBADJ    COOL3_06  -18.33  -18.05  -17.22  -15.87    7.42   -6.72
SO YBADJ    COOL3_06  -20.65  -33.95   -3.18    0.00    3.19    6.27
SO YBADJ    COOL3_06    9.17   11.79   14.04   15.88   17.23   18.05
SO YBADJ    COOL3_06   18.33   18.05   17.22   15.87   14.04   11.78
SO YBADJ    COOL3_06   20.65   33.95    3.18    0.00   -3.19   -6.27


SO BUILDHGT COOL3_07   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_07   31.39   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_07   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_07   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_07   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_07   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_07   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_07   24.57  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL3_07   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_07   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_07  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_07  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_07  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_07   43.16   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL3_07   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_07  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_07  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_07  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_07 -109.26 -105.92 -129.86  -98.77 -104.45 -106.95
SO XBADJ    COOL3_07 -106.21  -28.28   -9.45  -23.81 -106.70 -108.43
SO XBADJ    COOL3_07 -106.87 -102.06  -93.50 -100.30 -104.06 -104.66
SO XBADJ    COOL3_07 -106.66 -105.92 -101.97  -94.91  -84.98  -72.46
SO XBADJ    COOL3_07  -57.74  -41.27  -23.54  -38.57  -56.16  -72.05
SO XBADJ    COOL3_07  -85.74  -96.83 -104.98 -109.94 -111.56 -109.79
SO YBADJ    COOL3_07   -7.38   -7.50   19.82   28.03   13.45   -1.54
SO YBADJ    COOL3_07  -16.49   -3.75   -2.56   -1.30   21.46    6.36
SO YBADJ    COOL3_07   -8.92  -23.94    4.82    5.74    6.49    7.04
SO YBADJ    COOL3_07    7.38    7.50    7.38    7.04    6.49    5.74
SO YBADJ    COOL3_07    4.82    3.75    2.56    1.30    0.00   -1.30
SO YBADJ    COOL3_07   -2.56   -3.75   -4.82   -5.74   -6.49   -7.04


SO BUILDHGT COOL3_08   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_08   31.39   31.39   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_08   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL3_08   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_08   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_08   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_08   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_08   24.57   17.96  214.45  215.91  211.84   29.34
SO BUILDWID COOL3_08   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL3_08   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL3_08  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_08  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_08  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_08   43.16   43.51   32.99   62.37   97.33   41.93
SO BUILDLEN COOL3_08   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL3_08  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL3_08  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_08  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_08  -91.91  -89.23 -114.33 -120.23  -92.62 -121.01
SO XBADJ    COOL3_08  -99.50  -98.44   -8.68  -26.08  -46.42 -116.51
SO XBADJ    COOL3_08 -117.52 -114.96 -108.91 -116.47 -121.14 -122.14
SO XBADJ    COOL3_08 -124.00 -122.61 -117.49 -108.80   54.05   56.05
SO XBADJ    COOL3_08  -64.44  -45.06  -24.31  -36.29  -50.91  -63.97
SO XBADJ    COOL3_08  -75.10  -83.94  -90.23  -93.78  -94.48  -92.31
SO YBADJ    COOL3_08   -5.10   -2.24   27.90   10.17   26.35  -25.67
SO YBADJ    COOL3_08   -0.33  -13.85   14.92   16.05   16.69   21.89
SO YBADJ    COOL3_08    4.96  -12.11  -28.82   12.44   10.29    7.81
SO YBADJ    COOL3_08    5.10    2.24   -0.69   -3.60  -26.35  -13.21
SO YBADJ    COOL3_08  -11.35  -13.33  -14.92  -16.05  -16.69  -16.83
SO YBADJ    COOL3_08  -16.45  -15.57  -14.23  -12.44  -10.29   -7.81


SO BUILDHGT COOL3_09   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_09   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_09   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL3_09   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_09   14.94   14.94   14.94   14.94   14.94   14.94
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SO BUILDHGT COOL3_09   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_09   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_09   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_09   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL3_09   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL3_09  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_09  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_09  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_09   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_09   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL3_09  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL3_09  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_09  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_09  -76.06  -74.15 -100.47 -108.02 -112.28 -113.13
SO XBADJ    COOL3_09  -94.19  -95.85   -8.90  -29.10  -52.15  -73.61
SO XBADJ    COOL3_09 -128.05 -127.46 -122.98 -131.70 -137.07 -138.27
SO XBADJ    COOL3_09 -139.85 -137.69 -131.35 -121.01 -107.00   48.17
SO XBADJ    COOL3_09  -69.75  -47.64  -24.09  -33.27  -45.18  -55.72
SO XBADJ    COOL3_09  -64.56  -71.44  -76.15  -78.54  -78.55  -76.18
SO YBADJ    COOL3_09   -2.09    3.48   36.15   20.70    4.62  -11.59
SO YBADJ    COOL3_09   14.91    2.07   31.05   31.89   31.77   30.68
SO YBADJ    COOL3_09   17.18   -1.91  -20.94   17.75   12.87    7.59
SO YBADJ    COOL3_09    2.09   -3.48   -8.95  -14.14  -18.90  -27.29
SO YBADJ    COOL3_09  -26.58  -29.26  -31.05  -31.89  -31.77  -30.68
SO YBADJ    COOL3_09  -28.66  -25.77  -22.10  -17.75  -12.87   -7.59


SO BUILDHGT COOL3_10   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_10   31.39   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL3_10   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_10   14.94   14.94   14.94   31.39   14.94   14.94
SO BUILDHGT COOL3_10   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_10   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_10   62.37   97.33  129.33   39.26   35.39   30.44
SO BUILDWID COOL3_10   24.57   17.96   10.80   16.56   23.30  201.33
SO BUILDWID COOL3_10   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL3_10   62.37   97.33  129.33   39.26  180.68  198.48
SO BUILDWID COOL3_10  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_10  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_10  215.91  211.84  201.33   34.48   38.57   41.50
SO BUILDLEN COOL3_10   43.16   43.51   42.54   43.42   43.33  129.33
SO BUILDLEN COOL3_10   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL3_10  215.91  211.84  201.33   34.48  162.46  135.28
SO BUILDLEN COOL3_10  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_10  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_10  -60.33  -59.08  -56.04  -95.64 -101.83 -104.93
SO XBADJ    COOL3_10 -104.84  -92.81  -94.32  -94.54  -92.06  -81.33
SO XBADJ    COOL3_10 -138.08 -139.48 -136.64 -129.65 -152.71 -154.20
SO XBADJ    COOL3_10 -155.59 -152.76 -145.28   61.16 -117.46  -97.95
SO XBADJ    COOL3_10  -75.46  -50.69  -24.37  -30.78  -40.00  -47.99
SO XBADJ    COOL3_10  -54.53  -59.42  -62.49  -63.67  -62.91  -60.25
SO YBADJ    COOL3_10    0.40    8.67   16.67   30.73   16.65    2.06
SO YBADJ    COOL3_10  -12.59   17.71    5.10   -7.66  -20.19   44.62
SO YBADJ    COOL3_10   29.56    8.54  -12.73  -33.62   15.91    7.87
SO YBADJ    COOL3_10   -0.40   -8.67  -16.67  -30.73  -30.93  -36.75
SO YBADJ    COOL3_10  -41.45  -44.90  -46.98  -47.63  -46.84  -44.62
SO YBADJ    COOL3_10  -41.05  -36.23  -30.31  -23.47  -15.91   -7.87


SO BUILDHGT COOL3_11   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_11   31.39   31.39   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_11   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_11   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_11   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_11   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_11   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL3_11   24.57   17.96  214.45   16.56   23.30   29.34
SO BUILDWID COOL3_11   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL3_11   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL3_11  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL3_11   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_11  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL3_11   43.16   43.51   32.99   43.42   43.33   41.93
SO BUILDLEN COOL3_11   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL3_11  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL3_11  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL3_11   39.26  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_11  -44.59  -44.02  -42.11  -38.92  -91.37  -96.72
SO XBADJ    COOL3_11  -99.12  -98.52   -8.34  -97.03  -97.24  -94.51
SO XBADJ    COOL3_11  -88.89 -151.50 -150.30 -144.52 -168.35 -170.13
SO XBADJ    COOL3_11 -171.32 -167.82 -159.22 -145.78   52.80   55.22
SO XBADJ    COOL3_11  -81.18  -53.73  -24.65  -28.29  -34.81   52.57
SO XBADJ    COOL3_11   49.64  -47.39  -48.84  -48.80  -47.28  -44.32
SO YBADJ    COOL3_11    2.89   13.85   24.39   34.19   28.67   15.72
SO YBADJ    COOL3_11    2.29  -11.21   62.91    8.08   -5.13  -18.17
SO YBADJ    COOL3_11  -30.67   19.00   -4.53  -27.91   18.95    8.15
SO YBADJ    COOL3_11   -2.89  -13.85  -24.39  -34.19  -28.67  -15.72
SO YBADJ    COOL3_11  -56.32  -60.54  -62.91  -63.37  -61.90   18.17
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SO YBADJ    COOL3_11   30.67  -46.68  -38.51  -29.18  -18.95   -8.15

SO BUILDHGT COOL3_12   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_12   31.39   31.39   31.39   14.94   31.39   31.39
SO BUILDHGT COOL3_12   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_12   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_12   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_12   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_12   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL3_12   24.57   17.96   10.80  215.91   23.30   29.34
SO BUILDWID COOL3_12   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL3_12   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL3_12   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_12   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_12  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL3_12   43.16   43.51   42.54   62.37   43.33   41.93
SO BUILDLEN COOL3_12   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL3_12  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL3_12   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_12   39.26   35.39  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_12  -27.84  -27.79  -26.90  -25.19  -22.71  -87.14
SO XBADJ    COOL3_12  -92.09  -94.24  -93.53  -35.62 -101.67 -101.68
SO XBADJ    COOL3_12  -98.60 -163.45 -164.12 -159.80 -184.61 -186.89
SO XBADJ    COOL3_12 -188.07 -184.05 -174.43 -159.51 -139.75   45.64
SO XBADJ    COOL3_12   48.93  -58.01  -26.04  -26.75  -30.38  -33.10
SO XBADJ    COOL3_12   59.35   57.14  -35.02  -33.52  -31.01  -27.56
SO YBADJ    COOL3_12    4.44   18.28   31.57   43.90   54.89   29.54
SO YBADJ    COOL3_12   17.56    5.05   -7.61   80.11   11.10   -2.96
SO YBADJ    COOL3_12  -16.93   30.84    5.06  -20.87   23.23    9.54
SO YBADJ    COOL3_12   -4.44  -18.28  -31.57  -43.90  -54.89  -29.54
SO YBADJ    COOL3_12  -17.56  -76.80  -79.67  -80.11  -78.13  -73.77
SO YBADJ    COOL3_12   16.93   30.39  -48.10  -36.22  -23.23   -9.54

SO BUILDHGT COOL3_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_13   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_13   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_13   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_13   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_13  210.24  215.62   10.80   16.56   23.30   29.34
SO BUILDWID COOL3_13   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL3_13   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_13  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL3_13  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_13  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_13  104.00   69.55   42.54   43.42   43.33   41.93
SO BUILDLEN COOL3_13   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL3_13  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_13  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL3_13  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_13  -10.43  -11.12  -11.48  -11.49  -11.15  -10.47
SO XBADJ    COOL3_13   -9.47   -8.19  -93.23  -94.32  -92.71 -110.24
SO XBADJ    COOL3_13 -109.71 -105.84 -179.23 -176.26 -201.92 -204.52
SO XBADJ    COOL3_13 -205.48 -200.72 -189.85 -173.21 -151.31 -124.82
SO XBADJ    COOL3_13  -94.53  -61.36  -26.34  -23.99  -24.64   46.36
SO XBADJ    COOL3_13  -23.70  -22.13  -19.90  -17.06  -13.70   -9.93
SO YBADJ    COOL3_13    7.20   24.03   40.12   55.00   68.21   79.34
SO YBADJ    COOL3_13   88.06   94.11   10.02   -2.63  -15.20   12.46
SO YBADJ    COOL3_13   -3.24  -18.83   14.13  -14.56   26.59    9.84
SO YBADJ    COOL3_13   -7.20  -24.03  -40.12  -55.00  -68.21  -79.34
SO YBADJ    COOL3_13  -88.06  -94.11  -97.30  -97.53  -94.80   27.31
SO YBADJ    COOL3_13  -80.86  -70.08  -57.17  -42.53  -26.59   -9.84

SO BUILDHGT COOL3_14   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_14   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_14   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL3_14   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_14  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_14   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_14  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_14  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_14  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL3_14   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_14  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_14  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_14  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_14  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_14 -210.60 -178.50 -185.35 -186.57 -120.90 -124.17
SO XBADJ    COOL3_14 -123.66  -63.01  -27.12  -23.88  -23.64  -22.69
SO XBADJ    COOL3_14  -21.05  -18.76  -15.91  -12.58   -8.86   -4.87
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SO XBADJ     COOL3_14    -5.31    -6.10    -6.71    -7.11    -7.30    -7.26
SO XBADJ     COOL3_14    -7.01    -6.54    -5.87   -38.50   -73.69  -106.64
SO XBADJ     COOL3_14  -136.35  -161.92  -182.57  -197.67  -206.76  -209.58
SO YBADJ     COOL3_14    -7.31    36.70     7.17   -22.57    19.28     1.35
SO YBADJ     COOL3_14   -16.63   -98.95  -102.35  -102.64   -99.81   -93.95
SO YBADJ     COOL3_14   -85.24   -73.93   -60.38   -44.99   -28.24   -10.63
SO YBADJ     COOL3_14     7.31    25.02    41.97    57.65    71.58    83.33
SO YBADJ     COOL3_14    92.55    98.95   102.35   102.64    99.81    93.95
SO YBADJ     COOL3_14    85.24    73.93    60.38    44.99    28.24    10.63

SO BUILDHGT  COOL3_15    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT  COOL3_15    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT  COOL3_15    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT  COOL3_15    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT  COOL3_15    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT  COOL3_15    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID  COOL3_15    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID  COOL3_15    24.57    17.96   214.45   215.91   211.84   201.33
SO BUILDWID  COOL3_15   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDWID  COOL3_15    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID  COOL3_15   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID  COOL3_15   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN  COOL3_15   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN  COOL3_15    43.16    43.51    32.99    62.37    97.33   129.33
SO BUILDLEN  COOL3_15   157.40   180.68   198.48   210.24   215.62   214.45
SO BUILDLEN  COOL3_15   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN  COOL3_15   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN  COOL3_15   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ     COOL3_15  -192.66  -188.56  -169.48  -172.48  -109.01  -114.84
SO XBADJ     COOL3_15  -117.18  -115.97   -26.84   -26.76   -29.59   -31.53
SO XBADJ     COOL3_15   -32.51   -32.50   -31.51   -29.55   -26.70   -23.04
SO XBADJ     COOL3_15   -23.26   -23.27   -22.59   -21.21   -19.19   -16.59
SO XBADJ     COOL3_15   -13.48    -9.97    -6.15   -35.62   -67.73   -97.79
SO XBADJ     COOL3_15  -124.88  -148.18  -166.97  -180.69  -188.92  -191.41
SO YBADJ     COOL3_15    -4.43   -19.07    16.02   -11.11    33.02    16.94
SO YBADJ     COOL3_15     0.34   -16.26   -84.18   -84.70   -82.64   -78.08
SO YBADJ     COOL3_15   -71.14   -62.04   -51.05   -38.51   -24.81   -10.35
SO YBADJ     COOL3_15     4.43    19.07    33.13    46.19    57.84    67.73
SO YBADJ     COOL3_15    75.57    81.11    84.18    84.70    82.64    78.08
SO YBADJ     COOL3_15    71.14    62.04    51.05    38.51    24.81    10.35

SO BUILDHGT  COOL3_16    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT  COOL3_16    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT  COOL3_16    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT  COOL3_16    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT  COOL3_16    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT  COOL3_16    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID  COOL3_16    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID  COOL3_16    24.57    17.96   214.45   215.91   211.84   201.33
SO BUILDWID  COOL3_16   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDWID  COOL3_16    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID  COOL3_16   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID  COOL3_16   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN  COOL3_16   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN  COOL3_16    43.16    43.51    32.99    62.37    97.33   129.33
SO BUILDLEN  COOL3_16   157.40   180.68   198.48   210.24   215.62   214.45
SO BUILDLEN  COOL3_16   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN  COOL3_16   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN  COOL3_16   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ     COOL3_16  -176.99  -173.48  -155.43  -159.91  -159.52  -106.30
SO XBADJ     COOL3_16  -111.08  -112.49   -26.09   -28.76   -34.29   -38.77
SO XBADJ     COOL3_16   -42.08   -44.11   -44.80   -44.13   -42.11   -38.82
SO XBADJ     COOL3_16   -38.93   -38.36   -36.63   -33.78   -29.91   -25.13
SO XBADJ     COOL3_16   -19.59   -13.45    -6.90   -33.61   -63.04   -90.55
SO XBADJ     COOL3_16  -115.32  -136.57  -153.68  -166.12  -173.51  -175.63
SO YBADJ     COOL3_16    -2.43   -14.38    23.26    -1.54   -26.29    30.23
SO YBADJ     COOL3_16    14.92    -0.85   -68.40   -69.03   -67.56   -64.04
SO YBADJ     COOL3_16   -58.57   -51.32   -42.51   -32.41   -21.33    -9.60
SO YBADJ     COOL3_16     2.43    14.38    25.89    36.62    46.23    54.44
SO YBADJ     COOL3_16    61.00    65.70    68.40    69.03    67.56    64.04
SO YBADJ     COOL3_16    58.57    51.32    42.51    32.41    21.33     9.60

SO BUILDHGT  COOL3_17    14.94    14.94    31.39    31.39    31.39    14.94
SO BUILDHGT  COOL3_17    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT  COOL3_17    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT  COOL3_17    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT  COOL3_17    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT  COOL3_17    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID  COOL3_17    62.37    97.33    41.93    39.26    35.39   198.48
SO BUILDWID  COOL3_17   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID  COOL3_17   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDWID  COOL3_17    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID  COOL3_17   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID  COOL3_17   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN  COOL3_17   215.91   211.84    29.34    34.48    38.57   135.28
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SO	BUILDLEN	COOL3_17	104.00	69.55	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL3_17	157.40	180.68	198.48	210.24	215.62	214.45
SO	BUILDLEN	COOL3_17	215.91	211.84	201.33	184.70	162.46	135.28
SO	BUILDLEN	COOL3_17	104.00	69.55	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL3_17	157.40	180.68	210.24	210.24	215.62	214.45
SO	XBADJ	COOL3_17	-159.22	-156.40	-139.55	-145.70	-147.42	-100.54
SO	XBADJ	COOL3_17	-77.57	-52.24	-25.32	-31.11	-39.69	-47.06
SO	XBADJ	COOL3_17	-53.00	-57.33	-59.92	-60.68	-59.61	-56.72
SO	XBADJ	COOL3_17	-56.69	-55.44	-52.51	-47.99	-42.01	-34.75
SO	XBADJ	COOL3_17	-26.43	-17.31	-7.67	-31.26	-57.64	-82.27
SO	XBADJ	COOL3_17	-104.40	-123.36	-138.56	-149.56	-156.01	-157.73
SO	YBADJ	COOL3_17	-0.08	-8.98	31.54	9.38	-13.07	-39.32
SO	YBADJ	COOL3_17	-44.44	-48.20	-50.50	-51.27	-50.48	-48.15
SO	YBADJ	COOL3_17	-44.36	-39.22	-32.90	-25.57	-17.46	-8.83
SO	YBADJ	COOL3_17	0.08	8.98	17.61	25.70	33.01	39.32
SO	YBADJ	COOL3_17	44.44	48.20	50.50	51.27	50.48	48.15
SO	YBADJ	COOL3_17	44.36	39.22	32.90	25.57	17.46	8.83

SO	BUILDHGT	COOL3_18	14.94	14.94	31.39	31.39	31.39	31.39
SO	BUILDHGT	COOL3_18	14.94	14.94	14.94	31.39	31.39	31.39
SO	BUILDHGT	COOL3_18	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_18	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_18	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_18	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDWID	COOL3_18	62.37	97.33	41.93	39.26	35.39	30.44
SO	BUILDWID	COOL3_18	210.24	215.62	214.45	16.56	23.30	29.34
SO	BUILDWID	COOL3_18	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDWID	COOL3_18	62.37	97.33	129.33	157.40	180.68	198.48
SO	BUILDWID	COOL3_18	210.24	215.62	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL3_18	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDLEN	COOL3_18	215.91	211.84	29.34	34.48	38.57	41.50
SO	BUILDLEN	COOL3_18	104.00	69.55	32.99	43.42	43.33	41.93
SO	BUILDLEN	COOL3_18	157.40	180.68	198.48	210.24	215.62	214.45
SO	BUILDLEN	COOL3_18	215.91	211.84	201.33	184.70	162.46	135.28
SO	BUILDLEN	COOL3_18	104.00	69.55	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL3_18	157.40	180.68	198.48	210.24	215.62	214.45
SO	XBADJ	COOL3_18	-143.28	-141.04	-165.02	-132.91	-136.52	-135.98
SO	XBADJ	COOL3_18	-71.36	-48.70	-24.56	-111.07	-110.00	-105.58
SO	XBADJ	COOL3_18	-62.74	-69.14	-73.44	-75.52	-75.29	-72.78
SO	XBADJ	COOL3_18	-72.64	-70.79	-66.80	-60.78	-52.91	-43.43
SO	XBADJ	COOL3_18	-32.64	-20.85	-8.43	-29.22	-52.86	-74.90
SO	XBADJ	COOL3_18	-94.66	-111.54	-125.03	-134.73	-140.33	-141.67
SO	YBADJ	COOL3_18	1.96	-4.20	16.97	19.12	-1.26	-21.60
SO	YBADJ	COOL3_18	-29.61	-32.52	-34.44	1.88	-13.67	-28.80
SO	YBADJ	COOL3_18	-31.57	-28.32	-24.21	-19.36	-13.92	-8.07
SO	YBADJ	COOL3_18	-1.96	4.20	10.24	15.96	21.20	25.80
SO	YBADJ	COOL3_18	29.61	32.52	34.44	35.32	35.12	33.86
SO	YBADJ	COOL3_18	31.57	28.32	24.21	19.36	13.92	8.07

SO	BUILDHGT	COOL3_19	14.94	14.94	31.39	31.39	31.39	31.39
SO	BUILDHGT	COOL3_19	14.94	14.94	14.94	14.94	31.39	31.39
SO	BUILDHGT	COOL3_19	31.39	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_19	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_19	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_19	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDWID	COOL3_19	62.37	97.33	41.93	39.26	35.39	30.44
SO	BUILDWID	COOL3_19	210.24	215.62	214.45	215.91	23.30	29.34
SO	BUILDWID	COOL3_19	34.48	162.46	135.28	104.00	69.55	32.99
SO	BUILDWID	COOL3_19	62.37	97.33	129.33	157.40	180.68	198.48
SO	BUILDWID	COOL3_19	210.24	215.62	214.45	215.91	211.84	201.33
SO	BUILDWID	COOL3_19	184.70	162.46	135.28	104.00	69.55	32.99
SO	BUILDLEN	COOL3_19	215.91	211.84	29.34	34.48	38.57	41.50
SO	BUILDLEN	COOL3_19	104.00	69.55	32.99	62.37	43.33	41.93
SO	BUILDLEN	COOL3_19	39.26	180.68	198.48	210.24	215.62	214.45
SO	BUILDLEN	COOL3_19	215.91	211.84	201.33	184.70	162.46	135.28
SO	BUILDLEN	COOL3_19	104.00	69.55	32.99	62.37	97.33	129.33
SO	BUILDLEN	COOL3_19	157.40	180.68	198.48	210.24	215.62	214.45
SO	XBADJ	COOL3_19	-126.18	-124.60	-149.72	-119.22	-124.86	-126.70
SO	XBADJ	COOL3_19	-64.75	-44.95	-23.79	-35.38	-115.16	-113.52
SO	XBADJ	COOL3_19	-108.43	-81.84	-87.97	-91.43	-92.12	-90.00
SO	XBADJ	COOL3_19	-89.73	-87.24	-82.10	-74.47	-64.57	-52.71
SO	XBADJ	COOL3_19	-39.25	-24.60	-9.20	-26.99	-47.70	-66.96
SO	XBADJ	COOL3_19	-84.18	-98.84	-110.51	-118.81	-123.51	-124.45
SO	YBADJ	COOL3_19	4.19	0.97	24.91	29.60	11.44	-7.07
SO	YBADJ	COOL3_19	-13.69	-15.69	-17.22	-18.23	2.78	-13.50
SO	YBADJ	COOL3_19	-29.37	-16.66	-14.93	-12.75	-10.18	-7.30
SO	YBADJ	COOL3_19	-4.19	-0.97	2.29	5.48	8.50	11.27
SO	YBADJ	COOL3_19	13.69	15.69	17.22	18.23	18.68	18.56
SO	YBADJ	COOL3_19	17.88	16.66	14.93	12.75	10.18	7.30

SO	BUILDHGT	COOL3_20	14.94	14.94	31.39	31.39	31.39	31.39
SO	BUILDHGT	COOL3_20	31.39	14.94	14.94	14.94	31.39	31.39
SO	BUILDHGT	COOL3_20	31.39	31.39	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_20	14.94	14.94	14.94	14.94	14.94	14.94
SO	BUILDHGT	COOL3_20	14.94	14.94	14.94	14.94	14.94	14.94

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SO BUILDHGT COOL3_20    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_20    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL3_20    24.57   215.62   214.45   215.91    23.30    29.34
SO BUILDWID COOL3_20    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL3_20    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL3_20   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_20   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_20   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL3_20    43.16    69.55    32.99    62.37    43.33    41.93
SO BUILDLEN COOL3_20    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL3_20   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL3_20   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_20   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_20  -110.33  -109.51  -135.85  -142.34  -114.65  -118.82
SO XBADJ    COOL3_20  -119.38   -42.37   -24.01   -38.40  -120.89  -121.78
SO XBADJ    COOL3_20  -118.98  -112.56  -102.06  -106.68  -108.05  -106.14
SO XBADJ    COOL3_20  -105.58  -102.33   -95.97   -86.69   -74.78   -60.59
SO XBADJ    COOL3_20   -44.57   -27.18    -8.98   -23.97   -41.97   -58.70
SO XBADJ    COOL3_20   -73.64   -86.34   -96.42  -103.57  -107.57  -108.31
SO YBADJ    COOL3_20     7.21     6.69    33.17    11.62    23.94     7.02
SO YBADJ    COOL3_20   -10.12     0.24    -1.08    -2.37    17.87     0.37
SO YBADJ    COOL3_20   -17.15   -34.14    -7.05    -7.43    -7.59    -7.52
SO YBADJ    COOL3_20    -7.21    -6.69    -5.97    -5.06    -4.00    -2.82
SO YBADJ    COOL3_20    -1.55    -0.24     1.08     2.37     3.59     4.70
SO YBADJ    COOL3_20     5.66     6.45     7.05     7.43     7.59     7.52

SO BUILDHGT COOL3_21    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL3_21    31.39    31.39    14.94    14.94    14.94    31.39
SO BUILDHGT COOL3_21    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_21    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL3_21    24.57    17.96   214.45   215.91   211.84    29.34
SO BUILDWID COOL3_21    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL3_21    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL3_21   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_21   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_21   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL3_21    43.16    43.51    32.99    62.37    97.33    41.93
SO BUILDLEN COOL3_21    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL3_21   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL3_21   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_21   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_21   -94.56   -94.41   -91.40  -129.94  -134.04  -134.06
SO XBADJ    COOL3_21  -113.66  -113.27   -23.73   -40.90   -60.55  -129.52
SO XBADJ    COOL3_21  -129.02  -124.60  -115.74  -121.58  -123.72  -122.10
SO XBADJ    COOL3_21  -121.35  -117.42  -109.93   -99.09   -85.25   -68.81
SO XBADJ    COOL3_21   -50.29   -30.23    -9.26   -21.48   -36.78   -50.96
SO XBADJ    COOL3_21   -63.59   -74.29   -82.74   -88.67   -91.90   -92.35
SO YBADJ    COOL3_21     9.71    11.89    13.71    21.67     1.77   -18.18
SO YBADJ    COOL3_21     4.78   -11.28    14.88    13.39    11.50    14.33
SO YBADJ    COOL3_21    -4.74   -23.66     1.17    -1.71    -4.54    -7.24
SO YBADJ    COOL3_21    -9.71   -11.89   -13.71   -15.11   -16.05   -16.50
SO YBADJ    COOL3_21   -16.45   -15.91   -14.88   -13.39   -11.50    -9.27
SO YBADJ    COOL3_21    -6.74    -4.02    -1.17     1.71     4.54     7.24

SO BUILDHGT COOL3_22    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL3_22    31.39    31.39    14.94    14.94    14.94    31.39
SO BUILDHGT COOL3_22    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL3_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_22    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL3_22    24.57    17.96   214.45   215.91   211.84    29.34
SO BUILDWID COOL3_22    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL3_22    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL3_22   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_22   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_22   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL3_22    43.16    43.51    32.99    62.37    97.33    41.93
SO BUILDLEN COOL3_22    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL3_22   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL3_22   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_22   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_22   -78.80   -79.32   -77.44  -117.53  -123.56  -125.84
SO XBADJ    COOL3_22  -124.29  -110.22   -23.45   -43.39   -65.75  -137.26
SO XBADJ    COOL3_22  -139.07  -136.65  -130.08  -136.48  -139.39  -138.06
SO XBADJ    COOL3_22  -137.12  -132.52  -123.89  -111.50   -95.72   -77.04
SO XBADJ    COOL3_22   -56.01   -33.28    -9.54   -18.98   -31.58   -43.22
SO XBADJ    COOL3_22   -53.55   -62.25   -69.06   -73.77   -76.23   -76.39
SO YBADJ    COOL3_22    12.21    17.08    21.44    31.71    13.82    -4.50
SO YBADJ    COOL3_22   -22.68     4.39    30.84    29.16    26.60    28.29
SO YBADJ    COOL3_22     7.67   -13.19   -33.65     4.01    -1.50    -6.96
SO YBADJ    COOL3_22   -12.21   -17.08   -21.44   -25.15   -28.09   -30.18
SO YBADJ    COOL3_22   -31.36   -31.58   -30.84   -29.16   -26.60   -23.23
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SO YBADJ    COOL3_22  -19.15  -14.49   -9.39   -4.01    1.50    6.96

SO BUILDHGT COOL3_23   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL3_23   31.39   14.94   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_23   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL3_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_23   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL3_23   24.57  215.62   10.80   16.56  211.84  201.33
SO BUILDWID COOL3_23   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL3_23   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_23  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_23  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_23  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL3_23   43.16   69.55   42.54   43.42   97.33  129.33
SO BUILDLEN COOL3_23   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL3_23  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_23  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_23  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_23  -61.10  -62.26  -61.54  -58.94 -111.38 -116.10
SO XBADJ    COOL3_23 -117.29  -32.23 -108.18 -108.48  -70.92  -94.17
SO XBADJ    COOL3_23 -149.76 -149.66 -145.01 -152.87 -156.75 -155.86
SO XBADJ    COOL3_23 -154.81 -149.58 -139.79 -125.76 -107.91  -86.78
SO XBADJ    COOL3_23  -63.01  -37.33  -10.51  -16.85  -26.40  -35.16
SO XBADJ    COOL3_23  -42.85  -49.24  -54.13  -57.37  -58.87  -58.59
SO YBADJ    COOL3_23   14.34   22.26   29.50   35.85   26.83   10.43
SO YBADJ    COOL3_23   -6.29   48.94    6.76   -8.43   43.66   39.13
SO YBADJ    COOL3_23   21.92   -1.01  -23.91   11.01    2.55   -5.99
SO YBADJ    COOL3_23  -14.34  -22.26  -29.50  -35.85  -41.11  -45.11
SO YBADJ    COOL3_23  -47.75  -48.94  -48.64  -46.86  -43.66  -39.13
SO YBADJ    COOL3_23  -33.41  -26.68  -19.13  -11.01   -2.55    5.99


SO BUILDHGT COOL3_24   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL3_24   31.39   31.39   14.94   31.39   31.39   31.39
SO BUILDHGT COOL3_24   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL3_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_24   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL3_24   24.57   17.96  214.45   16.56   23.30   29.34
SO BUILDWID COOL3_24   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL3_24   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_24  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_24  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_24  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL3_24   43.16   43.51   32.99   43.42   43.33   41.93
SO BUILDLEN COOL3_24   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL3_24  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_24  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_24  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_24  -46.92  -48.90  -49.40  -48.40  -45.93 -109.65
SO XBADJ    COOL3_24 -113.22 -113.35  -23.45 -111.96 -111.55 -107.74
SO XBADJ    COOL3_24 -159.87 -161.44 -158.11 -166.90 -171.27 -170.43
SO XBADJ    COOL3_24 -168.99 -162.94 -151.92 -136.30 -116.53  -93.22
SO XBADJ    COOL3_24  -67.08  -38.90   -9.54  -13.36  -20.51  -27.04
SO XBADJ    COOL3_24  -32.74  -37.45  -41.02  -43.35  -44.36  -44.02
SO YBADJ    COOL3_24   17.83   28.16   37.63   45.96   52.89   23.53
SO YBADJ    COOL3_24    7.74   -8.30   63.21    5.75  -10.01  -25.47
SO YBADJ    COOL3_24   32.46    7.62  -17.46   15.08    4.12   -6.96
SO YBADJ    COOL3_24  -17.83  -28.16  -37.63  -45.96  -52.89  -58.22
SO YBADJ    COOL3_24  -61.77  -63.45  -63.21  -61.04  -57.02  -51.26
SO YBADJ    COOL3_24  -43.95  -35.30  -25.58  -15.08   -4.12    6.96


SO BUILDHGT COOL3_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_25   31.39   31.39   31.39   14.94   31.39   31.39
SO BUILDHGT COOL3_25   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL3_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_25   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_25   24.57   17.96   10.80  215.91   23.30   29.34
SO BUILDWID COOL3_25   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL3_25   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_25  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_25  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_25  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_25   43.16   43.51   42.54   62.37   43.33   41.93
SO BUILDLEN COOL3_25   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL3_25  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_25  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_25  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_25  -30.59  -33.24  -34.88  -35.46  -34.96  -33.40
SO XBADJ    COOL3_25 -107.13 -110.01 -109.55  -51.40 -116.73 -115.57
SO XBADJ    COOL3_25 -110.89 -173.77 -172.15 -165.31 -187.42 -186.92
SO XBADJ    COOL3_25 -185.32 -178.59 -166.45 -149.24 -127.50 -101.88
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SO XBADJ    COOL3_25  -73.17  -42.24  -10.02  -10.97  -15.32  -19.21
SO XBADJ    COOL3_25  -22.51  -25.13  -26.98  -28.02  -28.20  -27.53
SO YBADJ    COOL3_25   20.22   33.34   45.46   56.19   65.21   72.26
SO YBADJ    COOL3_25   23.07    7.86   -7.58   77.36    5.65  -10.95
SO YBADJ    COOL3_25  -27.21   18.58   -8.80  -35.92    7.46   -6.48
SO YBADJ    COOL3_25  -20.22  -33.34  -45.46  -56.19  -65.21  -72.26
SO YBADJ    COOL3_25  -77.11  -79.61  -79.70  -77.36  -72.68  -65.78
SO YBADJ    COOL3_25  -56.89  -46.27  -34.24  -21.17   -7.46    6.48


SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_26   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL3_26   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL3_26   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_26  210.24  215.62   10.80   16.56   23.30   29.34
SO BUILDWID COOL3_26   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL3_26   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL3_26  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL3_26  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL3_26  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_26  104.00   69.55   42.54   43.42   43.33   41.93
SO BUILDLEN COOL3_26   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL3_26  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL3_26  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL3_26  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL3_26  -12.64  -15.86  -18.59  -20.76  -22.29  -23.15
SO XBADJ    COOL3_26  -23.31  -22.76 -108.09 -109.02 -121.51 -123.29
SO XBADJ    COOL3_26 -121.33 -115.68 -186.33 -198.61 -204.87 -204.89
SO XBADJ    COOL3_26 -203.27 -195.98 -182.74 -163.94 -140.17 -112.13
SO XBADJ    COOL3_26  -80.69  -46.79  -11.48   -9.29  -10.55  -11.49
SO XBADJ    COOL3_26  -12.08  -12.30  -12.15  -11.63  -10.76   -9.56
SO YBADJ    COOL3_26   21.90   38.12   53.18   66.62   78.04   87.09
SO YBADJ    COOL3_26   93.49   97.05   10.39   -4.85   23.03    5.35
SO YBADJ    COOL3_26  -12.50  -29.97   44.49   28.69   12.02   -5.02
SO YBADJ    COOL3_26  -21.90  -38.12  -53.18  -66.62  -78.04  -87.09
SO YBADJ    COOL3_26  -93.49  -97.05  -97.67  -95.31  -90.06  -82.07
SO YBADJ    COOL3_26  -71.59  -58.94  -44.49  -28.69  -12.02    5.02

SO BUILDHGT FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3    0.00    0.00    0.00    0.00    0.00   26.82
SO BUILDHGT FULHEAT3   26.82   26.82   31.39   31.39   31.39   31.39
SO BUILDHGT FULHEAT3   31.39    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3    0.00    0.00    0.00    0.00    0.00   25.00
SO BUILDWID FULHEAT3   26.64   27.47   41.50   43.16   43.51   42.54
SO BUILDWID FULHEAT3   43.42    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3    0.00    0.00    0.00    0.00    0.00   27.46
SO BUILDLEN FULHEAT3   27.47   26.64   30.44   24.57   17.96   10.80
SO BUILDLEN FULHEAT3   16.56    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00 -146.49
SO XBADJ    FULHEAT3 -147.95 -144.92 -102.79 -104.28 -102.60 -143.85
SO XBADJ    FULHEAT3  -96.66    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00   20.00
SO YBADJ    FULHEAT3   -3.36  -26.61   33.12   17.41    1.18  -14.66
SO YBADJ    FULHEAT3  -30.92    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT3    0.00    0.00    0.00    0.00    0.00    0.00

** FPL WEST COUNTY UNIT 1 AND 2 SOURCES

   LOCATION FPLWC1A POINT 562217.400 2953555.830 4.000
   LOCATION FPLWC1B POINT 562216.490 2953461.530 4.000
   LOCATION FPLWC1C POINT 562215.370 2953416.640 4.000
   LOCATION FPLWC2A POINT 562210.050 2953149.570 4.000
   LOCATION FPLWC2B POINT 562208.630 2953056.360 4.000
   LOCATION FPLWC2C POINT 562207.660 2953010.730 4.000
   LOCATION FULHEAT1 POINT 562195.690 2953700.000 4.000
   LOCATION FULHEAT2 POINT 562195.690 2953317.000 4.000
   LOCATION COOL1_01 POINT 562263.110 2953601.650 4.000
   LOCATION COOL1_02 POINT 562264.070 2953584.680 4.000
   LOCATION COOL1_03 POINT 562263.180 2953568.780 4.000
   LOCATION COOL1_04 POINT 562262.900 2953551.740 4.000
   LOCATION COOL1_05 POINT 562261.390 2953535.850 4.000
   LOCATION COOL1_06 POINT 562261.730 2953519.620 4.000
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LOCATION COOL1_07 POINT 562262.060 2953502.920 4.000
LOCATION COOL1_08 POINT 562261.160 2953485.700 4.000
LOCATION COOL1_09 POINT 562261.510 2953470.080 4.000
LOCATION COOL1_10 POINT 562261.230 2953453.560 4.000
LOCATION COOL1_11 POINT 562260.950 2953437.670 4.000
LOCATION COOL1_12 POINT 562260.100 2953421.080 4.000
LOCATION COOL1_13 POINT 562261.040 2953403.580 4.000
LOCATION COOL1_14 POINT 562279.160 2953601.940 4.000
LOCATION COOL1_15 POINT 562278.880 2953584.990 4.000
LOCATION COOL1_16 POINT 562278.610 2953568.630 4.000
LOCATION COOL1_17 POINT 562278.200 2953551.910 4.000
LOCATION COOL1_18 POINT 562278.540 2953535.260 4.000
LOCATION COOL1_19 POINT 562277.640 2953518.300 4.000
LOCATION COOL1_20 POINT 562277.990 2953502.670 4.000
LOCATION COOL1_21 POINT 562276.980 2953486.120 4.000
LOCATION COOL1_22 POINT 562276.700 2953470.200 4.000
LOCATION COOL1_23 POINT 562276.520 2953452.500 4.000
LOCATION COOL1_24 POINT 562275.960 2953437.760 4.000
LOCATION COOL1_25 POINT 562275.600 2953421.000 4.000
LOCATION COOL1_26 POINT 562275.050 2953403.860 4.000
LOCATION COOL2_01 POINT 562253.160 2953199.640 4.000
LOCATION COOL2_02 POINT 562253.350 2953181.920 4.000
LOCATION COOL2_03 POINT 562253.530 2953166.370 4.000
LOCATION COOL2_04 POINT 562253.260 2953150.920 4.000
LOCATION COOL2_05 POINT 562253.450 2953134.920 4.000
LOCATION COOL2_06 POINT 562253.170 2953117.320 4.000
LOCATION COOL2_07 POINT 562252.890 2953101.130 4.000
LOCATION COOL2_08 POINT 562252.610 2953082.680 4.000
LOCATION COOL2_09 POINT 562252.810 2953066.480 4.000
LOCATION COOL2_10 POINT 562252.060 2953051.410 4.000
LOCATION COOL2_11 POINT 562252.720 2953034.940 4.000
LOCATION COOL2_12 POINT 562253.040 2953018.870 4.000
LOCATION COOL2_13 POINT 562252.280 2953001.090 4.000
LOCATION COOL2_14 POINT 562268.040 2953199.560 4.000
LOCATION COOL2_15 POINT 562267.760 2953181.390 4.000
LOCATION COOL2_16 POINT 562268.420 2953166.460 4.000
LOCATION COOL2_17 POINT 562268.140 2953150.900 4.000
LOCATION COOL2_18 POINT 562268.330 2953134.760 4.000
LOCATION COOL2_19 POINT 562268.050 2953117.030 4.000
LOCATION COOL2_20 POINT 562267.770 2953101.300 4.000
LOCATION COOL2_21 POINT 562267.500 2953082.910 4.000
LOCATION COOL2_22 POINT 562267.690 2953066.890 4.000
LOCATION COOL2_23 POINT 562267.690 2953050.880 4.000
LOCATION COOL2_24 POINT 562267.690 2953033.880 4.000
LOCATION COOL2_25 POINT 562267.690 2953016.880 4.000
LOCATION COOL2_26 POINT 562267.690 2953000.880 4.000

SRCPARAM FPLWC1A  4.11    45.4   447.0 20.36 6.71
SRCPARAM FPLWC1B  4.11    45.4   447.0 20.36 6.71
SRCPARAM FPLWC1C  4.11    45.4   447.0 20.26 6.71
SRCPARAM FPLWC2A  4.11    45.4   447.0 20.36 6.71
SRCPARAM FPLWC2B  4.11    45.4   447.0 20.36 6.71
SRCPARAM FPLWC2C  4.11    45.4   447.0 20.26 6.71
SRCPARAM FULHEAT1 0.00252 9.14   533.2 16.15 0.305
SRCPARAM FULHEAT2 0.00252 9.14   533.2 16.15 0.305
SRCPARAM COOL1_01 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_02 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_03 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_04 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_05 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_06 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_07 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_08 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_09 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_10 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_11 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_12 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_13 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_14 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_15 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_16 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_17 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_18 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_19 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_20 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_21 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_22 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_23 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_24 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_25 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL1_26 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL2_01 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL2_02 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL2_03 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL2_04 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL2_05 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL2_06 0.00565 19.202 309.2 7.17 10.668
SRCPARAM COOL2_07 0.00565 19.202 309.2 7.17 10.668
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   SRCPARAM COOL2_08 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_09 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_10 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_11 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_12 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_13 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_14 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_15 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_16 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_17 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_18 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_19 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_20 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_21 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_22 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_23 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_24 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_25 0.00565 19.202 309.2 7.17 10.668
   SRCPARAM COOL2_26 0.00565 19.202 309.2 7.17 10.668

** BUILDING DOWNWASH FOR FPL WEST COUNTY UNIT 1 AND 2 SOURCES

SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID FPLWC1A     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1A     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC1A     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID FPLWC1A     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1A     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC1A     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN FPLWC1A     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1A     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC1A     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN FPLWC1A     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1A     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC1A     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    FPLWC1A    -13.31   -21.39   -28.82   -35.38   -40.86   -45.10
SO XBADJ    FPLWC1A    -47.98   -49.39   -49.30   -49.29   -47.95   -45.16
SO XBADJ    FPLWC1A    -41.00   -35.59   -29.10   -21.72   -13.69    -5.24
SO XBADJ    FPLWC1A     -3.26    -1.91    -0.51     0.90     2.29     3.61
SO XBADJ    FPLWC1A      4.82     5.88     6.76     5.87     4.62     3.23
SO XBADJ    FPLWC1A      1.74     0.20    -1.34    -2.85    -4.27   -99.58
SO YBADJ    FPLWC1A     27.58    26.29    24.20    21.37    17.90    13.88
SO YBADJ    FPLWC1A      9.44     4.71    -0.16    -5.03    -9.74   -14.15
SO YBADJ    FPLWC1A    -18.14   -21.58   -24.36   -26.40   -27.63   -28.03
SO YBADJ    FPLWC1A    -27.58   -26.29   -24.20   -21.37   -17.90   -13.88
SO YBADJ    FPLWC1A     -9.44    -4.71     0.16     5.03     9.74    14.15
SO YBADJ    FPLWC1A     18.14    21.58    24.36    26.40    27.63    29.79


SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID FPLWC1B     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1B     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC1B     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID FPLWC1B     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1B     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC1B     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN FPLWC1B     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1B     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC1B     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN FPLWC1B     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1B     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC1B     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    FPLWC1B    -13.18   -21.42   -29.00   -35.71   -41.33   -45.70
SO XBADJ    FPLWC1B    -48.67   -50.17   -50.14   -50.17   -48.84   -46.03
SO XBADJ    FPLWC1B    -41.83   -36.35   -29.76   -22.28   -14.11    -5.52
SO XBADJ    FPLWC1B     -3.38    -1.89    -0.33     1.23     2.76     4.20
SO XBADJ    FPLWC1B      5.52     6.66     7.61     6.75     5.51     4.10
SO XBADJ    FPLWC1B      2.57     0.96    -0.68    -2.30    -3.85    -5.28
SO YBADJ    FPLWC1B     28.46    27.18    25.07    22.20    18.65    14.54
SO YBADJ    FPLWC1B      9.99     5.13     0.12    -4.90    -9.77   -14.34
SO YBADJ    FPLWC1B    -18.47   -22.04   -24.95   -27.09   -28.42   -28.88
SO YBADJ    FPLWC1B    -28.46   -27.18   -25.07   -22.20   -18.65   -14.54
SO YBADJ    FPLWC1B     -9.99    -5.13    -0.12     4.90     9.77    14.34
SO YBADJ    FPLWC1B     18.47    22.04    24.95    27.09    28.42    28.88

SO BUILDHGT FPLWC1C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1C     31.39    31.39    26.82    31.39    31.39    31.39
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SO BUILDHGT FPLWC1C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC1C     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID FPLWC1C     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1C     24.57    17.96    15.85    16.56    23.30    29.34
SO BUILDWID FPLWC1C     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID FPLWC1C     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC1C     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC1C     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN FPLWC1C     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1C     43.16    43.51    22.55    43.42    43.33    41.93
SO BUILDLEN FPLWC1C     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN FPLWC1C     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC1C     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC1C     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    FPLWC1C     31.22   -22.09   -29.42   -35.85   -41.20   -45.29
SO XBADJ    FPLWC1C    -48.01   -49.26  -119.00   -48.87   -47.41   -67.51
SO XBADJ    FPLWC1C    -69.82   -34.76   -68.08   -64.07   -58.12   -50.41
SO XBADJ    FPLWC1C    -47.79    -1.21     0.08     1.38     2.63     3.80
SO XBADJ    FPLWC1C      4.85     5.76     6.49     5.45     4.07    25.58
SO XBADJ    FPLWC1C     30.57    34.63    37.64    -3.74    40.17    39.61
SO YBADJ    FPLWC1C     35.15    25.74    23.53    20.61    17.07    13.00
SO YBADJ    FPLWC1C      8.55     3.83   -11.18    -5.81   -10.44    25.10
SO YBADJ    FPLWC1C     16.64   -21.91    -1.53   -10.69   -19.52   -27.76
SO YBADJ    FPLWC1C    -35.15   -25.74   -23.53   -20.61   -17.07   -13.00
SO YBADJ    FPLWC1C     -8.55    -3.83     1.01     5.81    10.44   -25.10
SO YBADJ    FPLWC1C    -16.64    -7.67     1.53    26.43    19.52    27.76


SO BUILDHGT FPLWC2A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2A     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID FPLWC2A     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC2A     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC2A     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID FPLWC2A     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC2A     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC2A     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN FPLWC2A     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC2A     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC2A     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN FPLWC2A     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC2A     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC2A     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    FPLWC2A   -105.09  -109.15   -27.86   -34.28   -39.67   -43.85
SO XBADJ    FPLWC2A    -46.70   -48.13   -48.09   -48.17   -46.96   -44.33
SO XBADJ    FPLWC2A    -40.34   -35.14   -28.86   -21.71   -13.89    -5.66
SO XBADJ    FPLWC2A     -3.88    -2.72    -1.48    -0.20     1.10     2.35
SO XBADJ    FPLWC2A      3.54     4.62     5.56     4.75     3.63     2.40
SO XBADJ    FPLWC2A      1.09    -0.25    -1.58    -2.87    -4.06    -5.14
SO YBADJ    FPLWC2A     12.40    -4.60    23.36    20.72    17.44    13.64
SO YBADJ    FPLWC2A      9.42     4.92     0.26    -4.40    -8.93   -13.19
SO YBADJ    FPLWC2A    -17.04   -20.38   -23.10   -25.12   -26.37   -26.83
SO YBADJ    FPLWC2A    -26.46   -25.30   -23.36   -20.72   -17.44   -13.64
SO YBADJ    FPLWC2A     -9.42    -4.92    -0.26     4.40     8.93    13.19
SO YBADJ    FPLWC2A     17.04    20.38    23.10    25.12    26.37    26.83


SO BUILDHGT FPLWC2B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDHGT FPLWC2B     31.39    31.39    31.39    31.39    31.39    31.39
SO BUILDWID FPLWC2B     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC2B     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC2B     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDWID FPLWC2B     43.42    43.33    41.93    39.26    35.39    30.44
SO BUILDWID FPLWC2B     24.57    17.96    10.80    16.56    23.30    29.34
SO BUILDWID FPLWC2B     34.48    38.57    41.50    43.16    43.51    42.54
SO BUILDLEN FPLWC2B     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC2B     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC2B     39.26    35.39    30.44    24.57    17.96    10.80
SO BUILDLEN FPLWC2B     16.56    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN FPLWC2B     43.16    43.51    42.54    43.42    43.33    41.93
SO BUILDLEN FPLWC2B     39.26    35.39    30.44    24.57    17.96    10.80
SO XBADJ    FPLWC2B    -13.05   -21.07   -28.45   -34.96   -40.42   -44.64
SO XBADJ    FPLWC2B    -47.51   -48.93   -48.87   -48.89   -47.61   -44.88
SO XBADJ    FPLWC2B    -40.78   -35.45  -108.87  -108.81    31.48   -98.87
SO XBADJ    FPLWC2B     -3.51    -2.23    -0.89     0.48     1.84     3.14
SO XBADJ    FPLWC2B      4.35     5.42     6.33     5.48     4.28     2.95
SO XBADJ    FPLWC2B      1.53     0.07    -1.40    -2.83    -4.16    -5.38
SO YBADJ    FPLWC2B     27.19    25.94    23.91    21.16    17.76    13.82
SO YBADJ    FPLWC2B      9.46     4.81     0.02    -4.77    -9.42   -13.78
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SO YBADJ	FPLWC2B	-17.72	-21.13	24.73	8.10	-35.61	-25.41
SO YBADJ	FPLWC2B	-27.19	-25.94	-23.91	-21.16	-17.76	-13.82
SO YBADJ	FPLWC2B	-9.46	-4.81	-0.02	4.77	9.42	13.78
SO YBADJ	FPLWC2B	17.72	21.13	23.89	25.93	27.18	27.60

SO BUILDHGT	FPLWC2C	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2C	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2C	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2C	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2C	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDHGT	FPLWC2C	31.39	31.39	31.39	31.39	31.39	31.39
SO BUILDWID	FPLWC2C	43.42	43.33	41.93	39.26	35.39	30.44
SO BUILDWID	FPLWC2C	24.57	17.96	10.80	16.56	23.30	29.34
SO BUILDWID	FPLWC2C	34.48	38.57	41.50	43.16	43.51	42.54
SO BUILDWID	FPLWC2C	43.42	43.33	41.93	39.26	35.39	30.44
SO BUILDWID	FPLWC2C	24.57	17.96	10.80	16.56	23.30	29.34
SO BUILDWID	FPLWC2C	34.48	38.57	41.50	43.16	43.51	42.54
SO BUILDLEN	FPLWC2C	16.56	23.30	29.34	34.48	38.57	41.50
SO BUILDLEN	FPLWC2C	43.16	43.51	42.54	43.42	43.33	41.93
SO BUILDLEN	FPLWC2C	39.26	35.39	30.44	24.57	17.96	10.80
SO BUILDLEN	FPLWC2C	16.56	23.30	29.34	34.48	38.57	41.50
SO BUILDLEN	FPLWC2C	43.16	43.51	42.54	43.42	43.33	41.93
SO BUILDLEN	FPLWC2C	39.26	35.39	30.44	24.57	17.96	10.80
SO XBADJ	FPLWC2C	32.05	-21.28	-28.55	-34.94	-40.28	-44.39
SO XBADJ	FPLWC2C	-47.15	-48.48	-48.34	-48.30	-46.97	-44.21
SO XBADJ	FPLWC2C	-40.11	-34.79	-68.07	-21.17	-13.29	-144.50
SO XBADJ	FPLWC2C	-48.62	-2.02	-0.79	0.46	1.70	2.89
SO XBADJ	FPLWC2C	3.99	4.97	5.80	4.88	3.63	2.28
SO XBADJ	FPLWC2C	0.85	-0.60	-2.03	-3.40	40.60	40.25
SO YBADJ	FPLWC2C	34.15	25.30	23.24	20.48	17.09	13.19
SO YBADJ	FPLWC2C	8.88	4.31	-0.40	-5.09	-9.63	-13.88
SO YBADJ	FPLWC2C	-17.70	-20.99	-0.24	-25.57	-26.73	-24.44
SO YBADJ	FPLWC2C	-34.15	-25.30	-23.24	-20.48	-17.09	-13.19
SO YBADJ	FPLWC2C	-8.88	-4.31	0.40	5.09	9.63	13.88
SO YBADJ	FPLWC2C	17.70	20.99	23.64	25.57	18.30	26.63

SO BUILDHGT	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDHGT	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDHGT	FULHEAT2	26.82	26.82	0.00	31.39	31.39	31.39
SO BUILDHGT	FULHEAT2	31.39	0.00	0.00	0.00	0.00	0.00
SO BUILDHGT	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDHGT	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID	FULHEAT2	26.64	27.47	0.00	43.16	43.51	42.54
SO BUILDWID	FULHEAT2	43.42	0.00	0.00	0.00	0.00	0.00
SO BUILDWID	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDLEN	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDLEN	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDLEN	FULHEAT2	27.47	26.64	0.00	24.57	17.96	10.80
SO BUILDLEN	FULHEAT2	16.56	0.00	0.00	0.00	0.00	0.00
SO BUILDLEN	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDLEN	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO XBADJ	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO XBADJ	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO XBADJ	FULHEAT2	-138.04	-137.67	0.00	-107.73	-152.83	-150.05
SO XBADJ	FULHEAT2	-149.33	0.00	0.00	0.00	0.00	0.00
SO XBADJ	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO XBADJ	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO YBADJ	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO YBADJ	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO YBADJ	FULHEAT2	11.17	-10.58	0.00	26.14	17.16	-8.08
SO YBADJ	FULHEAT2	-33.07	0.00	0.00	0.00	0.00	0.00
SO YBADJ	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00
SO YBADJ	FULHEAT2	0.00	0.00	0.00	0.00	0.00	0.00

SO BUILDHGT	FULHEAT1	31.39	0.00	0.00	0.00	0.00	0.00
SO BUILDHGT	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDHGT	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDHGT	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDHGT	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDHGT	FULHEAT1	0.00	0.00	0.00	0.00	31.39	31.39
SO BUILDWID	FULHEAT1	43.42	0.00	0.00	0.00	0.00	0.00
SO BUILDWID	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID	FULHEAT1	0.00	0.00	0.00	0.00	43.51	42.54
SO BUILDLEN	FULHEAT1	16.56	0.00	0.00	0.00	0.00	0.00
SO BUILDLEN	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDLEN	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDLEN	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDLEN	FULHEAT1	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDLEN	FULHEAT1	0.00	0.00	0.00	0.00	17.96	10.80
SO XBADJ	FULHEAT1	-151.52	0.00	0.00	0.00	0.00	0.00

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SO XBADJ    FULHEAT1    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT1    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT1    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT1    0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    FULHEAT1    0.00    0.00    0.00    0.00 -150.02 -149.73
SO YBADJ    FULHEAT1  -18.84    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT1    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT1    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT1    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT1    0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    FULHEAT1    0.00    0.00    0.00    0.00   31.29    6.32

SO BUILDHGT COOL1_01   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_01   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_01   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_01   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_01   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_01   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_01   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_01   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_01  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_01   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_01  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_01  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_01  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL1_01   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_01  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_01  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_01  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_01  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_01 -203.53 -169.03 -173.66  -99.86 -105.33 -107.60
SO XBADJ    COOL1_01 -106.60  -45.73  -10.31   -8.06   -9.29  -10.24
SO XBADJ    COOL1_01  -10.88  -11.19  -11.16  -10.79  -10.09   -9.08
SO XBADJ    COOL1_01  -12.38  -15.81  -18.76  -21.14  -22.88  -23.93
SO XBADJ    COOL1_01  -24.24  -23.82  -22.68  -54.32  -88.04 -119.09
SO XBADJ    COOL1_01 -146.51 -169.49 -187.32 -199.46 -205.53 -205.36
SO YBADJ    COOL1_01  -23.13   23.06   -4.62   26.93   12.18   -2.95
SO YBADJ    COOL1_01  -17.99  -97.72  -98.14  -95.57  -90.11  -81.90
SO YBADJ    COOL1_01  -71.21  -58.35  -43.72  -27.76  -10.95    6.18
SO YBADJ    COOL1_01   23.13   39.37   54.42   67.82   79.15   88.08
SO YBADJ    COOL1_01   94.33   97.72   98.14   95.57   90.11   81.90
SO YBADJ    COOL1_01   71.21   58.35   43.72   27.76   10.95   -6.18


SO BUILDHGT COOL1_02   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_02   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_02   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_02   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL1_02   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_02   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_02   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_02   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_02  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_02   62.37   97.33  129.33  157.39   35.39   30.44
SO BUILDWID COOL1_02  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_02  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_02  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL1_02   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_02  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_02  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL1_02  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_02  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_02 -186.99 -153.41 -159.45 -160.63  -95.16  -99.95
SO XBADJ    COOL1_02 -101.70 -100.36  -11.27  -11.95  -16.00  -19.56
SO XBADJ    COOL1_02  -22.52  -24.81  -26.33  -27.06  -26.97  -26.05
SO XBADJ    COOL1_02  -28.93  -31.43  -32.98  -33.53   56.58   58.45
SO XBADJ    COOL1_02  -29.14  -25.82  -21.72  -50.42  -81.33 -109.77
SO XBADJ    COOL1_02 -134.87 -155.88 -172.14 -183.18 -188.65 -188.39
SO YBADJ    COOL1_02  -19.24   29.77    4.70  -20.51   25.79   12.23
SO YBADJ    COOL1_02   -1.71  -15.60  -81.17  -79.03  -74.49  -67.68
SO YBADJ    COOL1_02  -58.82  -48.17  -36.06  -22.86   -8.95    5.22
SO YBADJ    COOL1_02   19.24   32.67   45.11   56.17  -25.79  -12.23
SO YBADJ    COOL1_02   78.06   80.84   81.17   79.03   74.49   67.68
SO YBADJ    COOL1_02   58.82   48.17   36.06   22.86    8.95   -5.22


SO BUILDHGT COOL1_03   14.94   31.39   31.39   31.39   14.94   31.39
SO BUILDHGT COOL1_03   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_03   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_03   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL1_03   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_03   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_03   62.37   43.33   41.93   39.26  180.68   30.44
SO BUILDWID COOL1_03   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_03  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_03   62.37   97.33  129.33  157.39  180.68   30.44
SO BUILDWID COOL1_03  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_03  184.70  162.46  135.28  104.00   69.55   32.99
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SO BUILDLEN COOL1_03  215.91   23.30   29.34   34.48  162.46   41.50
SO BUILDLEN COOL1_03   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_03  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_03  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL1_03  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_03  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_03 -171.17 -138.17 -145.23 -147.88 -118.50  -91.23
SO XBADJ    COOL1_03  -95.42  -96.72  -10.38  -13.83  -20.60  -26.74
SO XBADJ    COOL1_03  -32.06  -36.41  -39.66  -41.70  -42.47  -41.95
SO XBADJ    COOL1_03  -44.74  -46.68  -47.20  -46.28  -43.96   49.73
SO XBADJ    COOL1_03  -35.42  -29.46  -22.61  -48.54  -76.73 -102.59
SO XBADJ    COOL1_03 -125.33 -144.27 -158.82 -168.54 -173.15 -172.49
SO YBADJ    COOL1_03  -17.35   34.37   11.88  -10.97  -53.93   25.55
SO YBADJ    COOL1_03   12.93   -0.09  -65.27  -63.22  -59.24  -53.47
SO YBADJ    COOL1_03  -46.07  -37.27  -27.34  -16.58   -5.32    6.11
SO YBADJ    COOL1_03   17.35   28.07   37.93   46.64   53.93  -25.55
SO YBADJ    COOL1_03   63.42   65.34   65.27   63.22   59.24   53.47
SO YBADJ    COOL1_03   46.07   37.27   27.34   16.58    5.32   -6.11


SO BUILDHGT COOL1_04   14.94   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL1_04   14.94   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL1_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_04   62.37   43.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL1_04  210.24   17.96   10.80   16.56   23.30  201.33
SO BUILDWID COOL1_04  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_04   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_04  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_04  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_04  215.91   23.30   29.34   34.48   38.57  135.28
SO BUILDLEN COOL1_04  104.00   43.51   42.54   43.42   43.33  129.33
SO BUILDLEN COOL1_04  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_04  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_04  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_04  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_04 -154.34 -165.30 -130.33 -134.65 -134.87  -86.22
SO XBADJ    COOL1_04  -62.49  -93.49  -94.80  -94.81  -92.11  -35.01
SO XBADJ    COOL1_04  -42.80  -49.29  -54.28  -57.62  -59.20  -58.99
SO XBADJ    COOL1_04  -61.57  -62.79  -62.09  -59.51  -55.13  -49.06
SO XBADJ    COOL1_04  -41.51  -32.69  -22.89  -45.86  -71.16  -94.31
SO XBADJ    COOL1_04 -114.59 -131.39 -144.20 -152.63 -156.42 -155.45
SO YBADJ    COOL1_04  -14.67   24.19   20.15   -0.24  -20.62  -44.96
SO YBADJ    COOL1_04  -47.51   16.64    3.93   -8.90  -21.46  -38.57
SO YBADJ    COOL1_04  -32.84  -26.11  -18.58  -10.49   -2.08    6.39
SO YBADJ    COOL1_04   14.67   22.50   29.65   35.90   41.05   44.96
SO YBADJ    COOL1_04   47.51   48.61   48.23   46.39   43.13   38.57
SO YBADJ    COOL1_04   32.84   26.11   18.58   10.49    2.08   -6.39


SO BUILDHGT COOL1_05   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_05   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_05   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_05   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_05   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL1_05   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_05   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_05  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL1_05   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_05   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_05  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL1_05   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_05  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL1_05  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL1_05   39.26  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_05  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_05  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL1_05   39.26  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_05 -138.43 -149.85 -115.82 -121.50 -123.50 -121.74
SO XBADJ    COOL1_05  -55.64  -32.61   -8.59  -96.08  -96.12  -93.25
SO XBADJ    COOL1_05  -87.54  -60.49  -67.28  -72.03  -74.59  -74.89
SO XBADJ    COOL1_05  -77.48  -78.23  -76.61  -72.66  -66.50  -58.32
SO XBADJ    COOL1_05  -48.36  -36.94  -24.40  -44.58  -67.15   51.32
SO XBADJ    COOL1_05   48.28 -120.19 -131.20 -138.21 -141.03 -139.56
SO YBADJ    COOL1_05  -13.40   28.21   26.79    8.82   -9.42  -27.37
SO YBADJ    COOL1_05  -33.09  -33.22  -32.34    7.01   -6.01  -18.85
SO YBADJ    COOL1_05  -31.11  -14.73   -9.33   -3.64    2.16    7.90
SO YBADJ    COOL1_05   13.40   18.48   23.01   26.84   29.85   31.96
SO YBADJ    COOL1_05   33.09   33.22   32.34   30.48   27.69   18.85
SO YBADJ    COOL1_05   31.11   14.73    9.33    3.64   -2.16   -7.90


SO BUILDHGT COOL1_06   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_06   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL1_06   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_06   14.94   14.94   14.94   14.94   14.94   14.94
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SO BUILDHGT COOL1_06    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_06    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_06    62.37    43.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL1_06   210.24   215.62   214.45   215.91    23.30    29.34
SO BUILDWID COOL1_06    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL1_06    62.37    97.33   129.33   157.39   180.68   198.48
SO BUILDWID COOL1_06   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_06    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_06   215.91    23.30    29.34    34.48    38.57    41.50
SO BUILDLEN COOL1_06   104.00    69.55    32.99    62.37    43.33    41.93
SO BUILDLEN COOL1_06    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL1_06   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL1_06   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_06    39.26    35.39   198.48   210.24   215.62   214.45
SO XBADJ    COOL1_06 -122.51 -134.72 -101.93 -109.29 -113.33 -113.92
SO XBADJ    COOL1_06   -50.40   -30.13    -8.93   -20.94 -101.99 -101.66
SO XBADJ    COOL1_06   -98.23   -91.82   -81.51   -87.40   -90.63   -91.11
SO XBADJ    COOL1_06   -93.41   -93.37   -90.49   -84.87   -76.67   -66.14
SO XBADJ    COOL1_06   -53.59   -39.42   -24.06   -41.43   -61.28   -79.27
SO XBADJ    COOL1_06    58.98    56.44 -116.97 -122.84 -124.99 -123.33
SO YBADJ    COOL1_06   -10.24    34.08    35.20    19.51     3.23   -13.15
SO YBADJ    COOL1_06   -17.72   -17.18   -16.11   -14.55     9.13    -4.96
SO YBADJ    COOL1_06   -18.90   -32.26    -1.51     1.60     4.65     7.56
SO YBADJ    COOL1_06    10.24    12.61    14.60    16.15    17.20    17.73
SO YBADJ    COOL1_06    17.72    17.18    16.11    14.55    12.55    10.17
SO YBADJ    COOL1_06    18.90    32.26     1.51    -1.60    -4.65    -7.56

SO BUILDHGT COOL1_07    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL1_07    31.39    14.94    14.94    14.94    14.94    31.39
SO BUILDHGT COOL1_07    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_07    14.94    14.94    14.94    31.39    14.94    14.94
SO BUILDHGT COOL1_07    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_07    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_07    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL1_07    24.57   215.62   214.45   215.91   211.84    29.34
SO BUILDWID COOL1_07    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL1_07    62.37    97.33   129.33    39.26   180.68   198.48
SO BUILDWID COOL1_07   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_07   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_07   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL1_07    43.16    69.55    32.99    62.37    97.33    41.93
SO BUILDLEN COOL1_07    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL1_07   215.91   211.84   201.33    34.48   162.46   135.28
SO BUILDLEN COOL1_07   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_07   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL1_07 -106.12 -102.89 -127.49   -96.71 -102.85 -105.86
SO XBADJ    COOL1_07 -105.65   -27.55    -9.26   -24.17   -42.07 -110.29
SO XBADJ    COOL1_07 -109.22 -104.83   -96.14 -103.20 -107.14 -107.82
SO XBADJ    COOL1_07 -109.79 -108.95 -104.79    62.23   -87.15   -74.20
SO XBADJ    COOL1_07   -59.00   -42.00   -23.73   -38.20   -55.26   -70.63
SO XBADJ    COOL1_07   -83.86   -94.54 -102.34 -107.04 -108.48 -106.63
SO YBADJ    COOL1_07    -7.02    -6.59    20.83    30.50    16.24     1.48
SO YBADJ    COOL1_07   -13.32    -0.67     0.59     1.84     3.03     9.34
SO YBADJ    COOL1_07    -6.32   -21.78     6.56     7.00     7.22     7.23
SO YBADJ    COOL1_07     7.02     6.59     5.97   -30.50     4.19     3.10
SO YBADJ    COOL1_07     1.92     0.67    -0.59    -1.84    -3.03    -4.13
SO YBADJ    COOL1_07    -5.10    -5.92    -6.56    -7.00    -7.22    -7.23

SO BUILDHGT COOL1_08    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL1_08    31.39    31.39    14.94    14.94    14.94    31.39
SO BUILDHGT COOL1_08    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL1_08    14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL1_08    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_08    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_08    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL1_08    24.57    17.96   214.45   215.91   211.84    29.34
SO BUILDWID COOL1_08    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL1_08    62.37    97.33   129.33   157.39    35.39    30.44
SO BUILDWID COOL1_08   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_08   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_08   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL1_08    43.16    43.51    32.99    62.37    97.33    41.93
SO BUILDLEN COOL1_08    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL1_08   215.91   211.84   201.33   184.70    38.57    41.50
SO BUILDLEN COOL1_08   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_08   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL1_08   -89.00   -86.40 -112.12 -118.19   -91.09   -96.47
SO XBADJ    COOL1_08   -98.92   -98.36    -8.36   -26.27   -47.12 -118.12
SO XBADJ    COOL1_08 -119.60 -117.44 -111.71 -119.08 -123.94 -125.04
SO XBADJ    COOL1_08 -126.91 -125.44 -120.15 -111.22    52.51    54.97
SO XBADJ    COOL1_08   -65.73   -45.88   -24.63   -36.10   -50.21   -62.80
SO XBADJ    COOL1_08   -73.48   -81.92   -87.88   -91.17   -91.68   -89.41
SO YBADJ    COOL1_08    -4.91    -1.55    28.66    11.30    28.85    15.94
SO YBADJ    COOL1_08     2.55   -10.91    17.81    18.95    19.52    24.70
SO YBADJ    COOL1_08     7.45   -10.02   -27.19    13.73    11.10     8.13
SO YBADJ    COOL1_08     4.91     1.55    -1.86    -5.22   -28.85   -15.94
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SO YBADJ    COOL1_08  -13.96  -16.13  -17.81  -18.95  -19.52  -19.49
SO YBADJ    COOL1_08  -18.87  -17.68  -15.95  -13.73  -11.10   -8.13

SO BUILDHGT COOL1_09   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_09   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL1_09   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL1_09   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL1_09   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_09   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_09   62.37   97.33  129.33   39.26   35.39   30.44
SO BUILDWID COOL1_09   24.57   17.96   10.80  215.91  211.84  201.33
SO BUILDWID COOL1_09   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL1_09   62.37   97.33  129.33  157.39  180.68   30.44
SO BUILDWID COOL1_09  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_09  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_09  215.91  211.84  201.33   34.48   38.57   41.50
SO BUILDLEN COOL1_09   43.16   43.51   42.54   62.37   97.33  129.33
SO BUILDLEN COOL1_09   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL1_09  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL1_09  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_09  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_09  -73.68  -71.84  -67.82 -106.45 -110.89  -88.96
SO XBADJ    COOL1_09  -93.90  -95.99  -95.17  -29.33  -52.79  -74.64
SO XBADJ    COOL1_09 -129.91 -129.63 -125.41 -133.88 -139.38 -140.65
SO XBADJ    COOL1_09 -142.23 -140.00 -133.51 -122.96 -108.68   47.46
SO XBADJ    COOL1_09  -70.74  -48.24  -24.28  -33.04  -44.54  -54.69
SO XBADJ    COOL1_09  -63.17  -69.73  -74.18  -76.37  -76.24  -73.79
SO YBADJ    COOL1_09   -1.86    4.12    9.98   21.61    5.79   29.65
SO YBADJ    COOL1_09   17.35    4.53   -8.43   34.27   34.08   32.84
SO YBADJ    COOL1_09   19.19   -0.25  -19.68   18.75   13.47    7.78
SO YBADJ    COOL1_09    1.86   -4.12   -9.98  -15.53  -20.61  -29.65
SO YBADJ    COOL1_09  -28.75  -31.57  -33.43  -34.27  -34.08  -32.84
SO YBADJ    COOL1_09  -30.61  -27.45  -23.45  -18.75  -13.47   -7.78

SO BUILDHGT COOL1_10   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_10   31.39   14.94   31.39   31.39   31.39   14.94
SO BUILDHGT COOL1_10   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL1_10   14.94   14.94   14.94   31.39   31.39   14.94
SO BUILDHGT COOL1_10   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_10   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_10   62.37   97.33  129.33   39.26   35.39   30.44
SO BUILDWID COOL1_10   24.57  215.62   10.80   16.56   23.30  201.33
SO BUILDWID COOL1_10   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL1_10   62.37   97.33  129.33   39.26   35.39  198.48
SO BUILDWID COOL1_10  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_10  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_10  215.91  211.84  201.33   34.48   38.57   41.50
SO BUILDLEN COOL1_10   43.16   69.55   42.54   43.42   43.33  129.33
SO BUILDLEN COOL1_10   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL1_10  215.91  211.84  201.33   34.48   38.57  135.28
SO BUILDLEN COOL1_10  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_10  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_10  -57.36  -56.22  -53.37  -93.62 -100.06 -103.47
SO XBADJ    COOL1_10 -103.73  -18.16  -94.89  -95.61  -93.61  -82.66
SO XBADJ    COOL1_10 -140.31 -142.11 -139.58 -132.82 -155.60 -157.18
SO XBADJ    COOL1_10 -158.55 -155.62 -147.95   59.14   61.49  -99.60
SO XBADJ    COOL1_10  -76.66  -51.39  -24.56  -30.45  -39.15  -46.67
SO XBADJ    COOL1_10  -52.76  -57.26  -60.01  -60.94  -60.02  -57.27
SO YBADJ    COOL1_10    0.74    9.51   17.99   32.01   18.26    3.96
SO YBADJ    COOL1_10  -10.46   47.79    8.09   -4.82  -17.58   47.29
SO YBADJ    COOL1_10   32.03   10.59  -11.18  -32.60   16.61    8.06
SO YBADJ    COOL1_10   -0.74   -9.51  -17.99  -32.01  -18.26  -39.23
SO YBADJ    COOL1_10  -44.18  -47.79  -49.95  -50.59  -49.70  -47.29
SO YBADJ    COOL1_10  -43.45  -38.28  -31.96  -24.66  -16.61   -8.06

SO BUILDHGT COOL1_11   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL1_11   31.39   31.39   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_11   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL1_11   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL1_11   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL1_11   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_11   62.37   97.33  129.33  157.39   35.39   30.44
SO BUILDWID COOL1_11   24.57   17.96  214.45   16.56   23.30   29.34
SO BUILDWID COOL1_11   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL1_11   62.37   97.33  129.33  157.39   35.39   30.44
SO BUILDWID COOL1_11  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL1_11   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_11  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL1_11   43.16   43.51   32.99   43.42   43.33   41.93
SO BUILDLEN COOL1_11   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL1_11  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL1_11  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL1_11   39.26  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_11  -41.67  -41.20  -39.47  -36.55  -89.63  -95.28
SO XBADJ    COOL1_11  -98.03  -97.80   -8.15  -98.10  -98.78  -96.47
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SO XBADJ    COOL1_11  -91.22 -154.10 -153.20 -147.65 -171.20 -173.07
SO XBADJ    COOL1_11 -174.25 -170.64 -161.85 -148.15   51.06   53.78
SO XBADJ    COOL1_11  -82.36  -54.42  -24.84  -27.97  -33.98   54.54
SO XBADJ    COOL1_11   51.96  -45.26  -46.39  -46.10  -44.42  -41.38
SO YBADJ    COOL1_11    3.22   14.68   25.70   35.93   30.26   17.58
SO YBADJ    COOL1_11    4.37   -8.97   65.84   10.88   -2.55  -15.90
SO YBADJ    COOL1_11  -28.77   21.01   -2.99  -26.91   19.65    8.34
SO YBADJ    COOL1_11   -3.22  -14.68  -25.70  -35.93  -30.26  -17.58
SO YBADJ    COOL1_11  -59.02  -63.39  -65.84  -66.29  -64.72   15.90
SO YBADJ    COOL1_11   28.77  -48.71  -40.14  -30.36  -19.65   -8.34

SO BUILDHGT COOL1_12   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_12   31.39   31.39   31.39   14.94   31.39   31.39
SO BUILDHGT COOL1_12   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL1_12   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_12   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_12   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_12   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_12   24.57   17.96   10.80  215.91   23.30   29.34
SO BUILDWID COOL1_12   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL1_12   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_12   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_12   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_12  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_12   43.16   43.51   42.54   62.37   43.33   41.93
SO BUILDLEN COOL1_12   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL1_12  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_12   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_12   39.26   35.39  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_12  -25.18  -25.32  -24.68  -23.30  -21.20  -18.47
SO XBADJ    COOL1_12  -91.56  -94.09  -93.75  -36.45 -103.66 -104.03
SO XBADJ    COOL1_12 -101.23  -95.36 -167.15 -162.95 -187.39 -189.65
SO XBADJ    COOL1_12 -190.73 -186.52 -176.65 -161.40 -141.26 -116.82
SO XBADJ    COOL1_12   48.40  -58.14  -25.69  -25.92  -29.11  -31.41
SO XBADJ    COOL1_12   61.98   59.98  -32.45  -30.80  -28.23  -24.79
SO YBADJ    COOL1_12    5.26   19.56   33.26   45.95   57.24   66.79
SO YBADJ    COOL1_12   19.67    7.22   -5.45   82.78   13.33   -1.11
SO YBADJ    COOL1_12  -15.52  -29.45    6.04  -20.43   23.36    9.19
SO YBADJ    COOL1_12   -5.26  -19.56  -33.26  -45.95  -57.24  -66.79
SO YBADJ    COOL1_12  -19.67  -79.58  -82.43  -82.78  -80.60  -75.98
SO YBADJ    COOL1_12   15.52   29.45  -49.17  -36.83  -23.36   -9.19

SO BUILDHGT COOL1_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_13   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_13   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL1_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_13   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL1_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_13   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_13  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL1_13   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL1_13   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_13  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL1_13  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_13  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_13  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL1_13   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL1_13  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_13  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL1_13  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_13   -8.11   -9.19  -10.00  -10.50  -10.68  -10.53
SO XBADJ    COOL1_13  -10.07   -9.30   -8.24  -96.11  -94.79 -113.59
SO XBADJ    COOL1_13 -113.20 -109.37 -102.22 -179.72 -204.79 -207.15
SO XBADJ    COOL1_13 -207.80 -202.65 -191.33 -174.21 -151.79 -124.75
SO XBADJ    COOL1_13  -93.93  -60.25  -24.75  -21.96  -22.24   48.65
SO XBADJ    COOL1_13  -20.78  -19.09  -16.82  -14.04  -10.83   -7.29
SO YBADJ    COOL1_13    9.23   26.43   42.82   57.91   71.25   82.42
SO YBADJ    COOL1_13   91.08   96.98   99.93   -0.88  -13.79   13.58
SO YBADJ    COOL1_13   -2.71  -18.92  -34.56  -15.33   25.48    8.25
SO YBADJ    COOL1_13   -9.23  -26.43  -42.82  -57.91  -71.25  -82.42
SO YBADJ    COOL1_13  -91.08  -96.98  -99.93  -99.85  -96.73   26.28
SO YBADJ    COOL1_13  -81.86  -70.55  -57.11  -41.93  -25.48   -8.25

SO BUILDHGT COOL1_14   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL1_14   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_14   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL1_14   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_14  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_14   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_14  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_14  184.70  162.46  135.28  104.00   69.55   32.99
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SO BUILDLEN COOL1_14  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL1_14   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_14  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_14  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_14  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_14  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_14 -206.60 -201.79 -181.94 -183.55 -117.81 -121.65
SO XBADJ    COOL1_14 -121.78  -61.59  -26.36  -23.81  -24.27  -24.00
SO XBADJ    COOL1_14  -22.99  -21.28  -18.93  -16.00  -12.59   -8.79
SO XBADJ    COOL1_14   -9.31  -10.05  -10.49  -10.61  -10.40   -9.88
SO XBADJ    COOL1_14   -9.06   -7.96   -6.63  -38.56  -73.05 -105.33
SO XBADJ    COOL1_14 -134.41 -159.40 -179.55 -194.24 -203.03 -205.65
SO YBADJ    COOL1_14   -7.37  -24.39    9.14  -20.05   22.27    4.82
SO YBADJ    COOL1_14  -12.77  -95.22  -98.43  -98.65  -95.87  -90.18
SO YBADJ    COOL1_14  -81.74  -70.83  -57.76  -42.94  -26.81   -9.87
SO YBADJ    COOL1_14    7.37   24.39   40.67   55.71   69.06   80.31
SO YBADJ    COOL1_14   89.12   95.22   98.43   98.65   95.87   90.18
SO YBADJ    COOL1_14   81.74   70.83   57.76   42.94   26.81    9.87

SO BUILDHGT COOL1_15   14.94   14.94   31.39   31.39   14.94   31.39
SO BUILDHGT COOL1_15   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_15   62.37   97.33   41.93   39.26  180.68   30.44
SO BUILDWID COOL1_15   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_15  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_15   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_15  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_15  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_15  215.91  211.84   29.34   34.48  162.46   41.50
SO BUILDLEN COOL1_15   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_15  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_15  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_15  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_15  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_15 -189.86 -185.76 -167.12 -170.39 -140.95 -112.93
SO XBADJ    COOL1_15 -115.72 -115.00  -26.08  -26.48  -29.81  -32.23
SO XBADJ    COOL1_15  -33.67  -34.09  -33.47  -31.84  -29.23  -25.74
SO XBADJ    COOL1_15  -26.05  -26.08  -25.31  -23.77  -21.51  -18.60
SO XBADJ    COOL1_15  -15.12  -11.18   -6.91  -35.89  -67.52  -97.10
SO XBADJ    COOL1_15 -123.73 -146.59 -165.01 -178.41 -186.39 -188.70
SO YBADJ    COOL1_15   -4.71  -18.86   17.37   -9.37  -56.25   19.36
SO YBADJ    COOL1_15    3.06  -13.33  -81.48  -81.91  -79.84  -75.36
SO YBADJ    COOL1_15  -68.58  -59.72  -49.04  -36.88  -23.59   -9.59
SO YBADJ    COOL1_15    4.71   18.86   32.43   45.03   56.25   65.77
SO YBADJ    COOL1_15   73.29   78.58   81.48   81.91   79.84   75.36
SO YBADJ    COOL1_15   68.58   59.72   49.04   36.88   23.59    9.59

SO BUILDHGT COOL1_16   14.94   14.94   31.39   31.39   31.39   14.94
SO BUILDHGT COOL1_16   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_16   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_16   62.37   97.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL1_16   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_16  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_16   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_16  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_16  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_16  215.91  211.84   29.34   34.48   38.57  135.28
SO BUILDLEN COOL1_16   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_16  157.39  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_16  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_16  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_16  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_16 -173.70 -170.30 -152.82 -157.68 -157.76 -108.27
SO XBADJ    COOL1_16 -109.87 -111.89  -25.81  -29.06  -35.15  -40.17
SO XBADJ    COOL1_16  -43.98  -46.45  -47.50  -47.12  -45.30  -42.10
SO XBADJ    COOL1_16  -42.21  -41.54  -39.61  -36.48  -32.23  -27.01
SO XBADJ    COOL1_16  -20.97  -14.29   -7.18  -33.32  -62.18  -89.15
SO XBADJ    COOL1_16 -113.42 -134.23 -150.97 -163.13 -170.32 -172.34
SO YBADJ    COOL1_16   -2.13  -13.51   25.32    0.94  -23.46  -51.73
SO YBADJ    COOL1_16   18.34    2.73  -65.12  -65.75  -64.38  -61.05
SO YBADJ    COOL1_16  -55.87  -49.00  -40.63  -31.03  -20.49   -9.32
SO YBADJ    COOL1_16    2.13   13.51   24.49   34.72   43.89   51.73
SO YBADJ    COOL1_16   58.00   62.51   65.12   65.75   64.38   61.05
SO YBADJ    COOL1_16   55.87   49.00   40.63   31.03   20.49    9.32

SO BUILDHGT COOL1_17   14.94   14.94   31.39   31.39   31.39   14.94
SO BUILDHGT COOL1_17   14.94   14.94   31.39   31.39   14.94   14.94
SO BUILDHGT COOL1_17   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_17   14.94   14.94   14.94   14.94   14.94   14.94
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SO BUILDHGT COOL1_17    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_17    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_17    62.37    97.33    41.93    39.26    35.39   198.48
SO BUILDWID COOL1_17   210.24   215.62    10.80    16.56   211.84   201.33
SO BUILDWID COOL1_17   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDWID COOL1_17    62.37    97.33   129.33   157.39   180.68   198.48
SO BUILDWID COOL1_17   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_17   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_17   215.91   211.84    29.34    34.48    38.57   135.28
SO BUILDLEN COOL1_17   104.00    69.55    42.54    43.42    97.33   129.33
SO BUILDLEN COOL1_17   157.39   180.68   198.48   210.24   215.62   214.45
SO BUILDLEN COOL1_17   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL1_17   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_17   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL1_17 -157.17  -154.45  -138.13  -144.61  -146.70   -99.56
SO XBADJ    COOL1_17  -76.92   -51.95  -110.10  -109.84   -40.48   -48.18
SO XBADJ    COOL1_17  -54.41   -58.99   -61.78   -62.69   -61.69   -58.82
SO XBADJ    COOL1_17  -58.75   -57.39   -54.30   -49.55   -43.30   -35.73
SO XBADJ    COOL1_17  -27.07   -17.60    -7.59   -30.82   -56.85   -81.15
SO XBADJ    COOL1_17 -102.98  -121.69  -136.70  -147.55  -153.93  -155.62
SO YBADJ    COOL1_17     0.37    -8.18    33.32    11.38   -10.92   -37.46
SO YBADJ    COOL1_17   -42.43   -46.12     3.76   -11.72   -48.53   -46.37
SO YBADJ    COOL1_17   -42.80   -37.94   -31.92   -24.93   -17.18    -8.91
SO YBADJ    COOL1_17    -0.37     8.18    16.48    24.29    31.35    37.46
SO YBADJ    COOL1_17    42.43    46.12    48.40    49.21    48.53    46.37
SO YBADJ    COOL1_17    42.80    37.94    31.92    24.93    17.18     8.91


SO BUILDHGT COOL1_18    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL1_18    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL1_18    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_18    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_18    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_18    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_18    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL1_18   210.24   215.62   214.45    16.56    23.30    29.34
SO BUILDWID COOL1_18   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDWID COOL1_18    62.37    97.33   129.33   157.39   180.68   198.48
SO BUILDWID COOL1_18   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_18   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_18   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL1_18   104.00    69.55    32.99    43.42    43.33    41.93
SO BUILDLEN COOL1_18   157.39   180.68   198.48   210.24   215.62   214.45
SO BUILDLEN COOL1_18   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL1_18   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_18   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL1_18 -140.83  -138.92  -163.73  -132.08  -136.26  -136.30
SO XBADJ    COOL1_18  -71.55   -49.40   -25.74  -113.07  -112.44  -108.40
SO XBADJ    COOL1_18  -65.38   -71.96   -76.37   -78.45   -78.15   -75.47
SO XBADJ    COOL1_18  -75.08   -72.92   -68.54   -62.08   -53.74   -43.76
SO XBADJ    COOL1_18  -32.45   -20.15    -7.25   -27.59   -50.83   -72.53
SO XBADJ    COOL1_18  -92.02  -108.72  -122.11  -131.79  -137.47  -138.97
SO YBADJ    COOL1_18     3.60    -2.17    18.93    22.34     2.06   -18.29
SO YBADJ    COOL1_18   -26.67   -29.66   -31.75     4.62   -11.32   -26.91
SO YBADJ    COOL1_18   -30.27   -27.49   -23.88   -19.55   -14.62    -9.25
SO YBADJ    COOL1_18    -3.60     2.17     7.86    13.32    18.38    22.87
SO YBADJ    COOL1_18    26.67    29.66    31.75    32.87    33.00    32.12
SO YBADJ    COOL1_18    30.27    27.49    23.88    19.55    14.62     9.25


SO BUILDHGT COOL1_19    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL1_19    31.39    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL1_19    31.39    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_19    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_19    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_19    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_19    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL1_19    24.57   215.62   214.45   215.91    23.30    29.34
SO BUILDWID COOL1_19    34.48   162.46   135.28   104.00    69.55    32.99
SO BUILDWID COOL1_19    62.37    97.33   129.33   157.39   180.68   198.48
SO BUILDWID COOL1_19   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_19   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_19   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL1_19    43.16    69.55    32.99    62.37    43.33    41.93
SO BUILDLEN COOL1_19    39.26   180.68   198.48   210.24   215.62   214.45
SO BUILDLEN COOL1_19   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL1_19   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_19   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL1_19 -123.97  -122.67  -148.60  -118.51  -124.67  -127.04
SO XBADJ    COOL1_19 -125.55   -45.57   -24.84   -36.84  -117.40  -116.10
SO XBADJ    COOL1_19 -111.27   -84.38   -90.61   -94.08   -94.70   -92.43
SO XBADJ    COOL1_19  -91.94   -89.17   -83.68   -75.65   -65.33   -53.02
SO XBADJ    COOL1_19  -39.09   -23.98    -8.15   -25.53   -45.88   -64.83
SO XBADJ    COOL1_19  -81.81   -96.30  -107.87  -116.16  -120.92  -122.01
SO YBADJ    COOL1_19     5.65     2.79    26.63    32.55    14.47    -4.05
SO YBADJ    COOL1_19   -22.44   -13.11   -14.79   -16.01     4.93   -11.77
SO YBADJ    COOL1_19   -28.11   -15.90   -14.63   -12.90   -10.79    -8.35
SO YBADJ    COOL1_19    -5.65    -2.79     0.16     3.11     5.96     8.63
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SO YBADJ     COOL1_19    11.04    13.11    14.79    16.01    16.75    16.98
SO YBADJ     COOL1_19    16.70    15.90    14.63    12.90    10.79     8.35

SO BUILDHGT COOL1_20    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL1_20    31.39    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL1_20    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_20    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_20    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_20    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_20    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL1_20    24.57   215.62   214.45   215.91    23.30    29.34
SO BUILDWID COOL1_20    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL1_20    62.37    97.33   129.33   157.39   180.68   198.48
SO BUILDWID COOL1_20   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_20   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_20   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL1_20    43.16    69.55    32.99    62.37    43.33    41.93
SO BUILDLEN COOL1_20    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL1_20   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL1_20   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_20   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ     COOL1_20 -108.64  -108.10  -135.24  -142.01  -114.89  -119.53
SO XBADJ     COOL1_20 -120.54   -43.20   -25.19   -39.90  -123.07  -124.21
SO XBADJ     COOL1_20 -121.58  -115.26  -104.32  -108.89  -110.15  -108.06
SO XBADJ     COOL1_20 -107.27  -103.74   -97.04   -87.40   -75.11   -60.53
SO XBADJ     COOL1_20  -44.11   -26.35    -7.80   -22.47   -40.20   -56.71
SO XBADJ     COOL1_20  -71.49   -84.10   -94.16  -101.36  -105.47  -106.38
SO YBADJ     COOL1_20     8.71     8.46    34.75    13.29    26.67     9.66
SO YBADJ     COOL1_20    -7.64     2.34     0.84    -0.68    19.49     1.59
SO YBADJ     COOL1_20   -16.36   -33.82    -7.11    -7.89    -8.42    -8.70
SO YBADJ     COOL1_20    -8.71    -8.46    -7.95    -7.20    -6.24    -5.08
SO YBADJ     COOL1_20    -3.77    -2.34    -0.84     0.68     2.18     3.62
SO YBADJ     COOL1_20     4.95     6.12     7.11     7.89     8.42     8.70

SO BUILDHGT COOL1_21    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL1_21    31.39    31.39    14.94    14.94    14.94    31.39
SO BUILDHGT COOL1_21    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_21    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_21    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL1_21    24.57    17.96   214.45   215.91   211.84    29.34
SO BUILDWID COOL1_21    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL1_21    62.37    97.33   129.33   157.39   180.68   198.48
SO BUILDWID COOL1_21   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_21   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_21   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL1_21    43.16    43.51    32.99    62.37    97.33    41.93
SO BUILDLEN COOL1_21    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL1_21   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL1_21   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_21   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ     COOL1_21  -92.16   -92.21   -89.45  -128.68  -133.06  -110.38
SO XBADJ     COOL1_21 -113.93  -114.01   -24.18   -41.78   -61.84  -131.61
SO XBADJ     COOL1_21 -131.45  -127.29  -118.14  -124.09  -126.27  -124.61
SO XBADJ     COOL1_21 -123.75  -119.63  -111.88  -100.73   -86.52   -69.68
SO XBADJ     COOL1_21  -50.72   -30.22    -8.81   -20.59   -35.49   -49.31
SO XBADJ     COOL1_21  -61.63   -72.08   -80.33   -86.15   -89.35   -89.83
SO YBADJ     COOL1_21    10.59    13.17    15.35    23.15     3.45    23.49
SO YBADJ     COOL1_21     7.57    -8.58    17.39    15.79    13.71    16.43
SO YBADJ     COOL1_21    -3.04   -22.41     2.04    -1.28    -4.55    -7.69
SO YBADJ     COOL1_21   -10.59   -13.17   -15.35   -17.07   -18.27   -18.91
SO YBADJ     COOL1_21   -18.97   -18.46   -17.39   -15.79   -13.71   -11.22
SO YBADJ     COOL1_21    -8.38    -5.29    -2.04     1.28     4.55     7.69

SO BUILDHGT COOL1_22    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL1_22    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL1_22    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL1_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL1_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL1_22    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL1_22    24.57    17.96    10.80   215.91   211.84   201.33
SO BUILDWID COOL1_22    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL1_22    62.37    97.33   129.33   157.39   180.68   198.48
SO BUILDWID COOL1_22   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL1_22   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL1_22   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL1_22    43.16    43.51    42.54    62.37    97.33   129.33
SO BUILDLEN COOL1_22    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL1_22   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL1_22   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL1_22   157.39   180.68   198.48   210.24   215.62   214.45
SO XBADJ     COOL1_22  -76.44   -77.15   -75.52  -116.31  -122.61  -125.18
SO XBADJ     COOL1_22 -108.22  -110.97  -110.35   -44.27   -67.02   -87.74
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SO XBADJ     COOL1_22 -141.47 -139.30 -132.91 -138.96 -141.90 -140.54
SO XBADJ     COOL1_22 -139.48 -134.69 -125.81 -113.11  -96.97  -77.88
SO XBADJ     COOL1_22  -56.43  -33.26   -9.09  -18.11  -30.31  -41.59
SO XBADJ     COOL1_22  -51.61  -60.06  -66.69  -71.29  -73.72  -73.91
SO YBADJ     COOL1_22   13.08   18.36   23.07   33.17   15.46   -2.71
SO YBADJ     COOL1_22   22.43    7.05   -8.55   31.52   28.77   25.14
SO YBADJ     COOL1_22    9.34  -11.96  -32.90    4.43   -1.51   -7.41
SO YBADJ     COOL1_22  -13.08  -18.36  -23.07  -27.09  -30.28  -32.55
SO YBADJ     COOL1_22  -33.84  -34.09  -33.31  -31.52  -28.77  -25.14
SO YBADJ     COOL1_22  -20.76  -15.74  -10.24   -4.43    1.51    7.41

SO BUILDHGT COOL1_23   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL1_23   31.39   14.94   31.39   31.39   31.39   14.94
SO BUILDHGT COOL1_23   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL1_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_23   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_23   62.37   97.33  129.33  157.39   35.39   30.44
SO BUILDWID COOL1_23   24.57  215.62   10.80   16.56   23.30  201.33
SO BUILDWID COOL1_23   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL1_23   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_23  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_23  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_23  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL1_23   43.16   69.55   42.54   43.42   43.33  129.33
SO BUILDLEN COOL1_23   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL1_23  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_23  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_23  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_23  -58.98  -60.46  -60.10  -57.92 -111.09 -116.18
SO XBADJ    COOL1_23 -117.73  -33.04 -110.18 -110.85 -108.34  -96.43
SO XBADJ    COOL1_23 -152.71 -152.75 -148.14 -155.53 -159.30 -158.24
SO XBADJ    COOL1_23 -156.94 -151.38 -141.23 -126.78 -108.48  -86.89
SO XBADJ    COOL1_23  -62.65  -36.51   -9.27  -15.21  -24.42  -32.90
SO XBADJ    COOL1_23  -40.37  -46.62  -51.45  -54.71  -56.32  -56.21
SO YBADJ    COOL1_23   15.98   24.24   31.77   38.33   28.91   12.52
SO YBADJ    COOL1_23   -4.24   51.49    9.15   -6.43  -21.81   40.56
SO YBADJ    COOL1_23   23.01   -0.45  -23.89   10.65    1.74   -7.23
SO YBADJ    COOL1_23  -15.98  -24.24  -31.77  -38.33  -43.72  -47.79
SO YBADJ    COOL1_23  -50.41  -51.49  -51.01  -48.98  -45.46  -40.56
SO YBADJ    COOL1_23  -34.43  -27.25  -19.24  -10.65   -1.74    7.23


SO BUILDHGT COOL1_24   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL1_24   31.39   31.39   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_24   14.94   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL1_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_24   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_24   62.37   97.33  129.33  157.39  180.68   30.44
SO BUILDWID COOL1_24   24.57   17.96  214.45   16.56   23.30   29.34
SO BUILDWID COOL1_24  184.70   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL1_24   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_24  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_24  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_24  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL1_24   43.16   43.51   32.99   43.42   43.33   41.93
SO BUILDLEN COOL1_24  157.39   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL1_24  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_24  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_24  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_24  -44.36  -46.41  -47.06  -46.27  -44.08 -108.32
SO XBADJ    COOL1_24 -112.17 -112.60  -23.16 -112.86 -112.86 -109.42
SO XBADJ    COOL1_24 -126.07 -163.68 -160.63 -169.19 -173.72 -172.98
SO XBADJ    COOL1_24 -171.55 -165.42 -154.27 -138.43 -118.39  -94.74
SO XBADJ    COOL1_24  -68.22  -39.62   -9.83  -13.20  -19.91  -26.01
SO XBADJ    COOL1_24  -31.32  -35.69  -38.96  -41.05  -41.90  -41.47
SO YBADJ    COOL1_24   17.99   28.76   38.65   47.37   54.66   25.01
SO YBADJ    COOL1_24    9.42   -6.45   65.75    8.18   -7.77  -23.49
SO YBADJ    COOL1_24   46.08    9.46  -16.04   16.22    4.85   -6.67
SO YBADJ    COOL1_24  -17.99  -28.76  -38.65  -47.37  -54.66  -60.28
SO YBADJ    COOL1_24  -64.07  -65.91  -65.75  -63.59  -59.51  -53.61
SO YBADJ    COOL1_24  -46.08  -37.16  -27.10  -16.22   -4.85    6.67


SO BUILDHGT COOL1_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_25   14.94   31.39   31.39   14.94   31.39   31.39
SO BUILDHGT COOL1_25   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL1_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_25   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_25   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_25  210.24   17.96   10.80  215.91   23.30   29.34
SO BUILDWID COOL1_25   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL1_25   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_25  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_25  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_25  215.91  211.84  201.33  184.70  162.46  135.28
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SO BUILDLEN COOL1_25  104.00   43.51   42.54   62.37   43.33   41.93
SO BUILDLEN COOL1_25   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL1_25  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_25  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_25  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_25  -27.79  -30.54  -32.36  -33.20  -33.03  -31.85
SO XBADJ    COOL1_25  -29.71 -109.34 -109.25  -51.73 -118.25 -117.49
SO XBADJ    COOL1_25 -113.16 -176.28 -174.96 -168.33 -190.16 -189.74
SO XBADJ    COOL1_25 -188.12 -181.30 -168.97 -151.50 -129.43 -103.43
SO XBADJ    COOL1_25  -74.29  -42.89  -10.19  -10.65  -14.51  -17.94
SO XBADJ    COOL1_25  -20.83  -23.08  -24.63  -25.43  -25.46  -24.71
SO YBADJ    COOL1_25   20.54   34.15   46.72   57.87   67.26   74.61
SO YBADJ    COOL1_25   79.69    9.99   -5.37   80.16    8.10   -8.79
SO YBADJ    COOL1_25  -25.42   20.51   -7.34  -34.97    8.11   -6.31
SO YBADJ    COOL1_25  -20.54  -34.15  -46.72  -57.87  -67.26  -74.61
SO YBADJ    COOL1_25  -79.69  -82.35  -82.51  -80.16  -75.38  -68.30
SO YBADJ    COOL1_25  -59.15  -48.20  -35.79  -22.29   -8.11    6.31


SO BUILDHGT COOL1_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_26   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL1_26   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL1_26   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL1_26   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_26  210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL1_26   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL1_26   62.37   97.33  129.33  157.39  180.68  198.48
SO BUILDWID COOL1_26  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL1_26  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL1_26  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_26  104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL1_26   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL1_26  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL1_26  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL1_26  157.39  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL1_26  -10.82  -14.25  -17.24  -19.72  -21.59  -22.80
SO XBADJ    COOL1_26  -23.33  -23.14  -22.25 -109.86 -107.86 -125.58
SO XBADJ    COOL1_26 -123.75 -118.17 -188.42 -200.73 -206.95 -206.88
SO XBADJ    COOL1_26 -205.09 -197.59 -184.09 -164.99 -140.87 -112.48
SO XBADJ    COOL1_26  -80.67  -46.41  -10.74   -8.21   -9.17   -9.85
SO XBADJ    COOL1_26  -10.23  -10.30  -10.06   -9.51   -8.67   -7.57
SO YBADJ    COOL1_26   22.98   39.49   54.81   68.47   80.04   89.18
SO YBADJ    COOL1_26   95.61   99.14   99.65   -3.59  -18.84    6.33
SO YBADJ    COOL1_26  -11.93  -29.83   44.84   28.67   11.63   -5.76
SO YBADJ    COOL1_26  -22.98  -39.49  -54.81  -68.47  -80.04  -89.18
SO YBADJ    COOL1_26  -95.61  -99.14  -99.65  -97.14  -91.67  -83.42
SO YBADJ    COOL1_26  -72.64  -59.64  -44.84  -28.67  -11.63    5.76

SO BUILDHGT COOL2_01   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_01   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_01   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_01   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_01   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_01   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_01   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_01   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_01  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_01   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_01  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_01  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_01  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_01   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_01  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_01  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_01  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_01  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_01 -203.22 -170.94  -92.77 -100.35 -104.88 -106.22
SO XBADJ    COOL2_01 -104.33  -44.68   -9.27   -7.05   -8.35   -9.40
SO XBADJ    COOL2_01  -10.16  -10.62  -10.75  -10.55  -10.04   -9.21
SO XBADJ    COOL2_01  -12.69  -16.29  -19.40  -21.91  -23.76  -24.89
SO XBADJ    COOL2_01  -25.27  -24.87  -23.72  -55.32  -88.97 -119.92
SO XBADJ    COOL2_01 -147.23 -170.06 -187.73 -199.69 -205.59 -205.23
SO YBADJ    COOL2_01  -24.13   18.78   35.66   21.56    6.80   -8.17
SO YBADJ    COOL2_01  -22.89  -97.77  -98.01  -95.27  -89.63  -81.27
SO YBADJ    COOL2_01  -70.44  -57.47  -42.75  -26.73   -9.91    7.22
SO YBADJ    COOL2_01   24.13   40.31   55.26   68.53   79.72   88.49
SO YBADJ    COOL2_01   94.57   97.77   98.01   95.27   89.63   81.27
SO YBADJ    COOL2_01   70.44   57.47   42.75   26.73    9.91   -7.22


SO BUILDHGT COOL2_02   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_02   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_02   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_02   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL2_02   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_02   14.94   14.94   14.94   14.94   14.94   14.94
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SO BUILDWID COOL2_02   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_02   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_02  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_02   62.37   97.33  129.33   39.26   35.39   30.44
SO BUILDWID COOL2_02  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_02  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_02  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_02   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_02  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_02  215.91  211.84  201.33   34.48   38.57   41.50
SO BUILDLEN COOL2_02  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_02  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_02 -185.80 -154.35 -159.55 -159.89  -93.63  -97.52
SO XBADJ    COOL2_02  -98.45  -41.79   -9.46  -10.32  -14.59  -18.43
SO XBADJ    COOL2_02  -21.70  -24.31  -26.19  -27.27  -27.52  -26.93
SO XBADJ    COOL2_02  -30.11  -32.88  -34.65   52.42   55.06   56.03
SO XBADJ    COOL2_02  -31.15  -27.76  -23.53  -52.06  -82.73 -110.90
SO XBADJ    COOL2_02 -135.69 -156.37 -172.29 -182.97 -188.10 -187.51
SO YBADJ    COOL2_02  -20.87   25.02   -0.14  -25.29   20.49    7.27
SO YBADJ    COOL2_02   -6.17  -80.29  -80.29  -77.85  -73.04  -66.02
SO YBADJ    COOL2_02  -56.98  -46.22  -34.05  -20.85   -7.02    7.03
SO YBADJ    COOL2_02   20.87   34.07   46.24  -33.09  -20.49   -7.27
SO YBADJ    COOL2_02   77.85   80.29   80.29   77.85   73.04   66.02
SO YBADJ    COOL2_02   56.98   46.22   34.05   20.85    7.02   -7.03


SO BUILDHGT COOL2_03   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_03   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_03   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_03   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_03   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_03   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_03   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_03   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_03  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_03   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL2_03  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_03  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_03  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_03   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_03  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_03  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL2_03  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_03  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_03 -170.52 -139.80 -146.17 -148.10  -83.78  -89.90
SO XBADJ    COOL2_03  -93.30  -93.86   -9.64  -13.19  -20.08  -26.36
SO XBADJ    COOL2_03  -31.83  -36.34  -39.75  -41.94  -42.87  -42.48
SO XBADJ    COOL2_03  -45.39  -47.43  -48.03  -47.16   45.20   48.41
SO XBADJ    COOL2_03  -36.30  -30.28  -23.35  -49.18  -77.25 -102.97
SO XBADJ    COOL2_03 -125.56 -144.34 -158.73 -168.30 -172.76 -171.96
SO YBADJ    COOL2_03  -17.99   30.51    7.79  -15.16   32.52   20.83
SO YBADJ    COOL2_03    8.50   -4.08  -64.74  -62.57  -58.49  -52.64
SO YBADJ    COOL2_03  -45.19  -36.36  -26.43  -15.70   -4.49    6.85
SO YBADJ    COOL2_03   17.99   28.58   38.31   46.86  -32.52  -20.83
SO YBADJ    COOL2_03   63.18   64.95   64.74   62.57   58.49   52.64
SO YBADJ    COOL2_03   45.19   36.36   26.43   15.70    4.49   -6.85


SO BUILDHGT COOL2_04   14.94   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL2_04   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL2_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_04   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_04   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_04   62.37   43.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL2_04   24.57   17.96   10.80   16.56  211.84  201.33
SO BUILDWID COOL2_04  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_04   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_04   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_04  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_04  215.91   23.30   29.34   34.48   38.57  135.28
SO BUILDLEN COOL2_04   43.16   43.51   42.54   43.42   97.33  129.33
SO BUILDLEN COOL2_04  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_04  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_04   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_04  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_04 -155.26 -125.19 -132.66 -136.09 -135.39  -86.12
SO XBADJ    COOL2_04  -87.76  -90.92  -91.30  -90.49  -25.11  -33.85
SO XBADJ    COOL2_04  -41.56  -48.00  -52.99  -56.37  -58.03  -57.93
SO XBADJ    COOL2_04  -60.65  -62.04  -61.54  -59.17  -55.00  -49.17
SO XBADJ    COOL2_04   44.61  -33.23  -23.62  -46.76  -72.22  -95.48
SO XBADJ    COOL2_04 -115.84 -132.68 -145.49 -153.88 -157.59 -156.51
SO YBADJ    COOL2_04  -15.57   35.54   15.28   -5.44  -25.99  -46.25
SO YBADJ    COOL2_04   22.93   11.09   -1.09  -13.23  -43.88  -39.12
SO YBADJ    COOL2_04  -33.18  -26.23  -18.48  -10.16   -1.54    7.12
SO YBADJ    COOL2_04   15.57   23.55   30.81   37.14   42.34   46.25
SO YBADJ    COOL2_04  -22.93   49.78   49.29   47.30   43.88   39.12
SO YBADJ    COOL2_04   33.18   26.23   18.48   10.16    1.54   -7.12
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SO BUILDHGT COOL2_05    14.94   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL2_05    14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL2_05    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_05    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_05    14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_05    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_05    62.37   43.33   41.93   39.26   35.39  198.48
SO BUILDWID COOL2_05   210.24  215.62  214.45   16.56   23.30   29.34
SO BUILDWID COOL2_05   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_05    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_05   210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL2_05   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_05   215.91   23.30   29.34   34.48   38.57  135.28
SO BUILDLEN COOL2_05   104.00   69.55   32.99   43.42   43.33   41.93
SO BUILDLEN COOL2_05   157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_05   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_05   104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL2_05   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_05 -139.54 -153.65 -118.89 -123.95 -125.25  -78.28
SO XBADJ    COOL2_05  -56.87  -33.73   -9.56  -93.46  -92.76  -89.24
SO XBADJ    COOL2_05  -51.99  -60.38  -66.94  -71.47  -73.82  -73.93
SO XBADJ    COOL2_05  -76.38  -77.01  -75.30  -71.31  -65.14  -57.00
SO XBADJ    COOL2_05  -47.13  -35.82  -23.43  -43.80  -66.57   47.31
SO XBADJ    COOL2_05 -105.41 -120.30 -131.54 -138.78 -141.80 -140.51
SO YBADJ    COOL2_05  -12.61   25.85   23.45    4.99  -13.61  -32.30
SO YBADJ    COOL2_05  -33.65  -33.99  -33.29    2.49  -10.01  -22.20
SO YBADJ    COOL2_05  -21.04  -16.09  -10.64   -4.87    1.05    6.93
SO YBADJ    COOL2_05   12.61   17.90   22.65   26.71   29.96   32.30
SO YBADJ    COOL2_05   33.65   33.99   33.29   31.58   28.91   22.20
SO YBADJ    COOL2_05   21.04   16.09   10.64    4.87   -1.05   -6.93

SO BUILDHGT COOL2_06    14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_06    14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_06    31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_06    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_06    14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_06    31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_06    62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_06   210.24  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL2_06    34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_06    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_06   210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL2_06    34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_06   215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_06   104.00   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL2_06    39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_06   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_06   104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL2_06    39.26   35.39  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_06 -122.15 -137.01 -103.51 -110.29 -113.72 -113.69
SO XBADJ    COOL2_06  -50.59  -30.40   -9.28  -21.36  -98.51  -97.80
SO XBADJ    COOL2_06  -94.11  -87.56  -82.05  -87.91  -91.11  -91.54
SO XBADJ    COOL2_06  -93.76  -93.64  -90.68  -84.97  -76.67  -66.04
SO XBADJ    COOL2_06  -53.41  -39.15  -23.71  -41.02  -60.81   55.86
SO XBADJ    COOL2_06   54.85   52.17 -116.43 -122.33 -124.51 -122.91
SO YBADJ    COOL2_06   -9.83   31.61   32.01   16.09   -0.31  -16.70
SO YBADJ    COOL2_06  -17.21  -16.70  -15.69  -14.20    6.63   -6.82
SO YBADJ    COOL2_06  -20.06  -32.68   -1.60    1.41    4.38    7.21
SO YBADJ    COOL2_06    9.83   12.14   14.09   15.61   16.66   17.19
SO YBADJ    COOL2_06   17.21   16.70   15.69   14.20   12.28    6.82
SO YBADJ    COOL2_06   20.06   32.68    1.60   -1.41   -4.38   -7.21

SO BUILDHGT COOL2_07    14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_07    31.39   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_07    31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL2_07    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_07    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_07    14.94   14.94   31.39   14.94   14.94   14.94
SO BUILDWID COOL2_07    62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_07    24.57  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL2_07    34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL2_07    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_07   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_07   184.70  162.46   41.50  104.00   69.55   32.99
SO BUILDLEN COOL2_07   215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_07    43.16   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL2_07    39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL2_07   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_07   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_07   157.40  180.68   30.44  210.24  215.62  214.45
SO XBADJ    COOL2_07 -106.16 -121.70 -129.45  -97.71 -103.10 -105.35
SO XBADJ    COOL2_07 -104.41  -27.31   -9.00  -23.89 -103.79 -105.65
SO XBADJ    COOL2_07 -104.30  -99.78  -92.23 -103.03 -107.00 -107.73
SO XBADJ    COOL2_07 -109.75 -108.95 -104.84  -97.55  -87.29  -74.38
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SO XBADJ    COOL2_07  -59.21  -42.24  -23.99  -38.48  -55.53  -70.90
SO XBADJ    COOL2_07  -84.12  -94.77   61.79 -107.21 -108.62 -106.72
SO YBADJ    COOL2_07   -7.29   36.88   17.21   26.28   11.91   -2.82
SO YBADJ    COOL2_07  -17.47   -0.81    0.50    1.79   21.94    7.34
SO YBADJ    COOL2_07   -7.47  -22.06  -35.98    7.21    7.47    7.49
SO YBADJ    COOL2_07    7.29    6.87    6.24    5.42    4.43    3.31
SO YBADJ    COOL2_07    2.09    0.81   -0.50   -1.79   -3.03   -4.18
SO YBADJ    COOL2_07   -5.20   -6.06  -35.98   -7.21   -7.47   -7.49


SO BUILDHGT COOL2_08   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_08   31.39   31.39   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_08   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL2_08   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_08   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_08   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_08   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_08   24.57   17.96  214.45  215.91  211.84   29.34
SO BUILDWID COOL2_08   34.48   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL2_08   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL2_08  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_08  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_08  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_08   43.16   43.51   32.99   62.37   97.33   41.93
SO BUILDLEN COOL2_08   39.26   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL2_08  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL2_08  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_08  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_08  -87.94  -85.45 -113.33 -118.95  -91.02  -95.89
SO XBADJ    COOL2_08  -97.84  -96.81   -8.72  -26.82  -47.84 -114.63
SO XBADJ    COOL2_08 -115.94 -113.73 -108.07 -120.27 -125.12 -126.17
SO XBADJ    COOL2_08 -127.97 -126.39 -120.96 -111.86   52.45   54.39
SO XBADJ    COOL2_08  -65.78  -45.72  -24.27  -35.55  -49.49  -61.92
SO XBADJ    COOL2_08  -72.47  -80.82  -86.71  -89.97  -90.50  -88.27
SO YBADJ    COOL2_08   -4.37   -0.82   26.20    8.67   25.87   13.02
SO YBADJ    COOL2_08   -0.23  -13.47   18.95   20.01   20.47   23.46
SO YBADJ    COOL2_08    6.84   -9.99  -26.51   13.79   10.95    7.77
SO YBADJ    COOL2_08    4.37    0.82   -2.74   -6.23  -25.87  -13.02
SO YBADJ    COOL2_08  -15.15  -17.31  -18.95  -20.01  -20.47  -20.30
SO YBADJ    COOL2_08  -19.51  -18.14  -16.21  -13.79  -10.95   -7.77


SO BUILDHGT COOL2_09   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_09   31.39   31.39   31.39   14.94   14.94   14.94
SO BUILDHGT COOL2_09   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL2_09   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_09   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_09   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_09   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_09   24.57   17.96   10.80  215.91  211.84  201.33
SO BUILDWID COOL2_09   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL2_09   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL2_09  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_09  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_09  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_09   43.16   43.51   42.54   62.37   97.33  129.33
SO BUILDLEN COOL2_09   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL2_09  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL2_09  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_09  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_09  -72.02  -70.30  -99.40 -106.67 -110.70  -87.96
SO XBADJ    COOL2_09  -92.48  -94.20  -93.05  -29.83  -53.57  -75.68
SO XBADJ    COOL2_09 -126.51 -126.27 -122.20 -114.41 -141.11 -142.38
SO XBADJ    COOL2_09 -143.89 -141.54 -134.89 -124.15 -109.63   46.46
SO XBADJ    COOL2_09  -71.14  -48.34  -24.07  -32.54  -43.76  -53.65
SO XBADJ    COOL2_09  -61.91  -68.28  -72.58  -74.68  -74.51  -72.07
SO YBADJ    COOL2_09   -1.36    4.91   34.47   19.23    3.41   27.15
SO YBADJ    COOL2_09   15.06    2.52  -10.10   35.93   35.62   34.23
SO YBADJ    COOL2_09   19.12    0.27  -18.59  -36.88   13.56    7.57
SO YBADJ    COOL2_09    1.36   -4.91  -11.02  -16.79  -22.06  -27.15
SO YBADJ    COOL2_09  -30.44  -33.30  -35.15  -35.93  -35.62  -34.23
SO YBADJ    COOL2_09  -31.80  -28.40  -24.13  -19.14  -13.56   -7.57


SO BUILDHGT COOL2_10   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL2_10   31.39   31.39   31.39   31.39   31.39   14.94
SO BUILDHGT COOL2_10   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL2_10   14.94   14.94   14.94   31.39   31.39   14.94
SO BUILDHGT COOL2_10   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_10   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_10   62.37   97.33  129.33   39.26   35.39   30.44
SO BUILDWID COOL2_10   24.57   17.96   10.80   16.56   23.30  201.33
SO BUILDWID COOL2_10   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL2_10   62.37   97.33  129.33   39.26   35.39  198.48
SO BUILDWID COOL2_10  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_10  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_10  215.91  211.84  201.33   34.48   38.57   41.50
SO BUILDLEN COOL2_10   43.16   43.51   42.54   43.42   43.33  129.33
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SO BUILDLEN COOL2_10   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL2_10  215.91  211.84  201.33   34.48   38.57  135.28
SO BUILDLEN COOL2_10  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_10  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_10  -57.05  -55.88  -53.01  -94.65 -100.44 -103.18
SO XBADJ    COOL2_10 -102.79  -90.84  -92.30  -92.52  -90.11  -82.57
SO XBADJ    COOL2_10 -135.62 -137.33 -134.87 -128.32 -155.82 -157.45
SO XBADJ    COOL2_10 -158.86 -155.96 -148.32   60.17   61.87  -99.96
SO XBADJ    COOL2_10  -77.00  -51.69  -24.82  -30.66  -39.31  -46.76
SO XBADJ    COOL2_10  -52.79  -57.22  -59.91  -60.78  -59.80  -57.00
SO YBADJ    COOL2_10    0.52    9.35   17.90   28.34   14.47    0.16
SO YBADJ    COOL2_10  -14.16   17.23    4.97   -7.44  -19.62   47.65
SO YBADJ    COOL2_10   31.15   10.53  -10.40  -31.02   16.92    8.32
SO YBADJ    COOL2_10   -0.52   -9.35  -17.90  -28.34  -14.47  -39.33
SO YBADJ    COOL2_10  -44.35  -48.01  -50.22  -50.90  -50.04  -47.65
SO YBADJ    COOL2_10  -43.82  -38.66  -32.32  -25.00  -16.92   -8.32

SO BUILDHGT COOL2_11   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_11   31.39   31.39   14.94   31.39   31.39   31.39
SO BUILDHGT COOL2_11   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL2_11   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_11   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_11   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_11   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL2_11   24.57   17.96  214.45   16.56   23.30   29.34
SO BUILDWID COOL2_11   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL2_11   62.37   97.33  129.33  157.40   35.39   30.44
SO BUILDWID COOL2_11  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL2_11   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_11  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL2_11   43.16   43.51   32.99   43.42   43.33   41.93
SO BUILDLEN COOL2_11   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL2_11  215.91  211.84  201.33  184.70   38.57   41.50
SO BUILDLEN COOL2_11  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL2_11   39.26  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_11  -40.95  -40.63  -39.08  -36.34  -90.36  -95.52
SO XBADJ    COOL2_11  -97.77  -97.06   -8.83  -96.03  -96.37  -93.77
SO XBADJ    COOL2_11  -88.33 -150.38 -149.47 -144.02 -172.16 -173.91
SO XBADJ    COOL2_11 -174.96 -171.21 -162.25 -148.36   51.78   54.02
SO XBADJ    COOL2_11  -82.01  -53.90  -24.16  -27.15  -33.06   51.84
SO XBADJ    COOL2_11   49.07  -44.18  -45.32  -45.07  -43.46  -40.53
SO YBADJ    COOL2_11    4.03   15.61   26.71   37.00   27.51   14.75
SO YBADJ    COOL2_11    1.55  -11.71   66.69    8.67   -4.37  -17.28
SO YBADJ    COOL2_11  -29.66   20.61   -2.74  -26.01   19.13    7.66
SO YBADJ    COOL2_11   -4.03  -15.61  -26.71  -37.00  -27.51  -14.75
SO YBADJ    COOL2_11  -60.05  -64.35  -66.69  -67.01  -65.29   17.28
SO YBADJ    COOL2_11   29.66  -48.74  -39.98  -30.01  -19.13   -7.66

SO BUILDHGT COOL2_12   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_12   31.39   31.39   31.39   14.94   31.39   31.39
SO BUILDHGT COOL2_12   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL2_12   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_12   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_12   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_12   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL2_12   24.57   17.96   10.80  215.91   23.30   29.34
SO BUILDWID COOL2_12   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL2_12   62.37   97.33  129.33  157.40  180.68   30.44
SO BUILDWID COOL2_12  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_12   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_12  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL2_12   43.16   43.51   42.54   62.37   43.33   41.93
SO BUILDLEN COOL2_12   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL2_12  215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL2_12  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_12   39.26   35.39  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_12  -25.18  -25.64  -25.32  -24.23  -22.41  -87.76
SO XBADJ    COOL2_12  -92.58  -94.58  -93.72  -38.33 -102.16 -102.08
SO XBADJ    COOL2_12  -98.90 -162.89 -163.54 -159.23 -188.04 -189.98
SO XBADJ    COOL2_12 -190.74 -186.20 -176.01 -160.47 -140.05   46.26
SO XBADJ    COOL2_12  -87.21  -56.38  -23.84  -24.05  -27.26  -29.64
SO XBADJ    COOL2_12   59.65   57.33  -31.24  -29.86  -27.58  -24.46
SO YBADJ    COOL2_12    7.14   21.40   35.02   47.57   58.68   28.83
SO YBADJ    COOL2_12   16.76    4.17   -8.54   82.78   10.62   -3.52
SO YBADJ    COOL2_12  -17.55   30.70    5.02  -20.81   21.60    7.34
SO YBADJ    COOL2_12   -7.14  -21.40  -35.02  -47.57  -58.68  -28.83
SO YBADJ    COOL2_12  -75.26  -80.23  -82.76  -82.78  -80.28  -75.34
SO YBADJ    COOL2_12   17.55   31.05  -47.74  -35.21  -21.60   -7.34

SO BUILDHGT COOL2_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_13   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_13   31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL2_13   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_13   14.94   14.94   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_13   14.94   14.94   14.94   14.94   14.94   14.94
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SO BUILDWID COOL2_13   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_13  210.24  215.62   10.80   16.56   23.30   29.34
SO BUILDWID COOL2_13   34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL2_13   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_13  210.24  215.62  214.45  215.91  211.84   29.34
SO BUILDWID COOL2_13  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_13  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_13  104.00   69.55   42.54   43.42   43.33   41.93
SO BUILDLEN COOL2_13   39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL2_13  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_13  104.00   69.55   32.99   62.37   97.33   41.93
SO BUILDLEN COOL2_13  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_13   -7.54   -8.67   -9.54  -10.12  -10.40  -10.35
SO XBADJ    COOL2_13  -10.00   -9.34  -92.96  -93.91  -92.19  -87.67
SO XBADJ    COOL2_13 -109.75 -105.85 -178.56 -175.68 -205.42 -207.77
SO XBADJ    COOL2_13 -208.38 -203.17 -191.79 -174.58 -152.06 -124.93
SO XBADJ    COOL2_13  -94.00  -60.21  -24.60  -21.71  -21.89   45.74
SO XBADJ    COOL2_13  -20.28  -18.53  -16.22  -13.42  -10.20   -6.68
SO YBADJ    COOL2_13    9.48   26.77   43.25   58.42   71.81   83.02
SO YBADJ    COOL2_13   91.71   97.61    9.24   -3.35  -15.83  -27.84
SO YBADJ    COOL2_13   -3.44  -19.04   14.57  -14.02   25.44    8.10
SO YBADJ    COOL2_13   -9.48  -26.77  -43.25  -58.42  -71.81  -83.02
SO YBADJ    COOL2_13  -91.71  -97.61 -100.54 -100.42  -97.25   27.84
SO YBADJ    COOL2_13  -82.23  -70.83  -57.29  -42.00  -25.44   -8.10


SO BUILDHGT COOL2_14   14.94   31.39   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_14   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_14   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_14   62.37   43.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_14   24.57  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_14  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_14   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_14  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_14  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_14  215.91   23.30   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_14   43.16   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_14  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_14  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_14  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_14  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_14 -205.73 -175.95 -182.17 -182.85 -116.22 -119.07
SO XBADJ    COOL2_14 -118.29  -59.32  -24.15  -21.72  -22.36  -22.33
SO XBADJ    COOL2_14  -21.62  -20.24  -18.26  -15.72  -12.70   -9.29
SO XBADJ    COOL2_14  -10.19  -11.28  -12.03  -12.41  -12.42  -12.05
SO XBADJ    COOL2_14  -11.31  -10.23   -8.84  -40.65  -74.96 -107.00
SO XBADJ    COOL2_14 -135.78 -160.44 -180.22 -194.53 -202.92 -205.15
SO YBADJ    COOL2_14   -9.47   32.79    3.76  -25.38   16.42   -0.66
SO YBADJ    COOL2_14  -17.72  -95.11  -97.93  -97.77  -94.64  -88.64
SO YBADJ    COOL2_14  -79.94  -68.81  -55.60  -40.69  -24.55   -7.66
SO YBADJ    COOL2_14    9.47   26.30   42.33   57.08   70.10   80.98
SO YBADJ    COOL2_14   89.40   95.11   97.93   97.77   94.64   88.64
SO YBADJ    COOL2_14   79.94   68.81   55.60   40.69   24.55    7.66


SO BUILDHGT COOL2_15   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_15   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_15   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_15   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_15   24.57   17.96  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_15  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_15   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_15  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_15  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_15  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_15   43.16   43.51   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_15  157.40  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_15  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_15  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_15  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_15 -187.78 -183.39 -166.29 -168.75 -104.33 -109.74
SO XBADJ    COOL2_15 -111.81 -110.49  -23.87  -24.60  -28.32  -31.17
SO XBADJ    COOL2_15  -33.08  -33.98  -33.85  -32.70  -30.54  -27.46
SO XBADJ    COOL2_15  -28.13  -28.45  -27.90  -26.51  -24.31  -21.37
SO XBADJ    COOL2_15  -17.79  -13.66   -9.12  -37.77  -69.01  -98.16
SO XBADJ    COOL2_15 -124.32 -146.70 -164.62 -177.55 -185.08 -186.98
SO YBADJ    COOL2_15   -6.59  -20.35   12.61  -13.91   30.16   14.94
SO YBADJ    COOL2_15   -0.74  -16.40  -79.76  -79.83  -77.47  -72.76
SO YBADJ    COOL2_15  -65.84  -56.92  -46.27  -34.21  -21.11   -7.38
SO YBADJ    COOL2_15    6.59   20.35   33.49   45.62   56.36   65.39
SO YBADJ    COOL2_15   72.43   77.27   79.76   79.83   77.47   72.76
SO YBADJ    COOL2_15   65.84   56.92   46.27   34.21   21.11    7.38
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SO BUILDHGT COOL2_16     14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL2_16     31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_16     14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_16     14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_16     14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_16     14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_16     62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL2_16     24.57    17.96   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_16    184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDWID COOL2_16     62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL2_16    210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_16    184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_16    215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL2_16     43.16    43.51    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_16    157.40   180.68   198.48   210.24   215.62   214.45
SO BUILDLEN COOL2_16    215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_16    104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_16    157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_16   -173.20  -169.59  -153.69  -157.74  -156.99  -102.84
SO XBADJ    COOL2_16   -107.32  -108.54   -24.53   -27.84   -34.04   -39.21
SO XBADJ    COOL2_16    -43.18   -45.84   -47.11   -46.95   -45.36   -42.39
SO XBADJ    COOL2_16    -42.72   -42.25   -40.50   -37.52   -33.40   -28.27
SO XBADJ    COOL2_16    -22.27   -15.60    -8.46   -34.53   -63.29   -90.12
SO XBADJ    COOL2_16   -114.21  -134.84  -151.36  -163.29  -170.26  -172.05
SO YBADJ    COOL2_16     -3.34   -14.62    20.64    -3.81   -28.15    28.20
SO YBADJ    COOL2_16     13.51    -1.58   -64.83   -65.24   -63.67   -60.16
SO YBADJ    COOL2_16    -54.83   -47.83   -39.37   -29.72   -19.17    -8.04
SO YBADJ    COOL2_16      3.34    14.62    25.46    35.52    44.50    52.13
SO YBADJ    COOL2_16     58.17    62.45    64.83    65.24    63.67    60.16
SO YBADJ    COOL2_16     54.83    47.83    39.37    29.72    19.17     8.04

SO BUILDHGT COOL2_17     14.94    31.39    31.39    31.39    31.39    14.94
SO BUILDHGT COOL2_17     14.94    31.39    31.39    31.39    14.94    14.94
SO BUILDHGT COOL2_17     14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_17     14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_17     14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_17     14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_17     62.37    43.33    41.93    39.26    35.39   198.48
SO BUILDWID COOL2_17    210.24    17.96    10.80    16.56   211.84   201.33
SO BUILDWID COOL2_17    184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDWID COOL2_17     62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL2_17    210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_17    184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_17    215.91    23.30    29.34    34.48    38.57   135.28
SO BUILDLEN COOL2_17    104.00    43.51    42.54    43.42    97.33   129.33
SO BUILDLEN COOL2_17    157.40   180.68   198.48   210.24   215.62   214.45
SO BUILDLEN COOL2_17    215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_17    104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_17    157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_17   -157.82  -173.69  -140.08  -145.64  -146.77   -98.99
SO XBADJ    COOL2_17    -76.14  -105.57  -106.18  -105.15   -39.10   -46.75
SO XBADJ    COOL2_17    -52.97   -57.58   -60.45   -61.48   -60.64   -57.95
SO XBADJ    COOL2_17    -58.09   -56.97   -54.12   -49.62   -43.62   -36.29
SO XBADJ    COOL2_17    -27.86   -18.58    -8.74   -32.10   -58.23   -82.58
SO XBADJ    COOL2_17   -104.43  -123.10  -138.03  -148.77  -154.98  -156.49
SO YBADJ    COOL2_17     -0.92    34.19    28.18     5.98   -16.41   -38.79
SO YBADJ    COOL2_17    -43.65    13.69    -1.07   -15.80   -48.95   -46.55
SO YBADJ    COOL2_17    -42.73   -37.61   -31.35   -24.14   -16.19    -7.76
SO YBADJ    COOL2_17      0.92     9.56    17.92    25.73    32.76    38.79
SO YBADJ    COOL2_17     43.65    47.17    49.27    49.87    48.95    46.55
SO YBADJ    COOL2_17     42.73    37.61    31.35    24.14    16.19     7.76

SO BUILDHGT COOL2_18     14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL2_18     14.94    14.94    14.94    31.39    31.39    14.94
SO BUILDHGT COOL2_18     14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_18     14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_18     14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_18     14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_18     62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL2_18    210.24   215.62   214.45    16.56    23.30   201.33
SO BUILDWID COOL2_18    184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDWID COOL2_18     62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL2_18    210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_18    184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_18    215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL2_18    104.00    69.55    32.99    43.42    43.33   129.33
SO BUILDLEN COOL2_18    157.40   180.68   198.48   210.24   215.62   214.45
SO BUILDLEN COOL2_18    215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_18    104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_18    157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_18   -141.96  -139.77  -126.20  -133.40  -136.54  -135.54
SO XBADJ    COOL2_18    -70.80   -48.35   -24.44  -108.14  -106.79   -54.98
SO XBADJ    COOL2_18    -63.49   -70.07   -74.52   -76.71   -76.57   -74.10
SO XBADJ    COOL2_18    -73.95   -72.07   -68.00   -61.86   -53.85   -44.20
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SO XBADJ    COOL2_18  -33.20  -21.20   -8.55  -29.11  -52.53  -74.35
SO XBADJ    COOL2_18  -93.91 -110.61 -123.96 -133.54 -139.06 -140.35
SO YBADJ    COOL2_18    2.07   -3.86   36.42   16.50   -3.93  -24.23
SO YBADJ    COOL2_18  -28.41  -31.25  -33.13    0.06  -14.95  -32.66
SO YBADJ    COOL2_18  -30.49  -27.38  -23.45  -18.80  -13.58   -7.95
SO YBADJ    COOL2_18   -2.07    3.86    9.68   15.21   20.27   24.72
SO YBADJ    COOL2_18   28.41   31.25   33.13   34.01   33.85   32.66
SO YBADJ    COOL2_18   30.49   27.38   23.45   18.80   13.58    7.95

SO BUILDHGT COOL2_19   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_19   14.94   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_19   31.39   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_19   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_19   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_19  210.24  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL2_19   34.48  162.46  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_19   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_19  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_19  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_19  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_19  104.00   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL2_19   39.26  180.68  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_19  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_19  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_19  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_19 -124.45 -123.01 -150.80 -119.63 -124.93 -126.43
SO XBADJ    COOL2_19  -64.47  -45.00  -24.16  -36.06 -112.60 -110.83
SO XBADJ    COOL2_19 -105.69  -83.47  -89.74  -93.27  -93.98  -91.82
SO XBADJ    COOL2_19  -91.46  -88.83  -83.49  -75.63  -65.46  -53.30
SO XBADJ    COOL2_19  -39.53  -24.55   -8.83  -26.31  -46.73  -65.72
SO XBADJ    COOL2_19  -82.72  -97.21 -108.74 -116.97 -121.64 -122.62
SO YBADJ    COOL2_19    4.88    1.94   22.39   27.68    9.48   -9.01
SO YBADJ    COOL2_19  -11.85  -13.83  -15.40  -16.50    1.81  -14.01
SO YBADJ    COOL2_19  -29.40  -15.77  -14.34  -12.47  -10.22   -7.67
SO YBADJ    COOL2_19   -4.88   -1.94    1.06    4.03    6.87    9.50
SO YBADJ    COOL2_19   11.85   13.83   15.40   16.50   17.09   17.17
SO YBADJ    COOL2_19   16.72   15.77   14.34   12.47   10.22    7.67

SO BUILDHGT COOL2_20   14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_20   31.39   14.94   14.94   14.94   31.39   31.39
SO BUILDHGT COOL2_20   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_20   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_20   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_20   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_20   62.37   97.33   41.93   39.26   35.39   30.44
SO BUILDWID COOL2_20   24.57  215.62  214.45  215.91   23.30   29.34
SO BUILDWID COOL2_20   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_20   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_20  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_20  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_20  215.91  211.84   29.34   34.48   38.57   41.50
SO BUILDLEN COOL2_20   43.16   69.55   32.99   62.37   43.33   41.93
SO BUILDLEN COOL2_20   39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_20  215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_20  104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_20  157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_20 -108.91 -108.13 -137.04 -142.96 -114.61 -118.33
SO XBADJ    COOL2_20 -118.45  -41.99  -23.88  -38.52 -117.71 -118.45
SO XBADJ    COOL2_20 -115.59 -109.21 -103.22 -107.96 -109.42 -107.55
SO XBADJ    COOL2_20 -107.00 -103.70  -97.26  -87.86  -75.78  -61.41
SO XBADJ    COOL2_20  -45.17  -27.56   -9.11  -23.86  -41.61  -58.10
SO XBADJ    COOL2_20  -72.83  -85.34  -95.26 -102.28 -106.20 -106.89
SO YBADJ    COOL2_20    7.33    7.05   30.02    8.31   21.35    4.47
SO YBADJ    COOL2_20  -12.54    1.61    0.33   -0.96   16.69   -0.24
SO YBADJ    COOL2_20  -17.17  -33.57   -6.23   -6.83   -7.22   -7.39
SO YBADJ    COOL2_20   -7.33   -7.05   -6.56   -5.87   -5.00   -3.98
SO YBADJ    COOL2_20   -2.84   -1.61   -0.33    0.96    2.22    3.41
SO YBADJ    COOL2_20    4.49    5.45    6.23    6.83    7.22    7.39

SO BUILDHGT COOL2_21   14.94   14.94   14.94   31.39   31.39   31.39
SO BUILDHGT COOL2_21   31.39   31.39   14.94   14.94   14.94   31.39
SO BUILDHGT COOL2_21   31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_21   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_21   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_21   14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_21   62.37   97.33  129.33   39.26   35.39   30.44
SO BUILDWID COOL2_21   24.57   17.96  214.45  215.91  211.84   29.34
SO BUILDWID COOL2_21   34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_21   62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_21  210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_21  184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_21  215.91  211.84  201.33   34.48   38.57   41.50
SO BUILDLEN COOL2_21   43.16   43.51   32.99   62.37   97.33   41.93
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SO BUILDLEN COOL2_21    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL2_21   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_21   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_21   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_21   -90.76   -90.76   -88.01  -128.70  -132.52  -108.90
SO XBADJ    COOL2_21  -111.91  -111.52   -23.61   -41.45   -61.75  -127.41
SO XBADJ    COOL2_21  -127.20  -123.13  -119.01  -125.15  -127.48  -125.95
SO XBADJ    COOL2_21  -125.16  -121.08  -113.32  -102.12   -87.81   -70.84
SO XBADJ    COOL2_21   -51.71   -31.02    -9.38   -20.93   -35.57   -49.14
SO XBADJ    COOL2_21   -61.21   -71.43   -79.47   -85.10   -88.14   -88.50
SO YBADJ    COOL2_21    10.26    13.09    15.52    19.92     0.27    20.26
SO YBADJ    COOL2_21     4.65   -11.11    18.72    17.20    15.16    15.82
SO YBADJ    COOL2_21    -2.91   -21.54     3.20    -0.28    -3.76    -7.12
SO YBADJ    COOL2_21   -10.26   -13.09   -15.52   -17.48   -18.92   -19.77
SO YBADJ    COOL2_21   -20.03   -19.67   -18.72   -17.20   -15.16   -12.65
SO YBADJ    COOL2_21    -9.77    -6.58    -3.20     0.28     3.76     7.12


SO BUILDHGT COOL2_22    14.94    14.94    14.94    31.39    31.39    31.39
SO BUILDHGT COOL2_22    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL2_22    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL2_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_22    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_22    62.37    97.33   129.33    39.26    35.39    30.44
SO BUILDWID COOL2_22    24.57    17.96    10.80   215.91   211.84   201.33
SO BUILDWID COOL2_22    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL2_22    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL2_22   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_22   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_22   215.91   211.84   201.33    34.48    38.57    41.50
SO BUILDLEN COOL2_22    43.16    43.51    42.54    62.37    97.33   129.33
SO BUILDLEN COOL2_22    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL2_22   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_22   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_22   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_22   -75.01   -75.77   -74.23  -116.55  -122.36  -124.46
SO XBADJ    COOL2_22  -106.61  -108.92  -107.93   -44.41   -67.41   -88.36
SO XBADJ    COOL2_22  -137.65  -135.52  -129.28  -140.27  -143.29  -141.96
SO XBADJ    COOL2_22  -140.90  -136.07  -127.10  -114.27   -97.96   -78.68
SO XBADJ    COOL2_22   -57.01   -33.61    -9.19   -17.96   -29.92   -40.97
SO XBADJ    COOL2_22   -50.77   -59.03   -65.50   -69.98   -72.33   -72.48
SO YBADJ    COOL2_22    13.23    18.75    23.70    30.37    12.66    -5.43
SO YBADJ    COOL2_22    19.77     4.70   -10.51    32.94    30.15    26.43
SO YBADJ    COOL2_22     9.24   -11.39   -31.68     5.02    -1.16    -7.31
SO YBADJ    COOL2_22   -13.23   -18.75   -23.70   -27.93   -31.31   -33.74
SO YBADJ    COOL2_22   -35.14   -35.48   -34.74   -32.94   -30.15   -26.43
SO YBADJ    COOL2_22   -21.92   -16.73   -11.04    -5.02     1.16     7.31

SO BUILDHGT COOL2_23    14.94    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL2_23    31.39    14.94    31.39    31.39    14.94    14.94
SO BUILDHGT COOL2_23    31.39    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL2_23    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_23    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_23    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_23    62.37    97.33   129.33   157.40    35.39    30.44
SO BUILDWID COOL2_23    24.57   215.62    10.80    16.56   211.84   201.33
SO BUILDWID COOL2_23    34.48    38.57    41.50   104.00    69.55    32.99
SO BUILDWID COOL2_23    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL2_23   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL2_23   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL2_23   215.91   211.84   201.33   184.70    38.57    41.50
SO BUILDLEN COOL2_23    43.16    69.55    42.54    43.42    97.33   129.33
SO BUILDLEN COOL2_23    39.26    35.39    30.44   210.24   215.62   214.45
SO BUILDLEN COOL2_23   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL2_23   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL2_23   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL2_23   -59.24   -60.73   -60.37   -58.17  -112.07  -116.45
SO XBADJ    COOL2_23  -117.29   -33.16  -107.93  -108.01   -72.89   -96.37
SO XBADJ    COOL2_23  -147.94  -147.79  -143.15  -155.31  -159.06  -157.97
SO XBADJ    COOL2_23  -156.67  -151.11  -140.96  -126.53  -108.26   -86.69
SO XBADJ    COOL2_23   -62.49   -36.39    -9.19   -15.18   -24.44   -32.96
SO XBADJ    COOL2_23   -40.48   -46.77   -51.63   -54.93   -56.56   -56.47
SO YBADJ    COOL2_23    16.01    24.22    31.70    38.22    24.92     8.43
SO YBADJ    COOL2_23    -8.31    51.25     5.50    -9.63    45.19    40.30
SO YBADJ    COOL2_23    21.51    -1.10   -23.67    10.49     1.62    -7.31
SO YBADJ    COOL2_23   -16.01   -24.22   -31.70   -38.22   -43.57   -47.60
SO YBADJ    COOL2_23   -50.19   -51.25   -50.75   -48.71   -45.19   -40.30
SO YBADJ    COOL2_23   -34.18   -27.02   -19.05   -10.49    -1.62     7.31


SO BUILDHGT COOL2_24    14.94    14.94    14.94    14.94    14.94    31.39
SO BUILDHGT COOL2_24    31.39    31.39    14.94    31.39    31.39    31.39
SO BUILDHGT COOL2_24    14.94    31.39    31.39    14.94    14.94    14.94
SO BUILDHGT COOL2_24    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_24    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL2_24    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL2_24    62.37    97.33   129.33   157.40   180.68    30.44
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SO BUILDWID COOL2_24    24.57   17.96  214.45   16.56   23.30   29.34
SO BUILDWID COOL2_24   184.70   38.57   41.50  104.00   69.55   32.99
SO BUILDWID COOL2_24    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_24   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_24   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_24   215.91  211.84  201.33  184.70  162.46   41.50
SO BUILDLEN COOL2_24    43.16   43.51   32.99   43.42   43.33   41.93
SO BUILDLEN COOL2_24   157.40   35.39   30.44  210.24  215.62  214.45
SO BUILDLEN COOL2_24   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_24   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_24   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_24   -42.50  -44.75  -45.64  -45.15  -43.28 -107.95
SO XBADJ    COOL2_24  -111.48 -111.62  -23.80 -110.96 -110.80 -107.27
SO XBADJ    COOL2_24  -127.84 -160.81 -157.87 -171.29 -175.80 -174.97
SO XBADJ    COOL2_24  -173.41 -167.09 -155.68 -139.55 -119.18  -95.19
SO XBADJ    COOL2_24   -68.30  -39.34   -9.19  -12.23  -18.63  -24.46
SO XBADJ    COOL2_24   -29.55  -33.74  -36.91  -38.96  -39.82  -39.47
SO YBADJ    COOL2_24    18.96   30.04   40.20   49.15   56.60   23.16
SO YBADJ    COOL2_24     7.66   -8.07   67.75    7.11   -8.49  -23.84
SO YBADJ    COOL2_24    47.20    9.83  -15.17   16.31    4.57   -7.31
SO YBADJ    COOL2_24   -18.96  -30.04  -40.20  -49.15  -56.60  -62.33
SO YBADJ    COOL2_24   -66.16  -67.99  -67.75  -65.45  -61.17  -55.02
SO YBADJ    COOL2_24   -47.20  -37.95  -27.55  -16.31   -4.57    7.31

SO BUILDHGT COOL2_25    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_25    31.39   31.39   31.39   14.94   31.39   31.39
SO BUILDHGT COOL2_25    31.39   31.39   31.39   31.39   14.94   14.94
SO BUILDHGT COOL2_25    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_25    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_25    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_25    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_25    24.57   17.96   10.80  215.91   23.30   29.34
SO BUILDWID COOL2_25    34.48   38.57   41.50   43.16   69.55   32.99
SO BUILDWID COOL2_25    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_25   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_25   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_25   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_25    43.16   43.51   42.54   62.37   43.33   41.93
SO BUILDLEN COOL2_25    39.26   35.39   30.44   24.57  215.62  214.45
SO BUILDLEN COOL2_25   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_25   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_25   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_25   -25.76  -28.78  -30.92  -32.12  -32.35  -31.59
SO XBADJ    COOL2_25  -105.66 -108.67 -108.37  -53.10 -116.61 -115.77
SO XBADJ    COOL2_25  -111.40 -173.83 -172.59 -166.11 -192.54 -191.97
SO XBADJ    COOL2_25  -190.15 -183.06 -170.41 -152.58 -130.11 -103.69
SO XBADJ    COOL2_25   -74.12  -42.30   -9.19   -9.27  -12.81  -15.96
SO XBADJ    COOL2_25   -18.62  -20.72  -22.19  -22.98  -23.08  -22.47
SO YBADJ    COOL2_25    21.91   35.85   48.70   60.07   69.62   77.05
SO YBADJ    COOL2_25    23.64    8.68   -6.55   82.19    7.48   -9.12
SO YBADJ    COOL2_25   -25.44   20.75   -6.67  -33.90    7.52   -7.31
SO YBADJ    COOL2_25   -21.91  -35.85  -48.70  -60.07  -69.62  -77.05
SO YBADJ    COOL2_25   -82.14  -84.73  -84.75  -82.19  -77.14  -69.74
SO YBADJ    COOL2_25   -60.23  -48.88  -36.05  -22.12   -7.52    7.31

SO BUILDHGT COOL2_26    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_26    14.94   14.94   31.39   31.39   31.39   31.39
SO BUILDHGT COOL2_26    31.39   31.39   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_26    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_26    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDHGT COOL2_26    14.94   14.94   14.94   14.94   14.94   14.94
SO BUILDWID COOL2_26    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_26   210.24  215.62   10.80   16.56   23.30   29.34
SO BUILDWID COOL2_26    34.48   38.57  135.28  104.00   69.55   32.99
SO BUILDWID COOL2_26    62.37   97.33  129.33  157.40  180.68  198.48
SO BUILDWID COOL2_26   210.24  215.62  214.45  215.91  211.84  201.33
SO BUILDWID COOL2_26   184.70  162.46  135.28  104.00   69.55   32.99
SO BUILDLEN COOL2_26   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_26   104.00   69.55   42.54   43.42   43.33   41.93
SO BUILDLEN COOL2_26    39.26   35.39  198.48  210.24  215.62  214.45
SO BUILDLEN COOL2_26   215.91  211.84  201.33  184.70  162.46  135.28
SO BUILDLEN COOL2_26   104.00   69.55   32.99   62.37   97.33  129.33
SO BUILDLEN COOL2_26   157.40  180.68  198.48  210.24  215.62  214.45
SO XBADJ    COOL2_26   -10.00  -13.74  -17.06  -19.87  -22.07  -23.59
SO XBADJ    COOL2_26   -24.41  -24.48 -108.37 -109.13 -106.75 -123.77
SO XBADJ    COOL2_26  -121.69 -115.91 -190.15 -202.30 -208.30 -207.97
SO XBADJ    COOL2_26  -205.91 -198.10 -184.26 -164.83 -140.39 -111.69
SO XBADJ    COOL2_26   -79.59  -45.08   -9.19   -6.50   -7.34   -7.96
SO XBADJ    COOL2_26    -8.34   -8.46   -8.33   -7.95   -7.32   -6.47
SO YBADJ    COOL2_26    24.69   41.32   56.70   70.36   81.88   90.91
SO YBADJ    COOL2_26    97.17  100.49    9.45   -5.82  -20.91    4.74
SO YBADJ    COOL2_26   -13.19  -30.71   44.05   27.59   10.30   -7.31
SO YBADJ    COOL2_26   -24.69  -41.32  -56.70  -70.36  -81.88  -90.91
SO YBADJ    COOL2_26   -97.17 -100.49 -100.75  -97.95  -92.18  -83.60
SO YBADJ    COOL2_26   -72.48  -59.16  -44.05  -27.59  -10.30    7.31
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** OTHER BACKGROUND PSD INCREMENT AFFECTING SOURCES
**      Hubbard Construction Company
   LOCATION     HUBB23   POINT 562626.9   2951930.2  4.00
   LOCATION     HUBFUG  VOLUME 562626.970 2951929.820 4.00

**      Palm Beach Aggregates, Inc.
   LOCATION     PBAFUG  VOLUME 562750.8   2951929.2 4.00

   LOCATION     PBARD1  VOLUME 562876.490 2952732.444 4.00
   LOCATION     PBARD2  VOLUME 562874.973 2952714.505 4.00
   LOCATION     PBARD3  VOLUME 562873.456 2952696.566 4.00
   LOCATION     PBARD4  VOLUME 562871.939 2952678.626 4.00
   LOCATION     PBARD5  VOLUME 562870.422 2952660.687 4.00
   LOCATION     PBARD6  VOLUME 562868.905 2952642.748 4.00
   LOCATION     PBARD7  VOLUME 562867.388 2952624.809 4.00
   LOCATION     PBARD8  VOLUME 562865.871 2952606.869 4.00
   LOCATION     PBARD9  VOLUME 562864.354 2952588.930 4.00
   LOCATION     PBARD10 VOLUME 562862.837 2952570.991 4.00
   LOCATION     PBARD11 VOLUME 562861.320 2952553.052 4.00
   LOCATION     PBARD12 VOLUME 562859.803 2952535.112 4.00
   LOCATION     PBARD13 VOLUME 562858.286 2952517.173 4.00
   LOCATION     PBARD14 VOLUME 562856.769 2952499.234 4.00
   LOCATION     PBARD15 VOLUME 562855.252 2952481.294 4.00
   LOCATION     PBARD16 VOLUME 562853.735 2952463.355 4.00
   LOCATION     PBARD17 VOLUME 562852.218 2952445.416 4.00
   LOCATION     PBARD18 VOLUME 562850.701 2952427.477 4.00
   LOCATION     PBARD19 VOLUME 562849.184 2952409.537 4.00
   LOCATION     PBARD20 VOLUME 562847.667 2952391.598 4.00
   LOCATION     PBARD21 VOLUME 562846.150 2952373.659 4.00
   LOCATION     PBARD22 VOLUME 562844.633 2952355.720 4.00
   LOCATION     PBARD23 VOLUME 562843.117 2952337.780 4.00
   LOCATION     PBARD24 VOLUME 562841.600 2952319.841 4.00
   LOCATION     PBARD25 VOLUME 562840.083 2952301.902 4.00
   LOCATION     PBARD26 VOLUME 562838.566 2952283.962 4.00
   LOCATION     PBARD27 VOLUME 562837.049 2952266.023 4.00
   LOCATION     PBARD28 VOLUME 562835.532 2952248.084 4.00
   LOCATION     PBARD29 VOLUME 562834.015 2952230.145 4.00
   LOCATION     PBARD30 VOLUME 562832.498 2952212.205 4.00
   LOCATION     PBARD31 VOLUME 562830.981 2952194.266 4.00
   LOCATION     PBARD32 VOLUME 562829.464 2952176.327 4.00
   LOCATION     PBARD33 VOLUME 562827.947 2952158.388 4.00
   LOCATION     PBARD34 VOLUME 562826.430 2952140.448 4.00
   LOCATION     PBARD35 VOLUME 562824.913 2952122.509 4.00
   LOCATION     PBARD36 VOLUME 562823.396 2952104.570 4.00
   LOCATION     PBARD37 VOLUME 562821.879 2952086.630 4.00
   LOCATION     PBARD38 VOLUME 562820.362 2952068.691 4.00
   LOCATION     PBARD39 VOLUME 562818.845 2952050.752 4.00
   LOCATION     PBARD40 VOLUME 562817.328 2952032.813 4.00
   LOCATION     PBARD41 VOLUME 562815.811 2952014.873 4.00
   LOCATION     PBARD42 VOLUME 562814.294 2951996.934 4.00
   LOCATION     PBARD43 VOLUME 562812.777 2951978.995 4.00
   LOCATION     PBARD44 VOLUME 562811.260 2951961.056 4.00

**      SFWMD - Pump Station S-5A
SO LOCATION     PS_S5A   POINT    562860.0        2951370.0       4.0

**      SFWMD - Pump Station S-319
SO LOCATION     PS_S319  POINT    566300.0        2951220.0       1.5

**      Atlantic Sugar
SO LOCATION     ATLSUG1B POINT    552900.0        2945200.0       1.5
SO LOCATION     ATLSUG2B POINT    552900.0        2945200.0       1.5
SO LOCATION     ATLSUG3B POINT    552900.0        2945200.0       1.5
SO LOCATION     ATLSUG4B POINT    552900.0        2945200.0       1.5

**      Osceola Farms
SO LOCATION     OSBLR5B  POINT    544200.0        2968000.0       1.5

SO LOCATION     OSBLR1B  POINT    544200.0        2968000.0       1.5
SO LOCATION     OSBLR2B  POINT    544200.0        2968000.0       1.5
SO LOCATION     OSBLR3B  POINT    544200.0        2968000.0       1.5
SO LOCATION     OSBLR4B  POINT    544200.0        2968000.0       1.5

**      Sugar Cane Growers Co-Op
SO LOCATION     SCBLR1N  POINT    534900.0        2953300.0       1.5
SO LOCATION     SCBLR2N  POINT    534900.0        2953300.0       1.5
SO LOCATION     SCBLR3N  POINT    534900.0        2953300.0       1.5
SO LOCATION     SCBLR4N  POINT    534900.0        2953300.0       1.5
SO LOCATION     SCBLR5N  POINT    534900.0        2953300.0       1.5
SO LOCATION     SCBLR8N  POINT    534900.0        2953300.0       1.5

SO LOCATION     SCBLR1F  POINT    534900.0        2953300.0       1.5
SO LOCATION     SCBLR4F  POINT    534900.0        2953300.0       1.5

SO LOCATION     BLR123BF POINT    534900.0        2953300.0       1.5

SO LOCATION     SCBLR4BF POINT    534900.0        2953300.0       1.5
SO LOCATION     SCBLR5BF POINT    534900.0        2953300.0       1.5
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SO LOCATION     SCBLR6BF POINT   534900.0        2953300.0       1.5
SO LOCATION     SCBLR7BF POINT   534900.0        2953300.0       1.5

SO LOCATION     BLR123BN POINT   534900.0        2953300.0       1.5

SO LOCATION     SCBLR4BN POINT   534900.0        2953300.0       1.5
SO LOCATION     SCBLR5BN POINT   534900.0        2953300.0       1.5
SO LOCATION     SCBLR6BN POINT   534900.0        2953300.0       1.5
SO LOCATION     SCBLR7BN POINT   534900.0        2953300.0       1.5

**      U.S. Sugar Corp. Bryant Mill
SO LOCATION     USSBRY1B POINT   537830.0        2969120.0       1.5
SO LOCATION     USBRY23B POINT   537830.0        2969120.0       1.5

**      City of Lake Worth Utilities
SO LOCATION     LAKWTHDG POINT   592800.0        2943700.0       7.6
SO LOCATION     LAKWTHHR POINT   592800.0        2943700.0       7.6
SO LOCATION     LAKWTHU1 POINT   592800.0        2943700.0       7.6
SO LOCATION     LAKWTHU5 POINT   592800.0        2943700.0       7.6

**      New Hope Power Partnership (Okeelanta)
SO LOCATION     OKCOGENF POINT   524920.0        2939440.0       1.5

**      Okeelanta
SO LOCATION     OKBLRB   POINT   524700.0        2939500.0       1.5
SO LOCATION     OKBLR16  POINT   524700.0        2939500.0       1.5

**      FPL - Martin Power Plant
SO LOCATION     MART34   POINT   542680.0        2992650.0       7.6
SO LOCATION     MARTAUX  POINT   542680.0        2992650.0       7.6
SO LOCATION     MARTGEN  POINT   542680.0        2992650.0       7.6
SO LOCATION     MART8OIL POINT   542680.0        2992650.0       7.6

**      U.S. Sugar Clewiston Mill and Refinery
SO LOCATION     USSBLR1N POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR2N POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR4N POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR7N POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR8N POINT   506100.0        2956900.0       6.1

SO LOCATION     USSBLR1F POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR2F POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR4F POINT   506100.0        2956900.0       6.1

SO LOCATION     USSBLR1B POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR2B POINT   506100.0        2956900.0       6.1
SO LOCATION     USSBLR3B POINT   506100.0        2956900.0       6.1
SO LOCATION     EPELLET  POINT   506100.0        2956900.0       6.1
SO LOCATION     WPELLET  POINT   506100.0        2956900.0       6.1

SO LOCATION     S1       POINT   506100.0        2956900.0       6.1
SO LOCATION     S2       POINT   506100.0        2956900.0       6.1
SO LOCATION     S3       POINT   506100.0        2956900.0       6.1
SO LOCATION     S4       POINT   506100.0        2956900.0       6.1
SO LOCATION     S5       POINT   506100.0        2956900.0       6.1
SO LOCATION     S6       POINT   506100.0        2956900.0       6.1
SO LOCATION     S7       POINT   506100.0        2956900.0       6.1
SO LOCATION     S8       POINT   506100.0        2956900.0       6.1
SO LOCATION     S9       POINT   506100.0        2956900.0       6.1
SO LOCATION     S10      POINT   506100.0        2956900.0       6.1
SO LOCATION     S11      POINT   506100.0        2956900.0       6.1
SO LOCATION     S12      POINT   506100.0        2956900.0       6.1
SO LOCATION     S13      POINT   506100.0        2956900.0       6.1

SO LOCATION     BT3LS1   POINT   506100.0        2956900.0       6.1
SO LOCATION     BT3LS2   POINT   506100.0        2956900.0       6.1
SO LOCATION     BT3LRR   POINT   506100.0        2956900.0       6.1
SO LOCATION     MOLSALTS POINT   506100.0        2956900.0       6.1
SO LOCATION     MOLLSS   POINT   506100.0        2956900.0       6.1
SO LOCATION     WWTPLS   POINT   506100.0        2956900.0       6.1

**      Florida Power & Light (PFL) - Fort Lauderdale
SO LOCATION     LAUDU45  POINT   579390.0        2883360.0       1.5
SO LOCATION     FTLAU45B POINT   579390.0        2883360.0       1.5

**      Vero Beach Power
SO LOCATION     VERBU4   POINT   561400.0        3056500.0       1.5
SO LOCATION     VERBU5   POINT   561400.0        3056500.0       1.5
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**      Hubbard Construction Company
   SRCPARAM     HUBB23  1.23    9.14  394.3  30.54  1.16
   SRCPARAM     HUBFUG  0.80    2.29 14.18 2.13

   EMISFACT     HUBFUG HROFDY 0 0 0 0 0 0 1 1 1 1 1 1
   EMISFACT     HUBFUG HROFDY 1 1 1 1 1 1 0 0 0 0 0 0
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**      Palm Beach Aggregates, Inc.
   SRCPARAM     PBAFUG  0.17    2.29 14.18 2.13

   SRCPARAM     PBARD1  0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD2  0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD3  0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD4  0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD5  0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD6  0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD7  0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD8  0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD9  0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD10 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD11 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD12 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD13 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD14 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD15 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD16 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD17 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD18 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD19 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD20 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD21 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD22 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD23 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD24 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD25 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD26 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD27 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD28 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD29 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD30 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD31 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD32 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD33 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD34 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD35 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD36 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD37 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD38 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD39 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD40 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD41 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD42 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD43 0.0036 2.74 8.37 2.55
   SRCPARAM     PBARD44 0.0036 2.74 8.37 2.55

**      SFWMD - Pump Station S-5A
SO SRCPARAM     PS_S5A   0.111  4.88     686      5.30     0.99

**      SFWMD - Pump Station S-319
SO SRCPARAM     PS_S319  0.04    17.68   616      33.41    0.46

**      Atlantic Sugar
SO SRCPARAM     ATLSUG1B -14.74  18.90   506      12.70    1.92
SO SRCPARAM     ATLSUG2B -17.89  18.90   511      10.90    1.92
SO SRCPARAM     ATLSUG3B -9.32   21.90   522      17.50    1.83
SO SRCPARAM     ATLSUG4B -9.25   18.30   344      15.00    1.83

**      Osceola Farms
SO SRCPARAM     OSBLR5B  40.48   27.43   339      14.23    1.52

SO SRCPARAM     OSBLR1B  -3.38   22.00   342      8.98     1.52
SO SRCPARAM     OSBLR2B  -7.52   22.00   342      14.22    1.52
SO SRCPARAM     OSBLR3B  -4.03   22.00   342      11.23    1.98
SO SRCPARAM     OSBLR4B  -6.01   22.00   342      13.35    1.83

**      Sugar Cane Growers Co-Op
SO SRCPARAM     SCBLR1N  8.40    45.72   342      15.12    2.13
SO SRCPARAM     SCBLR2N  8.32    45.72   342      15.58    2.13
SO SRCPARAM     SCBLR3N  6.62    54.86   342      12.28    1.62
SO SRCPARAM     SCBLR4N  14.43   54.86   345      16.49    2.72
SO SRCPARAM     SCBLR5N  13.83   45.72   344      23.50    2.13
SO SRCPARAM     SCBLR8N  9.53    47.24   341      11.46    2.90

SO SRCPARAM     SCBLR1F  8.40    45.72   342      15.12    2.13
SO SRCPARAM     SCBLR4F  14.43   54.86   345      16.49    2.72

SO SRCPARAM     BLR123BF -22.39  24.10   475      15.94    1.68

SO SRCPARAM     SCBLR4BF -8.58   26.20   338      9.88     1.62
SO SRCPARAM     SCBLR5BF -20.74  24.10   528      28.42    2.03
SO SRCPARAM     SCBLR6BF 0.00    12.20   605      6.53     1.52
SO SRCPARAM     SCBLR7BF 0.00    12.20   606      17.20    1.52

SO SRCPARAM     BLR123BN -44.98  24.10   475      15.94    1.68
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SO SRCPARAM      SCBLR4BN -8.58    26.20    338      9.88     1.62
SO SRCPARAM      SCBLR5BN -14.79   24.10    528      28.42    2.03
SO SRCPARAM      SCBLR6BN -0.47    12.20    605      6.53     1.52
SO SRCPARAM      SCBLR7BN -1.11    12.20    606      17.20    1.52

**      U.S. Sugar Corp. Bryant Mill
SO SRCPARAM      USSBRY1B -4.97    19.81    494      44.30    1.68
SO SRCPARAM      USBRY23B -9.10    19.81    344      37.90    1.68

**      City of Lake Worth Utilities
SO SRCPARAM      LAKWTHDG 3.02     5.18     626      37.09    0.56
SO SRCPARAM      LAKWTHHR 1.64     14.02    720      24.84    4.88
SO SRCPARAM      LAKWTHU1 1.64     18.29    428      10.52    1.52
SO SRCPARAM      LAKWTHU5 1.13     22.86    480      27.80    3.05

**      New Hope Power Partnership (Okeelanta)
SO SRCPARAM      OKCOGENF 8.13     60.66    451      20.63    3.05

**      Okeelanta
SO SRCPARAM      OKBLRB   -46.96   22.86    333      7.36     2.29
SO SRCPARAM      OKBLR16  0.77     22.86    474      30.69    1.52

**      FPL - Martin Power Plant
SO SRCPARAM      MART34   30.54    64.92    411      18.90    6.10
SO SRCPARAM      MARTAUX  0.01     18.29    535      15.24    1.10
SO SRCPARAM      MARTGEN  0.27     7.62     786      39.62    0.30
SO SRCPARAM      MART8OIL 18.65    36.58    420      22.40    5.79

**      U.S. Sugar Clewiston Mill and Refinery
SO SRCPARAM      USSBLR1N 15.61    64.92    339      25.27    2.44
SO SRCPARAM      USSBLR2N 14.08    64.92    339      25.27    2.44
SO SRCPARAM      USSBLR4N 11.34    45.72    344      27.04    2.50
SO SRCPARAM      USSBLR7N 2.79     68.58    441      28.80    2.44
SO SRCPARAM      USSBLR8N 3.39     60.66    430      23.07    3.32

SO SRCPARAM      USSBLR1F 15.61    64.92    339      25.27    2.44
SO SRCPARAM      USSBLR2F 14.08    64.92    339      25.27    2.44
SO SRCPARAM      USSBLR4F 11.34    45.72    344      27.04    2.50

SO SRCPARAM      USSBLR1B -7.48    23.10    344      30.18    1.86
SO SRCPARAM      USSBLR2B -7.04    23.10    343      35.66    1.86
SO SRCPARAM      USSBLR3B -3.59    27.43    342      14.69    2.29
SO SRCPARAM      EPELLET  -1.69    12.19    347      8.53     1.52
SO SRCPARAM      WPELLET  -0.82    15.70    347      8.53     1.52

SO SRCPARAM      S1       0.01     19.81    293      0.01     0.15
SO SRCPARAM      S2       0.01     19.81    305      0.01     0.15
SO SRCPARAM      S3       0.01     19.81    305      0.01     0.15
SO SRCPARAM      S4       0.03     18.29    325      0.01     0.59
SO SRCPARAM      S5       0.01     21.95    325      0.01     0.29
SO SRCPARAM      S6       0.02     21.95    325      0.01     0.59
SO SRCPARAM      S7       0.01     39.62    316      0.01     0.42
SO SRCPARAM      S8       0.01     39.62    316      0.01     0.42
SO SRCPARAM      S9       0.01     39.62    316      0.01     0.42
SO SRCPARAM      S10      0.18     3.05     319      0.01     1.46
SO SRCPARAM      S11      0.21     22.86    319      0.01     2.23
SO SRCPARAM      S12      0.08     9.14     344      6.95     0.61
SO SRCPARAM      S13      0.53     24.38    305      0.01     2.23

SO SRCPARAM      BT3LS1   0.01     19.81    297      0.01     0.20
SO SRCPARAM      BT3LS2   0.01     19.81    297      0.01     0.20
SO SRCPARAM      BT3LRR   0.01     19.81    297      0.01     0.20
SO SRCPARAM      MOLSALTS 0.02     9.14     297      0.01     0.20
SO SRCPARAM      MOLLSS   0.02     12.19    297      0.01     0.20
SO SRCPARAM      WWTPLS   0.02     12.19    297      0.01     0.20

**      Florida Power & Light (PFL) - Fort Lauderdale
SO SRCPARAM      LAUDU45  29.23    45.72    439      48.37    5.49
SO SRCPARAM      FTLAU45B -4.05    45.72    422      14.63    4.27

**      Vero Beach Power
SO SRCPARAM      VERBU4   8.63     60.96    413      23.68    2.13
SO SRCPARAM      VERBU5   1.44     38.10    483      25.02    3.35

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**      Atlantic Sugar
SO EMISFACT ATLSUG1B-ATLSUG4B  MONTH 1 1 1 1 0 0 0 0 0 1 1 1

**      Osceola Farms
SO EMISFACT OSBLR5B            MONTH 1 1 1 1 0 0 0 0 0 1 1 1
SO EMISFACT OSBLR1B-OSBLR4B    MONTH 1 1 1 1 0 0 0 0 0 1 1 1

**      Sugar Cane Growers Co-Op
SO EMISFACT SCBLR1N-SCBLR8N    MONTH 1 1 1 1 0 0 0 0 0 1 1 1
SO EMISFACT SCBLR1F-SCBLR4F    MONTH 0 0 0 0 1 1 1 1 1 0 0 0
SO EMISFACT BLR123BN           MONTH 1 1 1 1 0 0 0 0 0 1 1 1
SO EMISFACT SCBLR4BN-SCBLR7BN  MONTH 1 1 1 1 0 0 0 0 0 1 1 1
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SO EMISFACT BLR123BF            MONTH 0 0 0 0 1 1 1 1 1 0 0 0
SO EMISFACT SCBLR4BF-SCBLR7BF   MONTH 0 0 0 0 1 1 1 1 1 0 0 0

**       U.S. Sugar Corp. Bryant Mill
SO EMISFACT USSBRY1B            MONTH 1 1 1 0 0 0 0 0 0 0 1 1
SO EMISFACT USBRY23B            MONTH 1 1 1 0 0 0 0 0 0 0 1 1

**       Okeelanta
SO EMISFACT OKBLRB              MONTH 1 1 1 1 0 0 0 0 0 1 1 1

**       U.S. Sugar Clewiston Mill and Refinery
SO EMISFACT USSBLR1N-USSBLR8N   MONTH 1 1 1 1 0 0 0 0 0 1 1 1
SO EMISFACT USSBLR1F-USSBLR4F   MONTH 0 0 0 0 1 1 1 1 1 0 0 0

SO EMISFACT USSBLR1B-USSBLR3B   MONTH 1 1 1 0 0 0 0 0 0 0 1 1
SO EMISFACT EPELLET             MONTH 1 1 1 0 0 0 0 0 0 0 1 1
SO EMISFACT WPELLET             MONTH 1 1 1 0 0 0 0 0 0 0 1 1

   SRCGROUP ALL

SO FINISHED
**
*****************************************
** ISCST3 Receptor Pathway
*****************************************
**
**
RE STARTING
** NO RECEPTORS ON PALM BEACH AGGREGATES PROPERTY
   INCLUDED WC3150XY.ROU
RE FINISHED
**
*****************************************
** AERMOD Meteorology Pathway
*****************************************
**
**
ME STARTING
** SURFFILE C:\amodmet\PBIMIA01.SFC
** PROFFILE C:\amodmet\PBIMIA01.PFL
   SURFFILE PBIMIA01.SFC
   PROFFILE PBIMIA01.PFL
   SURFDATA 12844 2001 WEST_PALM_BEACH/INT'L_ARPT
   UAIRDATA 92803 2001 MIAMI/FIU
   PROFBASE 19 FEET
ME FINISHED
**
*****************************************
** AERMOD Output Pathway
*****************************************
**
**
OU STARTING
   RECTABLE ALLAVE FIRST SECOND
OU FINISHED
**
```

AERBOB RELEASE 020304

AERMOD OUTPUT FILE NUMBER 1 :PMCL2.001
AERMOD OUTPUT FILE NUMBER 2 :PMCL2.002
AERMOD OUTPUT FILE NUMBER 3 :PMCL2.003
AERMOD OUTPUT FILE NUMBER 4 :PMCL2.004
AERMOD OUTPUT FILE NUMBER 5 :PMCL2.005
First title for last output file is: 2001 FPL WEST COUNTY UNIT 3 - 24-HR PM10 PSD CL2 ANALYS 11/16/07
Second title for last output file is: PM10 IMPACTS, CT/HRSGs ON OIL, INCLUDES PBA & HUBBARD CONST

AVERAGING TIME	YEAR	CONC (ug/m3)	X (m)	Y (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: ALL					
Annual					
	2001	4.09661	562278.	2951987.	01123124
	2002	4.34004	562279.	2952035.	02123124
	2003	3.63814	562279.	2952035.	03123124
	2004	4.29853	562278.	2951987.	04123124
	2005	3.99512	562278.	2951987.	05123124
HIGH 24-Hour					
	2001	29.52313	562881.	2951562.	01122524
	2002	29.28307	562881.	2951562.	02011924
	2003	26.51533	563072.	2951555.	03011324
	2004	36.20205	562278.	2951938.	04100524
	2005	30.16917	562278.	2951987.	05123024
HSH 24-Hour					
	2001	24.63548	562929.	2951560.	01120324
	2002	22.64213	562881.	2951562.	02112424
	2003	21.02477	563025.	2951557.	03012624
	2004	21.07078	562929.	2951560.	04112124
	2005	21.52191	562278.	2951938.	05110124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

AERBOB RELEASE 020304

AERMOD OUTPUT FILE NUMBER 1 :PMCL2X.001
AERMOD OUTPUT FILE NUMBER 2 :PMCL2X.002
AERMOD OUTPUT FILE NUMBER 3 :PMCL2X.003
AERMOD OUTPUT FILE NUMBER 4 :PMCL2X.004
AERMOD OUTPUT FILE NUMBER 5 :PMCL2X.005
First title for last output file is: 2001 FPL WEST COUNTY UNIT 3 - 24-HR PM10 PSD CL2 ANALYS 11/16/07
Second title for last output file is: PM10 IMPACTS, CT/HRSGs ON OIL, WITHOUT PBA & HUBBARD CONST

AVERAGING TIME	YEAR	CONC (ug/m3)	X (m)	Y (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	ALL				
Annual					
	2001	1.60433	562750.	2951400.	01123124
	2002	1.80474	562750.	2951400.	02123124
	2003	1.40507	562750.	2951400.	03123124
	2004	1.75434	562750.	2951400.	04123124
	2005	1.49048	562750.	2951400.	05123124
HIGH 24-Hour					
	2001	9.30068	561250.	2952500.	01100924
	2002	8.60398	561650.	2954200.	02123124
	2003	7.89853	562950.	2951300.	03012424
	2004	14.37553	562350.	2953800.	04090524
	2005	9.61465	562850.	2951300.	05041524
HSH 24-Hour					
	2001	9.07687	561250.	2952600.	01110124
	2002	6.77132	562750.	2951400.	02081624
	2003	7.43568	562850.	2951300.	03112924
	2004	9.91911	562450.	2953900.	04092624
	2005	8.33760	562850.	2951300.	05011824

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

AERMOD

COOLING TOWER PM_{10} DEPOSITION

```
CO STARTING
   TITLEONE 2001 FPL WEST COUNTY UNIT 3 COOLING TOWER SALT DRIFT DEP 11/5/07
   TITLETWO 26 CELLS REPRESENTED BY 1 CELL
   MODELOPT DEPOS DDEP WDEP TOXICS
   AVERTIME 24 PERIOD
   POLLUTID PM
   RUNORNOT RUN
CO FINISHED
**
*****************************************
** AERMOD Source Pathway
*****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **

** COOLING TOWERS
**    LOCATION COOL3_01   POINT  562250.100 2952798.640 4.000
**    LOCATION COOL3_02   POINT  562250.290 2952780.090 4.000
**    LOCATION COOL3_03   POINT  562249.930 2952764.770 4.000
**    LOCATION COOL3_04   POINT  562249.650 2952746.510 4.000
**    LOCATION COOL3_05   POINT  562248.890 2952730.590 4.000
**    LOCATION COOL3_06   POINT  562249.100 2952713.490 4.000
   LOCATION COOL3_07   POINT  562248.330 2952698.830 4.000
**    LOCATION COOL3_08   POINT  562247.560 2952681.350 4.000
**    LOCATION COOL3_09   POINT  562247.780 2952665.220 4.000
**    LOCATION COOL3_10   POINT  562247.500 2952649.290 4.000
**    LOCATION COOL3_11   POINT  562247.220 2952633.360 4.000
**    LOCATION COOL3_12   POINT  562245.830 2952616.600 4.000
**    LOCATION COOL3_13   POINT  562245.530 2952598.970 4.000
**    LOCATION COOL3_14   POINT  562266.000 2952798.620 4.000
**    LOCATION COOL3_15   POINT  562265.720 2952780.450 4.000
**    LOCATION COOL3_16   POINT  562264.970 2952764.670 4.000
**    LOCATION COOL3_17   POINT  562264.200 2952746.770 4.000
**    LOCATION COOL3_18   POINT  562263.440 2952730.710 4.000
**    LOCATION COOL3_19   POINT  562262.670 2952713.490 4.000
**    LOCATION COOL3_20   POINT  562262.890 2952697.350 4.000
**    LOCATION COOL3_21   POINT  562262.610 2952681.390 4.000
**    LOCATION COOL3_22   POINT  562262.330 2952665.430 4.000
**    LOCATION COOL3_23   POINT  562261.360 2952647.630 4.000
**    LOCATION COOL3_24   POINT  562262.330 2952633.060 4.000
**    LOCATION COOL3_25   POINT  562261.850 2952616.570 4.000
**    LOCATION COOL3_26   POINT  562260.390 2952598.600 4.000

**    SRCPARAM COOL3_01 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_02 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_03 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_04 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_05 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_06 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_07 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_08 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_09 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_10 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_11 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_12 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_13 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_14 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_15 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_16 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_17 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_18 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_19 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_20 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_21 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_22 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_23 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_24 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_25 0.111 19.202 309.2 7.17 10.668
**    SRCPARAM COOL3_26 0.111 19.202 309.2 7.17 10.668

   SRCPARAM COOL3_07 3.352 19.202 309.2 7.17 54.41


**SO PARTDIAM COOL3_01-COOL3_26    10    15    20    25    35    65
**SO MASSFRAX COOL3_01-COOL3_26 0.010 0.150 0.320 0.230 0.170 0.120
**SO PARTDENS COOL3_01-COOL3_26   1.0   1.0   1.0   1.0   1.0   1.0

SO PARTDIAM COOL3_07    10    15    20    25    35    65    150
SO MASSFRAX COOL3_07 0.005  0.051 0.293 0.246 0.252 0.097 0.055
SO PARTDENS COOL3_07   1.0   1.0   1.0   1.0   1.0   1.0   1.0

**SO BUILDHGT COOL3_01    14.94    31.39    31.39    31.39    31.39    31.39
**SO BUILDHGT COOL3_01    31.39    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_01    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_01    14.94    14.94    14.94    14.94    14.94    14.94
```

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**SO BUILDHGT COOL3_01    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_01    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDWID COOL3_01    62.37    43.33    41.93    39.26    35.39    30.44
**SO BUILDWID COOL3_01    24.57   215.62   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_01   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDWID COOL3_01    62.37    97.33   129.33   157.40   180.68   198.48
**SO BUILDWID COOL3_01   210.24   215.62   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_01   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDLEN COOL3_01   215.91    23.30    29.34    34.48    38.57    41.50
**SO BUILDLEN COOL3_01    43.16    69.55    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_01   157.40   180.68   198.48   210.24   215.62   214.45
**SO BUILDLEN COOL3_01   215.91   211.84   201.33   184.70   162.46   135.28
**SO BUILDLEN COOL3_01   104.00    69.55    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_01   157.40   180.68   198.48   210.24   215.62   214.45
**SO XBADJ    COOL3_01 -207.86  -173.08  -177.42  -176.37  -108.73  -110.41
**SO XBADJ    COOL3_01 -108.73   -47.36   -11.22    -8.22    -8.70    -8.91
**SO XBADJ    COOL3_01   -8.85    -8.53    -7.95    -7.12    -6.08    -4.85
**SO XBADJ    COOL3_01   -8.05   -11.52   -14.64   -17.32   -19.47   -21.02
**SO XBADJ    COOL3_01  -21.94   -22.19   -21.77   -54.16   -88.63  -120.42
**SO XBADJ    COOL3_01 -148.54  -172.15  -190.53  -203.13  -209.54  -209.60
**SO YBADJ    COOL3_01  -22.97    21.76    -6.61   -34.77     9.05    -6.62
**SO YBADJ    COOL3_01  -22.09  -101.73  -102.37   -99.90   -94.40   -86.02
**SO YBADJ    COOL3_01  -75.03   -61.76   -46.62   -30.06   -12.58     5.27
**SO YBADJ    COOL3_01   22.97    39.97    55.75    69.84    81.81    91.29
**SO YBADJ    COOL3_01   98.00   101.73   102.37    99.90    94.40    86.02
**SO YBADJ    COOL3_01   75.03    61.76    46.62    30.06    12.58    -5.27
**
**
**SO BUILDHGT COOL3_02    14.94    31.39    31.39    31.39    31.39    31.39
**SO BUILDHGT COOL3_02    31.39    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_02    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_02    14.94    14.94    14.94    14.94    31.39    31.39
**SO BUILDHGT COOL3_02    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_02    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDWID COOL3_02    62.37    43.33    41.93    39.26    35.39    30.44
**SO BUILDWID COOL3_02    24.57   215.62   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_02   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDWID COOL3_02    62.37    97.33   129.33   157.40    35.39    30.44
**SO BUILDWID COOL3_02   210.24   215.62   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_02   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDLEN COOL3_02   215.91    23.30    29.34    34.48    38.57    41.50
**SO BUILDLEN COOL3_02    43.16    69.55    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_02   157.40   180.68   198.48   210.24   215.62   214.45
**SO BUILDLEN COOL3_02   215.91   211.84   201.33   184.70    38.57    41.50
**SO BUILDLEN COOL3_02   104.00    69.55    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_02   157.40   180.68   198.48   210.24   215.62   214.45
**SO XBADJ    COOL3_02 -189.62  -155.71  -161.45  -162.28   -96.96  -101.30
**SO XBADJ    COOL3_02 -102.56   -44.32   -11.41   -11.62   -15.22   -18.35
**SO XBADJ    COOL3_02  -20.92   -22.86   -24.10   -24.62   -24.38   -23.40
**SO XBADJ    COOL3_02  -26.29   -28.89   -30.61   -31.41    58.38    59.80
**SO XBADJ    COOL3_02  -28.11   -25.23   -21.58   -50.75   -82.11  -110.98
**SO XBADJ    COOL3_02 -136.47  -157.82  -174.37  -185.63  -191.24  -191.05
**SO YBADJ    COOL3_02  -19.56    28.28     2.83   -22.70    23.38     9.54
**SO YBADJ    COOL3_02   -4.59   -83.43   -83.82   -81.67   -77.03   -70.05
**SO YBADJ    COOL3_02  -60.94   -49.99   -37.51   -23.89    -9.55     5.08
**SO YBADJ    COOL3_02   19.56    33.45    46.31    57.77   -23.38    -9.54
**SO YBADJ    COOL3_02   80.51    83.43    83.82    81.67    77.03    70.05
**SO YBADJ    COOL3_02   60.94    49.99    37.51    23.89     9.55    -5.08
**
**
**SO BUILDHGT COOL3_03    14.94    31.39    31.39    31.39    14.94    31.39
**SO BUILDHGT COOL3_03    31.39    31.39    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_03    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_03    14.94    14.94    14.94    14.94    14.94    31.39
**SO BUILDHGT COOL3_03    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_03    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDWID COOL3_03    62.37    43.33    41.93    39.26   180.68    30.44
**SO BUILDWID COOL3_03    24.57    17.96   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_03   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDWID COOL3_03    62.37    97.33   129.33   157.40   180.68    30.44
**SO BUILDWID COOL3_03   210.24   215.62   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_03   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDLEN COOL3_03   215.91    23.30    29.34    34.48   162.46    41.50
**SO BUILDLEN COOL3_03    43.16    43.51    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_03   157.40   180.68   198.48   210.24   215.62   214.45
**SO BUILDLEN COOL3_03   215.91   211.84   201.33   184.70   162.46    41.50
**SO BUILDLEN COOL3_03   104.00    69.55    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_03   157.40   180.68   198.48   210.24   215.62   214.45
**SO XBADJ    COOL3_03 -174.47  -141.19  -148.00  -150.31  -121.09   -93.33
**SO XBADJ    COOL3_03  -96.98   -97.69   -11.05   -13.93   -20.12   -25.70
**SO XBADJ    COOL3_03  -30.50   -34.37   -37.19   -38.89   -39.40   -38.72
**SO XBADJ    COOL3_03  -41.44   -43.41   -44.06   -43.37   -41.37    51.83
**SO XBADJ    COOL3_03  -33.68   -28.24   -21.94   -48.44   -77.21  -103.63
**SO XBADJ    COOL3_03 -126.90  -146.32  -161.29  -171.36  -176.22  -175.73
**SO YBADJ    COOL3_03  -17.26    33.18    10.18   -13.13   -55.98    22.63
**SO YBADJ    COOL3_03    9.68    -3.56   -68.50   -66.52   -62.51   -56.60
**SO YBADJ    COOL3_03  -48.98   -39.86   -29.54   -18.31    -6.53     5.44
**SO YBADJ    COOL3_03   17.26    28.54    38.97    48.20    55.98   -22.63
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**SO YBADJ    COOL3_03   66.23   68.41   68.50   66.52   62.51   56.60
**SO YBADJ    COOL3_03   48.98   39.86   29.54   18.31    6.53   -5.44
**
**
**SO BUILDHGT COOL3_04   14.94   31.39   31.39   31.39   31.39   14.94
**SO BUILDHGT COOL3_04   14.94   31.39   31.39   31.39   14.94   14.94
**SO BUILDHGT COOL3_04   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_04   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_04   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_04   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDWID COOL3_04   62.37   43.33   41.93   39.26   35.39  198.48
**SO BUILDWID COOL3_04  210.24   17.96   10.80   16.56  211.84  201.33
**SO BUILDWID COOL3_04  184.70  162.46  135.28  104.00   69.55   32.99
**SO BUILDWID COOL3_04   62.37   97.33  129.33  157.40  180.68  198.48
**SO BUILDWID COOL3_04  210.24  215.62  214.45  215.91  211.84  201.33
**SO BUILDWID COOL3_04  184.70  162.46  135.28  104.00   69.55   32.99
**SO BUILDLEN COOL3_04  215.91   23.30   29.34   34.48   38.57  135.28
**SO BUILDLEN COOL3_04  104.00   43.51   42.54   43.42   97.33  129.33
**SO BUILDLEN COOL3_04  157.40  180.68  198.48  210.24  215.62  214.45
**SO BUILDLEN COOL3_04  215.91  211.84  201.33  184.70  162.46  135.28
**SO BUILDLEN COOL3_04  104.00   69.55   32.99   62.37   97.33  129.33
**SO BUILDLEN COOL3_04  157.40  180.68  198.48  210.24  215.62  214.45
**SO XBADJ    COOL3_04 -156.44 -166.90 -132.05 -136.15 -136.11  -87.81
**SO XBADJ    COOL3_04  -63.80  -94.25  -95.15  -94.75  -26.10  -34.59
**SO XBADJ    COOL3_04  -42.02  -48.17  -52.87  -55.95  -57.34  -56.98
**SO XBADJ    COOL3_04  -59.47  -60.66  -60.01  -57.54  -53.32  -47.48
**SO XBADJ    COOL3_04  -40.19  -31.69  -22.22  -45.55  -71.23  -94.74
**SO XBADJ    COOL3_04 -115.38 -132.51 -145.61 -154.29 -158.28 -157.47
**SO YBADJ    COOL3_04  -14.36   24.46   19.07   -1.60  -22.23  -46.37
**SO YBADJ    COOL3_04  -49.17   14.37    1.57  -11.29  -45.26  -40.65
**SO YBADJ    COOL3_04  -34.81  -27.91  -20.16  -11.81   -3.09    5.72
**SO YBADJ    COOL3_04   14.36   22.56   30.08   36.68   42.17   46.37
**SO YBADJ    COOL3_04   49.17   50.47   50.24   48.49   45.26   40.65
**SO YBADJ    COOL3_04   34.81   27.91   20.16   11.81    3.09   -5.72
**
**
**SO BUILDHGT COOL3_05   14.94   31.39   31.39   31.39   31.39   31.39
**SO BUILDHGT COOL3_05   14.94   14.94   14.94   31.39   31.39   31.39
**SO BUILDHGT COOL3_05   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_05   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_05   14.94   14.94   14.94   14.94   14.94   31.39
**SO BUILDHGT COOL3_05   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDWID COOL3_05   62.37   43.33   41.93   39.26   35.39   30.44
**SO BUILDWID COOL3_05  210.24  215.62  214.45   16.56   23.30   29.34
**SO BUILDWID COOL3_05  184.70  162.46  135.28  104.00   69.55   32.99
**SO BUILDWID COOL3_05   62.37   97.33  129.33  157.40  180.68  198.48
**SO BUILDWID COOL3_05  210.24  215.62  214.45  215.91  211.84   29.34
**SO BUILDWID COOL3_05  184.70  162.46  135.28  104.00   69.55   32.99
**SO BUILDLEN COOL3_05  215.91   23.30   29.34   34.48   38.57   41.50
**SO BUILDLEN COOL3_05  104.00   69.55   32.99   43.42   43.33   41.93
**SO BUILDLEN COOL3_05  157.40  180.68  198.48  210.24  215.62  214.45
**SO BUILDLEN COOL3_05  215.91  211.84  201.33  184.70  162.46  135.28
**SO BUILDLEN COOL3_05  104.00   69.55   32.99   62.37   97.33   41.93
**SO BUILDLEN COOL3_05  157.40  180.68  198.48  210.24  215.62  214.45
**SO XBADJ    COOL3_05 -140.63 -151.68 -117.88 -123.46 -125.29 -123.32
**SO XBADJ    COOL3_05  -57.65  -34.35  -10.01  -96.76  -96.36  -93.04
**SO XBADJ    COOL3_05  -51.67  -59.88  -66.27  -70.65  -72.88  -72.90
**SO XBADJ    COOL3_05  -75.28  -75.88  -74.18  -70.22  -64.13  -56.10
**SO XBADJ    COOL3_05  -46.35  -35.20  -22.98  -43.53  -66.50   51.11
**SO XBADJ    COOL3_05 -105.73 -120.80 -132.21 -139.59 -142.74 -141.55
**SO YBADJ    COOL3_05  -12.35   29.19   26.37    8.05  -10.52  -28.77
**SO YBADJ    COOL3_05  -34.47  -34.93  -34.32    4.52   -8.58  -21.42
**SO YBADJ    COOL3_05  -22.13  -17.10  -11.55   -5.65    0.42    6.48
**SO YBADJ    COOL3_05   12.35   17.83   22.78   27.03   30.46   32.97
**SO YBADJ    COOL3_05   34.47   34.93   34.32   32.68   30.04   21.42
**SO YBADJ    COOL3_05   22.13   17.10   11.55    5.65   -0.42   -6.48
**
**
**SO BUILDHGT COOL3_06   14.94   31.39   31.39   31.39   31.39   31.39
**SO BUILDHGT COOL3_06   14.94   14.94   14.94   14.94   31.39   31.39
**SO BUILDHGT COOL3_06   31.39   31.39   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_06   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_06   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_06   31.39   31.39   14.94   14.94   14.94   14.94
**SO BUILDWID COOL3_06   62.37   43.33   41.93   39.26   35.39   30.44
**SO BUILDWID COOL3_06  210.24  215.62  214.45  215.91   23.30   29.34
**SO BUILDWID COOL3_06   34.48   38.57  135.28  104.00   69.55   32.99
**SO BUILDWID COOL3_06   62.37   97.33  129.33  157.40  180.68  198.48
**SO BUILDWID COOL3_06  210.24  215.62  214.45  215.91  211.84  201.33
**SO BUILDWID COOL3_06   34.48   38.57  135.28  104.00   69.55   32.99
**SO BUILDLEN COOL3_06  215.91   23.30   29.34   34.48   38.57   41.50
**SO BUILDLEN COOL3_06  104.00   69.55   32.99   62.37   43.33   41.93
**SO BUILDLEN COOL3_06   39.26   35.39  198.48  210.24  215.62  214.45
**SO BUILDLEN COOL3_06  215.91  211.84  201.33  184.70  162.46  135.28
**SO BUILDLEN COOL3_06  104.00   69.55   32.99   62.37   97.33  129.33
**SO BUILDLEN COOL3_06   39.26   35.39  198.48  210.24  215.62  214.45
**SO XBADJ    COOL3_06 -123.83 -135.69 -103.18 -110.50 -114.46 -114.95
**SO XBADJ    COOL3_06  -51.99  -31.59  -10.22  -22.02 -102.41 -101.77
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**SO XBADJ     COOL3_06   -98.04   -91.33   -81.19   -86.79   -89.76   -90.00
**SO XBADJ     COOL3_06   -92.08   -91.88   -88.89   -83.19   -74.97   -64.46
**SO XBADJ     COOL3_06   -52.00   -37.96   -22.77   -40.36   -60.45   -78.71
**SO XBADJ     COOL3_06    58.78    55.94  -117.29  -123.45  -125.86  -124.45
**SO YBADJ     COOL3_06    -9.17    35.23    35.10    19.20     2.71   -13.85
**SO YBADJ     COOL3_06   -18.33   -18.05   -17.22   -15.87     7.42    -6.72
**SO YBADJ     COOL3_06   -20.65   -33.95    -3.18     0.00     3.19     6.27
**SO YBADJ     COOL3_06     9.17    11.79    14.04    15.88    17.23    18.05
**SO YBADJ     COOL3_06    18.33    18.05    17.22    15.87    14.04    11.78
**SO YBADJ     COOL3_06    20.65    33.95     3.18     0.00    -3.19    -6.27


SO BUILDHGT COOL3_07    14.94    14.94    31.39    31.39    31.39    31.39
SO BUILDHGT COOL3_07    31.39    14.94    14.94    14.94    31.39    31.39
SO BUILDHGT COOL3_07    31.39    31.39    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_07    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_07    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDHGT COOL3_07    14.94    14.94    14.94    14.94    14.94    14.94
SO BUILDWID COOL3_07    62.37    97.33    41.93    39.26    35.39    30.44
SO BUILDWID COOL3_07    24.57   215.62   214.45   215.91    23.30    29.34
SO BUILDWID COOL3_07    34.48    38.57   135.28   104.00    69.55    32.99
SO BUILDWID COOL3_07    62.37    97.33   129.33   157.40   180.68   198.48
SO BUILDWID COOL3_07   210.24   215.62   214.45   215.91   211.84   201.33
SO BUILDWID COOL3_07   184.70   162.46   135.28   104.00    69.55    32.99
SO BUILDLEN COOL3_07   215.91   211.84    29.34    34.48    38.57    41.50
SO BUILDLEN COOL3_07    43.16    69.55    32.99    62.37    43.33    41.93
SO BUILDLEN COOL3_07    39.26    35.39   198.48   210.24   215.62   214.45
SO BUILDLEN COOL3_07   215.91   211.84   201.33   184.70   162.46   135.28
SO BUILDLEN COOL3_07   104.00    69.55    32.99    62.37    97.33   129.33
SO BUILDLEN COOL3_07   157.40   180.68   198.48   210.24   215.62   214.45
SO XBADJ    COOL3_07  -109.26  -105.92  -129.86   -98.77  -104.45  -106.95
SO XBADJ    COOL3_07  -106.21   -28.28    -9.45   -23.81  -106.70  -108.43
SO XBADJ    COOL3_07  -106.87  -102.06   -93.50  -100.30  -104.06  -104.66
SO XBADJ    COOL3_07  -106.66  -105.92  -101.97   -94.91   -84.98   -72.46
SO XBADJ    COOL3_07   -57.74   -41.27   -23.54   -38.57   -56.16   -72.05
SO XBADJ    COOL3_07   -85.74   -96.83  -104.98  -109.94  -111.56  -109.79
SO YBADJ    COOL3_07    -7.38    -7.50    19.82    28.03    13.45    -1.54
SO YBADJ    COOL3_07   -16.49    -3.75    -2.56    -1.30    21.46     6.36
SO YBADJ    COOL3_07    -8.92   -23.94     4.82     5.74     6.49     7.04
SO YBADJ    COOL3_07     7.38     7.50     7.38     7.04     6.49     5.74
SO YBADJ    COOL3_07     4.82     3.75     2.56     1.30     0.00    -1.30
SO YBADJ    COOL3_07    -2.56    -3.75    -4.82    -5.74    -6.49    -7.04


**SO BUILDHGT COOL3_08    14.94    14.94    31.39    31.39    31.39    31.39
**SO BUILDHGT COOL3_08    31.39    31.39    14.94    14.94    14.94    31.39
**SO BUILDHGT COOL3_08    31.39    31.39    31.39    14.94    14.94    14.94
**SO BUILDHGT COOL3_08    14.94    14.94    14.94    14.94    31.39    31.39
**SO BUILDHGT COOL3_08    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_08    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDWID COOL3_08    62.37    97.33    41.93    39.26    35.39    30.44
**SO BUILDWID COOL3_08    24.57    17.96   214.45   215.91   211.84    29.34
**SO BUILDWID COOL3_08    34.48    38.57    41.50   104.00    69.55    32.99
**SO BUILDWID COOL3_08    62.37    97.33   129.33   157.40    35.39    30.44
**SO BUILDWID COOL3_08   210.24   215.62   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_08   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDLEN COOL3_08   215.91   211.84    29.34    34.48    38.57    41.50
**SO BUILDLEN COOL3_08    43.16    43.51    32.99    62.37    97.33    41.93
**SO BUILDLEN COOL3_08    39.26    35.39    30.44   210.24   215.62   214.45
**SO BUILDLEN COOL3_08   215.91   211.84   201.33   184.70    38.57    41.50
**SO BUILDLEN COOL3_08   104.00    69.55    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_08   157.40   180.68   198.48   210.24   215.62   214.45
**SO XBADJ    COOL3_08   -91.91   -89.23  -114.33  -120.23   -92.62  -121.01
**SO XBADJ    COOL3_08   -99.50   -98.44    -8.68   -26.08   -46.42  -116.51
**SO XBADJ    COOL3_08  -117.52  -114.96  -108.91  -116.47  -121.14  -122.14
**SO XBADJ    COOL3_08  -124.00  -122.61  -117.49  -108.80    54.05    56.05
**SO XBADJ    COOL3_08   -64.44   -45.06   -24.31   -36.29   -50.91   -63.97
**SO XBADJ    COOL3_08   -75.10   -83.94   -90.23   -93.78   -94.48   -92.31
**SO YBADJ    COOL3_08    -5.10    -2.24    27.90    10.17    26.35   -25.67
**SO YBADJ    COOL3_08    -0.33   -13.85    14.92    16.05    16.69    21.89
**SO YBADJ    COOL3_08     4.96   -12.11   -28.82    12.44    10.29     7.81
**SO YBADJ    COOL3_08     5.10     2.24    -0.69    -3.60   -26.35   -13.21
**SO YBADJ    COOL3_08   -11.35   -13.33   -14.92   -16.05   -16.69   -16.83
**SO YBADJ    COOL3_08   -16.45   -15.57   -14.23   -12.44   -10.29    -7.81
**
**
**SO BUILDHGT COOL3_09    14.94    14.94    31.39    31.39    31.39    31.39
**SO BUILDHGT COOL3_09    31.39    31.39    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_09    31.39    31.39    31.39    14.94    14.94    14.94
**SO BUILDHGT COOL3_09    14.94    14.94    14.94    14.94    14.94    31.39
**SO BUILDHGT COOL3_09    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_09    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDWID COOL3_09    62.37    97.33    41.93    39.26    35.39    30.44
**SO BUILDWID COOL3_09    24.57    17.96   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_09    34.48    38.57    41.50   104.00    69.55    32.99
**SO BUILDWID COOL3_09    62.37    97.33   129.33   157.40   180.68    30.44
**SO BUILDWID COOL3_09   210.24   215.62   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_09   184.70   162.46   135.28   104.00    69.55    32.99
```

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**SO BUILDLEN COOL3_09   215.91   211.84    29.34    34.48    38.57    41.50
**SO BUILDLEN COOL3_09    43.16    43.51    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_09    39.26    35.39    30.44   210.24   215.62   214.45
**SO BUILDLEN COOL3_09   215.91   211.84   201.33   184.70   162.46    41.50
**SO BUILDLEN COOL3_09   104.00    69.55    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_09   157.40   180.68   198.48   210.24   215.62   214.45
**SO XBADJ    COOL3_09   -76.06   -74.15  -100.47  -108.02  -112.28  -113.13
**SO XBADJ    COOL3_09   -94.19   -95.85    -8.90   -29.10   -52.15   -73.61
**SO XBADJ    COOL3_09  -128.05  -127.46  -122.98  -131.70  -137.07  -138.27
**SO XBADJ    COOL3_09  -139.85  -137.69  -131.35  -121.01  -107.00    48.17
**SO XBADJ    COOL3_09   -69.75   -47.64   -24.09   -33.27   -45.18   -55.72
**SO XBADJ    COOL3_09   -64.56   -71.44   -76.15   -78.54   -78.55   -76.18
**SO YBADJ    COOL3_09    -2.09     3.48    36.15    20.70     4.62   -11.59
**SO YBADJ    COOL3_09    14.91     2.07    31.05    31.89    31.77    30.68
**SO YBADJ    COOL3_09    17.18    -1.91   -20.94    17.75    12.87     7.59
**SO YBADJ    COOL3_09     2.09    -3.48    -8.95   -14.14   -18.90   -27.29
**SO YBADJ    COOL3_09   -26.58   -29.26   -31.05   -31.89   -31.77   -30.68
**SO YBADJ    COOL3_09   -28.66   -25.77   -22.10   -17.75   -12.87    -7.59
**
**
**SO BUILDHGT COOL3_10    14.94    14.94    14.94    31.39    31.39    31.39
**SO BUILDHGT COOL3_10    31.39    31.39    31.39    31.39    31.39    14.94
**SO BUILDHGT COOL3_10    31.39    31.39    31.39    31.39    14.94    14.94
**SO BUILDHGT COOL3_10    14.94    14.94    14.94    31.39    14.94    14.94
**SO BUILDHGT COOL3_10    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_10    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDWID COOL3_10    62.37    97.33   129.33    39.26    35.39    30.44
**SO BUILDWID COOL3_10    24.57    17.96    10.80    16.56    23.30   201.33
**SO BUILDWID COOL3_10    34.48    38.57    41.50    43.16    69.55    32.99
**SO BUILDWID COOL3_10    62.37    97.33   129.33    39.26   180.68   198.48
**SO BUILDWID COOL3_10   210.24   215.62   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_10   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDLEN COOL3_10   215.91   211.84   201.33    34.48    38.57    41.50
**SO BUILDLEN COOL3_10    43.16    43.51    42.54    43.42    43.33   129.33
**SO BUILDLEN COOL3_10    39.26    35.39    30.44    24.57   215.62   214.45
**SO BUILDLEN COOL3_10   215.91   211.84   201.33    34.48   162.46   135.28
**SO BUILDLEN COOL3_10   104.00    69.55    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_10   157.40   180.68   198.48   210.24   215.62   214.45
**SO XBADJ    COOL3_10   -60.33   -59.08   -56.04   -95.64  -101.83  -104.93
**SO XBADJ    COOL3_10  -104.84   -92.81   -94.32   -94.54   -92.06   -81.33
**SO XBADJ    COOL3_10  -138.08  -139.48  -136.64  -129.65  -152.71  -154.20
**SO XBADJ    COOL3_10  -155.59  -152.76  -145.28    61.16  -117.46   -97.95
**SO XBADJ    COOL3_10   -75.46   -50.69   -24.37   -30.78   -40.00   -47.99
**SO XBADJ    COOL3_10   -54.53   -59.42   -62.49   -63.67   -62.91   -60.25
**SO YBADJ    COOL3_10     0.40     8.67    16.67    30.73    16.65     2.06
**SO YBADJ    COOL3_10   -12.59    17.71     5.10    -7.66   -20.19    44.62
**SO YBADJ    COOL3_10    29.56     8.54   -12.73   -33.62    15.91     7.87
**SO YBADJ    COOL3_10    -0.40    -8.67   -16.67   -30.73   -30.93   -36.75
**SO YBADJ    COOL3_10   -41.45   -44.90   -46.98   -47.63   -46.84   -44.62
**SO YBADJ    COOL3_10   -41.05   -36.23   -30.31   -23.47   -15.91    -7.87
**
**
**SO BUILDHGT COOL3_11    14.94    14.94    14.94    14.94    31.39    31.39
**SO BUILDHGT COOL3_11    31.39    31.39    14.94    31.39    31.39    31.39
**SO BUILDHGT COOL3_11    31.39    31.39    31.39    31.39    14.94    14.94
**SO BUILDHGT COOL3_11    14.94    14.94    14.94    14.94    31.39    31.39
**SO BUILDHGT COOL3_11    14.94    14.94    14.94    14.94    14.94    31.39
**SO BUILDHGT COOL3_11    31.39    14.94    14.94    14.94    14.94    14.94
**SO BUILDWID COOL3_11    62.37    97.33   129.33   157.40    35.39    30.44
**SO BUILDWID COOL3_11    24.57    17.96   214.45    16.56    23.30    29.34
**SO BUILDWID COOL3_11    34.48    38.57    41.50    43.16    69.55    32.99
**SO BUILDWID COOL3_11    62.37    97.33   129.33   157.40    35.39    30.44
**SO BUILDWID COOL3_11   210.24   215.62   214.45   215.91   211.84    29.34
**SO BUILDWID COOL3_11    34.48   162.46   135.28   104.00    69.55    32.99
**SO BUILDLEN COOL3_11   215.91   211.84   201.33   184.70    38.57    41.50
**SO BUILDLEN COOL3_11    43.16    43.51    32.99    43.42    43.33    41.93
**SO BUILDLEN COOL3_11    39.26    35.39    30.44    24.57   215.62   214.45
**SO BUILDLEN COOL3_11   215.91   211.84   201.33   184.70    38.57    41.50
**SO BUILDLEN COOL3_11   104.00    69.55    32.99    62.37    97.33    41.93
**SO BUILDLEN COOL3_11    39.26   180.68   198.48   210.24   215.62   214.45
**SO XBADJ    COOL3_11   -44.59   -44.02   -42.11   -38.92   -91.37   -96.72
**SO XBADJ    COOL3_11   -99.12   -98.52    -8.34   -97.03   -97.24   -94.51
**SO XBADJ    COOL3_11   -88.89  -151.50  -150.30  -144.52  -168.35  -170.13
**SO XBADJ    COOL3_11  -171.32  -167.82  -159.22  -145.78    52.80    55.22
**SO XBADJ    COOL3_11   -81.18   -53.73   -24.65   -28.29   -34.81    52.57
**SO XBADJ    COOL3_11    49.64   -47.39   -48.84   -48.80   -47.28   -44.32
**SO YBADJ    COOL3_11     2.89    13.85    24.39    34.19    28.67    15.72
**SO YBADJ    COOL3_11     2.29   -11.21    62.91     8.08    -5.13   -18.17
**SO YBADJ    COOL3_11   -30.67    19.00    -4.53   -27.91    18.95     8.15
**SO YBADJ    COOL3_11    -2.89   -13.85   -24.39   -34.19   -28.67   -15.72
**SO YBADJ    COOL3_11   -56.32   -60.54   -62.91   -63.37   -61.90    18.17
**SO YBADJ    COOL3_11    30.67   -46.68   -38.51   -29.18   -18.95    -8.15
**
**
**SO BUILDHGT COOL3_12    14.94    14.94    14.94    14.94    14.94    31.39
**SO BUILDHGT COOL3_12    31.39    31.39    31.39    14.94    31.39    31.39
**SO BUILDHGT COOL3_12    31.39    31.39    31.39    31.39    14.94    14.94
**SO BUILDHGT COOL3_12    14.94    14.94    14.94    14.94    14.94    31.39
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**SO BUILDHGT COOL3_12    31.39   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_12    31.39   31.39   14.94   14.94   14.94   14.94
**SO BUILDWID COOL3_12    62.37   97.33  129.33  157.40  180.68   30.44
**SO BUILDWID COOL3_12    24.57   17.96   10.80  215.91   23.30   29.34
**SO BUILDWID COOL3_12    34.48   38.57   41.50   43.16   69.55   32.99
**SO BUILDWID COOL3_12    62.37   97.33  129.33  157.40  180.68   30.44
**SO BUILDWID COOL3_12    24.57  215.62  214.45  215.91  211.84  201.33
**SO BUILDWID COOL3_12    34.48   38.57  135.28  104.00   69.55   32.99
**SO BUILDLEN COOL3_12   215.91  211.84  201.33  184.70  162.46   41.50
**SO BUILDLEN COOL3_12    43.16   43.51   42.54   62.37   43.33   41.93
**SO BUILDLEN COOL3_12    39.26   35.39   30.44   24.57  215.62  214.45
**SO BUILDLEN COOL3_12   215.91  211.84  201.33  184.70  162.46   41.50
**SO BUILDLEN COOL3_12    43.16   69.55   32.99   62.37   97.33  129.33
**SO BUILDLEN COOL3_12    39.26   35.39  198.48  210.24  215.62  214.45
**SO XBADJ    COOL3_12   -27.84  -27.79  -26.90  -25.19  -22.71  -87.14
**SO XBADJ    COOL3_12   -92.09  -94.24  -93.53  -35.62 -101.67 -101.68
**SO XBADJ    COOL3_12   -98.60 -163.45 -164.12 -159.80 -184.61 -186.89
**SO XBADJ    COOL3_12 -188.07 -184.05 -174.43 -159.51 -139.75   45.64
**SO XBADJ    COOL3_12    48.93  -58.01  -26.04  -26.75  -30.38  -33.10
**SO XBADJ    COOL3_12    59.35   57.14  -35.02  -33.52  -31.01  -27.56
**SO YBADJ    COOL3_12     4.44   18.28   31.57   43.90   54.89   29.54
**SO YBADJ    COOL3_12    17.56    5.05   -7.61   80.11   11.10   -2.96
**SO YBADJ    COOL3_12   -16.93   30.84    5.06  -20.87   23.23    9.54
**SO YBADJ    COOL3_12    -4.44  -18.28  -31.57  -43.90  -54.89  -29.54
**SO YBADJ    COOL3_12   -17.56  -76.80  -79.67  -80.11  -78.13  -73.77
**SO YBADJ    COOL3_12    16.93   30.39  -48.10  -36.22  -23.23   -9.54
**
**
**SO BUILDHGT COOL3_13    14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_13    14.94   14.94   31.39   31.39   31.39   31.39
**SO BUILDHGT COOL3_13    31.39   31.39   31.39   31.39   14.94   14.94
**SO BUILDHGT COOL3_13    14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_13    14.94   14.94   14.94   14.94   14.94   31.39
**SO BUILDHGT COOL3_13    14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDWID COOL3_13    62.37   97.33  129.33  157.40  180.68  198.48
**SO BUILDWID COOL3_13   210.24  215.62   10.80   16.56   23.30   29.34
**SO BUILDWID COOL3_13    34.48   38.57   41.50   43.16   69.55   32.99
**SO BUILDWID COOL3_13    62.37   97.33  129.33  157.40  180.68  198.48
**SO BUILDWID COOL3_13   210.24  215.62  214.45  215.91  211.84   29.34
**SO BUILDWID COOL3_13   184.70  162.46  135.28  104.00   69.55   32.99
**SO BUILDLEN COOL3_13   215.91  211.84  201.33  184.70  162.46  135.28
**SO BUILDLEN COOL3_13   104.00   69.55   42.54   43.42   43.33   41.93
**SO BUILDLEN COOL3_13    39.26   35.39   30.44   24.57  215.62  214.45
**SO BUILDLEN COOL3_13   215.91  211.84  201.33  184.70  162.46  135.28
**SO BUILDLEN COOL3_13   104.00   69.55   32.99   62.37   97.33   41.93
**SO BUILDLEN COOL3_13   157.40  180.68  198.48  210.24  215.62  214.45
**SO XBADJ    COOL3_13   -10.43  -11.12  -11.48  -11.49  -11.15  -10.47
**SO XBADJ    COOL3_13    -9.47   -8.19  -93.23  -94.32  -92.71 -110.24
**SO XBADJ    COOL3_13 -109.71 -105.84 -179.23 -176.26 -201.92 -204.52
**SO XBADJ    COOL3_13 -205.48 -200.72 -189.85 -173.21 -151.31 -124.82
**SO XBADJ    COOL3_13   -94.53  -61.36  -26.34  -23.99  -24.64   46.36
**SO XBADJ    COOL3_13   -23.70  -22.13  -19.90  -17.06  -13.70   -9.93
**SO YBADJ    COOL3_13     7.20   24.03   40.12   55.00   68.21   79.34
**SO YBADJ    COOL3_13    88.06   94.11   10.02   -2.63  -15.20   12.46
**SO YBADJ    COOL3_13    -3.24  -18.83   14.13  -14.56   26.59    9.84
**SO YBADJ    COOL3_13    -7.20  -24.03  -40.12  -55.00  -68.21  -79.34
**SO YBADJ    COOL3_13   -88.06  -94.11  -97.30  -97.53  -94.80   27.31
**SO YBADJ    COOL3_13   -80.86  -70.08  -57.17  -42.53  -26.59   -9.84
**
**
**SO BUILDHGT COOL3_14    14.94   31.39   31.39   31.39   31.39   31.39
**SO BUILDHGT COOL3_14    31.39   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_14    14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_14    14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_14    14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_14    14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDWID COOL3_14    62.37   43.33   41.93   39.26   35.39   30.44
**SO BUILDWID COOL3_14    24.57  215.62  214.45  215.91  211.84  201.33
**SO BUILDWID COOL3_14   184.70  162.46  135.28  104.00   69.55   32.99
**SO BUILDWID COOL3_14    62.37   97.33  129.33  157.40  180.68  198.48
**SO BUILDWID COOL3_14   210.24  215.62  214.45  215.91  211.84  201.33
**SO BUILDWID COOL3_14   184.70  162.46  135.28  104.00   69.55   32.99
**SO BUILDLEN COOL3_14   215.91   23.30   29.34   34.48   38.57   41.50
**SO BUILDLEN COOL3_14    43.16   69.55   32.99   62.37   97.33  129.33
**SO BUILDLEN COOL3_14   157.40  180.68  198.48  210.24  215.62  214.45
**SO BUILDLEN COOL3_14   215.91  211.84  201.33  184.70  162.46  135.28
**SO BUILDLEN COOL3_14   104.00   69.55   32.99   62.37   97.33  129.33
**SO BUILDLEN COOL3_14   157.40  180.68  198.48  210.24  215.62  214.45
**SO XBADJ    COOL3_14 -210.60 -178.50 -185.35 -186.57 -120.90 -124.17
**SO XBADJ    COOL3_14 -123.66  -63.01  -27.12  -23.88  -23.64  -22.69
**SO XBADJ    COOL3_14   -21.05  -18.76  -15.91  -12.58   -8.86   -4.87
**SO XBADJ    COOL3_14    -5.31   -6.10   -6.71   -7.11   -7.30   -7.26
**SO XBADJ    COOL3_14    -7.01   -6.54   -5.87  -38.50  -73.69 -106.64
**SO XBADJ    COOL3_14 -136.35 -161.92 -182.57 -197.67 -206.76 -209.58
**SO YBADJ    COOL3_14    -7.31   36.70    7.17  -22.57   19.28    1.35
**SO YBADJ    COOL3_14   -16.63  -98.95 -102.35 -102.64  -99.81  -93.95
**SO YBADJ    COOL3_14   -85.24  -73.93  -60.38  -44.99  -28.24  -10.63
**SO YBADJ    COOL3_14     7.31   25.02   41.97   57.65   71.58   83.33
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**SO YBADJ      COOL3_14    92.55    98.95   102.35   102.64    99.81    93.95
**SO YBADJ      COOL3_14    85.24    73.93    60.38    44.99    28.24    10.63
**
**
**SO BUILDHGT COOL3_15    14.94    14.94    31.39    31.39    31.39    31.39
**SO BUILDHGT COOL3_15    31.39    31.39    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_15    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_15    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_15    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_15    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDWID COOL3_15    62.37    97.33    41.93    39.26    35.39    30.44
**SO BUILDWID COOL3_15    24.57    17.96   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_15   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDWID COOL3_15    62.37    97.33   129.33   157.40   180.68   198.48
**SO BUILDWID COOL3_15   210.24   215.62   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_15   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDLEN COOL3_15   215.91   211.84    29.34    34.48    38.57    41.50
**SO BUILDLEN COOL3_15    43.16    43.51    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_15   157.40   180.68   198.48   210.24   215.62   214.45
**SO BUILDLEN COOL3_15   215.91   211.84   201.33   184.70   162.46   135.28
**SO BUILDLEN COOL3_15   104.00    69.55    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_15   157.40   180.68   198.48   210.24   215.62   214.45
**SO XBADJ      COOL3_15 -192.66 -188.56 -169.48 -172.48 -109.01 -114.84
**SO XBADJ      COOL3_15 -117.18 -115.97   -26.84   -26.76   -29.59   -31.53
**SO XBADJ      COOL3_15   -32.51   -32.50   -31.51   -29.55   -26.70   -23.04
**SO XBADJ      COOL3_15   -23.26   -23.27   -22.59   -21.21   -19.19   -16.59
**SO XBADJ      COOL3_15   -13.48    -9.97    -6.15   -35.62   -67.73   -97.79
**SO XBADJ      COOL3_15 -124.88 -148.18 -166.97 -180.69 -188.92 -191.41
**SO YBADJ      COOL3_15    -4.43   -19.07    16.02   -11.11    33.02    16.94
**SO YBADJ      COOL3_15     0.34   -16.26   -84.18   -84.70   -82.64   -78.08
**SO YBADJ      COOL3_15   -71.14   -62.04   -51.05   -38.51   -24.81   -10.35
**SO YBADJ      COOL3_15     4.43    19.07    33.13    46.19    57.84    67.73
**SO YBADJ      COOL3_15    75.57    81.11    84.18    84.70    82.64    78.08
**SO YBADJ      COOL3_15    71.14    62.04    51.05    38.51    24.81    10.35
**
**
**SO BUILDHGT COOL3_16    14.94    14.94    31.39    31.39    31.39    31.39
**SO BUILDHGT COOL3_16    31.39    31.39    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_16    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_16    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_16    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_16    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDWID COOL3_16    62.37    97.33    41.93    39.26    35.39    30.44
**SO BUILDWID COOL3_16    24.57    17.96   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_16   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDWID COOL3_16    62.37    97.33   129.33   157.40   180.68   198.48
**SO BUILDWID COOL3_16   210.24   215.62   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_16   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDLEN COOL3_16   215.91   211.84    29.34    34.48    38.57    41.50
**SO BUILDLEN COOL3_16    43.16    43.51    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_16   157.40   180.68   198.48   210.24   215.62   214.45
**SO BUILDLEN COOL3_16   215.91   211.84   201.33   184.70   162.46   135.28
**SO BUILDLEN COOL3_16   104.00    69.55    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_16   157.40   180.68   198.48   210.24   215.62   214.45
**SO XBADJ      COOL3_16 -176.99 -173.48 -155.43 -159.91 -159.52 -106.30
**SO XBADJ      COOL3_16 -111.08 -112.49   -26.09   -28.76   -34.29   -38.77
**SO XBADJ      COOL3_16   -42.08   -44.11   -44.80   -44.13   -42.11   -38.82
**SO XBADJ      COOL3_16   -38.93   -38.36   -36.63   -33.78   -29.91   -25.13
**SO XBADJ      COOL3_16   -19.59   -13.45    -6.90   -33.61   -63.04   -90.55
**SO XBADJ      COOL3_16 -115.32 -136.57 -153.68 -166.12 -173.51 -175.63
**SO YBADJ      COOL3_16    -2.43   -14.38    23.26    -1.54   -26.29    30.23
**SO YBADJ      COOL3_16    14.92    -0.85   -68.40   -69.03   -67.56   -64.04
**SO YBADJ      COOL3_16   -58.57   -51.32   -42.51   -32.41   -21.33    -9.60
**SO YBADJ      COOL3_16     2.43    14.38    25.89    36.62    46.23    54.44
**SO YBADJ      COOL3_16    61.00    65.70    68.40    69.03    67.56    64.04
**SO YBADJ      COOL3_16    58.57    51.32    42.51    32.41    21.33     9.60
**
**
**SO BUILDHGT COOL3_17    14.94    14.94    31.39    31.39    31.39    14.94
**SO BUILDHGT COOL3_17    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_17    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_17    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_17    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_17    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDWID COOL3_17    62.37    97.33    41.93    39.26    35.39   198.48
**SO BUILDWID COOL3_17   210.24   215.62   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_17   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDWID COOL3_17    62.37    97.33   129.33   157.40   180.68   198.48
**SO BUILDWID COOL3_17   210.24   215.62   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_17   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDLEN COOL3_17   215.91   211.84    29.34    34.48    38.57   135.28
**SO BUILDLEN COOL3_17   104.00    69.55    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_17   157.40   180.68   198.48   210.24   215.62   214.45
**SO BUILDLEN COOL3_17   215.91   211.84   201.33   184.70   162.46   135.28
**SO BUILDLEN COOL3_17   104.00    69.55    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_17   157.40   180.68   198.48   210.24   215.62   214.45
**SO XBADJ      COOL3_17 -159.22 -156.40 -139.55 -145.70 -147.42 -100.54
**SO XBADJ      COOL3_17   -77.57   -52.24   -25.32   -31.11   -39.69   -47.06
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**SO XBADJ     COOL3_17  -53.00  -57.33  -59.92  -60.68  -59.61  -56.72
**SO XBADJ     COOL3_17  -56.69  -55.44  -52.51  -47.99  -42.01  -34.75
**SO XBADJ     COOL3_17  -26.43  -17.31   -7.67  -31.26  -57.64  -82.27
**SO XBADJ     COOL3_17 -104.40 -123.36 -138.56 -149.56 -156.01 -157.73
**SO YBADJ     COOL3_17   -0.08   -8.98   31.54    9.38  -13.07  -39.32
**SO YBADJ     COOL3_17  -44.44  -48.20  -50.50  -51.27  -50.48  -48.15
**SO YBADJ     COOL3_17  -44.36  -39.22  -32.90  -25.57  -17.46   -8.83
**SO YBADJ     COOL3_17    0.08    8.98   17.61   25.70   33.01   39.32
**SO YBADJ     COOL3_17   44.44   48.20   50.50   51.27   50.48   48.15
**SO YBADJ     COOL3_17   44.36   39.22   32.90   25.57   17.46    8.83
**
**
**SO BUILDHGT COOL3_18   14.94   14.94   31.39   31.39   31.39   31.39
**SO BUILDHGT COOL3_18   14.94   14.94   14.94   31.39   31.39   31.39
**SO BUILDHGT COOL3_18   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_18   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_18   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_18   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDWID COOL3_18   62.37   97.33   41.93   39.26   35.39   30.44
**SO BUILDWID COOL3_18  210.24  215.62  214.45   16.56   23.30   29.34
**SO BUILDWID COOL3_18  184.70  162.46  135.28  104.00   69.55   32.99
**SO BUILDWID COOL3_18   62.37   97.33  129.33  157.40  180.68  198.48
**SO BUILDWID COOL3_18  210.24  215.62  214.45  215.91  211.84  201.33
**SO BUILDWID COOL3_18  184.70  162.46  135.28  104.00   69.55   32.99
**SO BUILDLEN COOL3_18  215.91  211.84   29.34   34.48   38.57   41.50
**SO BUILDLEN COOL3_18  104.00   69.55   32.99   43.42   43.33   41.93
**SO BUILDLEN COOL3_18  157.40  180.68  198.48  210.24  215.62  214.45
**SO BUILDLEN COOL3_18  215.91  211.84  201.33  184.70  162.46  135.28
**SO BUILDLEN COOL3_18  104.00   69.55   32.99   62.37   97.33  129.33
**SO BUILDLEN COOL3_18  157.40  180.68  198.48  210.24  215.62  214.45
**SO XBADJ     COOL3_18 -143.28 -141.04 -165.02 -132.91 -136.52 -135.98
**SO XBADJ     COOL3_18  -71.36  -48.70  -24.56 -111.07 -110.00 -105.58
**SO XBADJ     COOL3_18  -62.74  -69.14  -73.44  -75.52  -75.29  -72.78
**SO XBADJ     COOL3_18  -72.64  -70.79  -66.80  -60.78  -52.91  -43.43
**SO XBADJ     COOL3_18  -32.64  -20.85   -8.43  -29.22  -52.86  -74.90
**SO XBADJ     COOL3_18  -94.66 -111.54 -125.03 -134.73 -140.33 -141.67
**SO YBADJ     COOL3_18    1.96   -4.20   16.97   19.12   -1.26  -21.60
**SO YBADJ     COOL3_18  -29.61  -32.52  -34.44    1.88  -13.67  -28.80
**SO YBADJ     COOL3_18  -31.57  -28.32  -24.21  -19.36  -13.92   -8.07
**SO YBADJ     COOL3_18   -1.96    4.20   10.24   15.96   21.20   25.80
**SO YBADJ     COOL3_18   29.61   32.52   34.44   35.32   35.12   33.86
**SO YBADJ     COOL3_18   31.57   28.32   24.21   19.36   13.92    8.07
**
**
**SO BUILDHGT COOL3_19   14.94   14.94   31.39   31.39   31.39   31.39
**SO BUILDHGT COOL3_19   14.94   14.94   14.94   14.94   31.39   31.39
**SO BUILDHGT COOL3_19   31.39   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_19   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_19   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_19   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDWID COOL3_19   62.37   97.33   41.93   39.26   35.39   30.44
**SO BUILDWID COOL3_19  210.24  215.62  214.45  215.91   23.30   29.34
**SO BUILDWID COOL3_19   34.48  162.46  135.28  104.00   69.55   32.99
**SO BUILDWID COOL3_19   62.37   97.33  129.33  157.40  180.68  198.48
**SO BUILDWID COOL3_19  210.24  215.62  214.45  215.91  211.84  201.33
**SO BUILDWID COOL3_19  184.70  162.46  135.28  104.00   69.55   32.99
**SO BUILDLEN COOL3_19  215.91  211.84   29.34   34.48   38.57   41.50
**SO BUILDLEN COOL3_19  104.00   69.55   32.99   62.37   43.33   41.93
**SO BUILDLEN COOL3_19   39.26  180.68  198.48  210.24  215.62  214.45
**SO BUILDLEN COOL3_19  215.91  211.84  201.33  184.70  162.46  135.28
**SO BUILDLEN COOL3_19  104.00   69.55   32.99   62.37   97.33  129.33
**SO BUILDLEN COOL3_19  157.40  180.68  198.48  210.24  215.62  214.45
**SO XBADJ     COOL3_19 -126.18 -124.60 -149.72 -119.22 -124.86 -126.70
**SO XBADJ     COOL3_19  -64.75  -44.95  -23.79  -35.38 -115.16 -113.52
**SO XBADJ     COOL3_19 -108.43  -81.84  -87.97  -91.43  -92.12  -90.00
**SO XBADJ     COOL3_19  -89.73  -87.24  -82.10  -74.47  -64.57  -52.71
**SO XBADJ     COOL3_19  -39.25  -24.60   -9.20  -26.99  -47.70  -66.96
**SO XBADJ     COOL3_19  -84.18  -98.84 -110.51 -118.81 -123.51 -124.45
**SO YBADJ     COOL3_19    4.19    0.97   24.91   29.60   11.44   -7.07
**SO YBADJ     COOL3_19  -13.69  -15.69  -17.22  -18.23    2.78  -13.50
**SO YBADJ     COOL3_19  -29.37  -16.66  -14.93  -12.75  -10.18   -7.30
**SO YBADJ     COOL3_19   -4.19   -0.97    2.29    5.48    8.50   11.27
**SO YBADJ     COOL3_19   13.69   15.69   17.22   18.23   18.68   18.56
**SO YBADJ     COOL3_19   17.88   16.66   14.93   12.75   10.18    7.30
**
**
**SO BUILDHGT COOL3_20   14.94   14.94   31.39   31.39   31.39   31.39
**SO BUILDHGT COOL3_20   31.39   14.94   14.94   14.94   31.39   31.39
**SO BUILDHGT COOL3_20   31.39   31.39   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_20   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_20   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_20   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDWID COOL3_20   62.37   97.33   41.93   39.26   35.39   30.44
**SO BUILDWID COOL3_20   24.57  215.62  214.45  215.91   23.30   29.34
**SO BUILDWID COOL3_20   34.48   38.57  135.28  104.00   69.55   32.99
**SO BUILDWID COOL3_20   62.37   97.33  129.33  157.40  180.68  198.48
**SO BUILDWID COOL3_20  210.24  215.62  214.45  215.91  211.84  201.33
**SO BUILDWID COOL3_20  184.70  162.46  135.28  104.00   69.55   32.99
```

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**SO BUILDLEN COOL3_20  215.91  211.84   29.34   34.48   38.57   41.50
**SO BUILDLEN COOL3_20   43.16   69.55   32.99   62.37   43.33   41.93
**SO BUILDLEN COOL3_20   39.26   35.39  198.48  210.24  215.62  214.45
**SO BUILDLEN COOL3_20  215.91  211.84  201.33  184.70  162.46  135.28
**SO BUILDLEN COOL3_20  104.00   69.55   32.99   62.37   97.33  129.33
**SO BUILDLEN COOL3_20  157.40  180.68  198.48  210.24  215.62  214.45
**SO XBADJ    COOL3_20 -110.33 -109.51 -135.85 -142.34 -114.65 -118.82
**SO XBADJ    COOL3_20 -119.38  -42.37  -24.01  -38.40 -120.89 -121.78
**SO XBADJ    COOL3_20 -118.98 -112.56 -102.06 -106.68 -108.05 -106.14
**SO XBADJ    COOL3_20 -105.58 -102.33  -95.97  -86.69  -74.78  -60.59
**SO XBADJ    COOL3_20  -44.57  -27.18   -8.98  -23.97  -41.97  -58.70
**SO XBADJ    COOL3_20  -73.64  -86.34  -96.42 -103.57 -107.57 -108.31
**SO YBADJ    COOL3_20    7.21    6.69   33.17   11.62   23.94    7.02
**SO YBADJ    COOL3_20  -10.12    0.24   -1.08   -2.37   17.87    0.37
**SO YBADJ    COOL3_20  -17.15  -34.14   -7.05   -7.43   -7.59   -7.52
**SO YBADJ    COOL3_20   -7.21   -6.69   -5.97   -5.06   -4.00   -2.82
**SO YBADJ    COOL3_20   -1.55   -0.24    1.08    2.37    3.59    4.70
**SO YBADJ    COOL3_20    5.66    6.45    7.05    7.43    7.59    7.52
**
**
**SO BUILDHGT COOL3_21   14.94   14.94   14.94   31.39   31.39   31.39
**SO BUILDHGT COOL3_21   31.39   31.39   14.94   14.94   14.94   31.39
**SO BUILDHGT COOL3_21   31.39   31.39   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_21   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_21   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_21   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDWID COOL3_21   62.37   97.33  129.33   39.26   35.39   30.44
**SO BUILDWID COOL3_21   24.57   17.96  214.45  215.91  211.84   29.34
**SO BUILDWID COOL3_21   34.48   38.57  135.28  104.00   69.55   32.99
**SO BUILDWID COOL3_21   62.37   97.33  129.33  157.40  180.68  198.48
**SO BUILDWID COOL3_21  210.24  215.62  214.45  215.91  211.84  201.33
**SO BUILDWID COOL3_21  184.70  162.46  135.28  104.00   69.55   32.99
**SO BUILDLEN COOL3_21  215.91  211.84  201.33   34.48   38.57   41.50
**SO BUILDLEN COOL3_21   43.16   43.51   32.99   62.37   97.33   41.93
**SO BUILDLEN COOL3_21   39.26   35.39  198.48  210.24  215.62  214.45
**SO BUILDLEN COOL3_21  215.91  211.84  201.33  184.70  162.46  135.28
**SO BUILDLEN COOL3_21  104.00   69.55   32.99   62.37   97.33  129.33
**SO BUILDLEN COOL3_21  157.40  180.68  198.48  210.24  215.62  214.45
**SO XBADJ    COOL3_21  -94.56  -94.41  -91.40 -129.94 -134.04 -134.06
**SO XBADJ    COOL3_21 -113.66 -113.27  -23.73  -40.90  -60.55 -129.52
**SO XBADJ    COOL3_21 -129.02 -124.60 -115.74 -121.58 -123.72 -122.10
**SO XBADJ    COOL3_21 -121.35 -117.42 -109.93  -99.09  -85.25  -68.81
**SO XBADJ    COOL3_21  -50.29  -30.23   -9.26  -21.48  -36.78  -50.96
**SO XBADJ    COOL3_21  -63.59  -74.29  -82.74  -88.67  -91.90  -92.35
**SO YBADJ    COOL3_21    9.71   11.89   13.71   21.67    1.77  -18.18
**SO YBADJ    COOL3_21    4.78  -11.28   14.88   13.39   11.50   14.33
**SO YBADJ    COOL3_21   -4.74  -23.66    1.17   -1.71   -4.54   -7.24
**SO YBADJ    COOL3_21   -9.71  -11.89  -13.71  -15.11  -16.05  -16.50
**SO YBADJ    COOL3_21  -16.45  -15.91  -14.88  -13.39  -11.50   -9.27
**SO YBADJ    COOL3_21   -6.74   -4.02   -1.17    1.71    4.54    7.24
**
**
**SO BUILDHGT COOL3_22   14.94   14.94   14.94   31.39   31.39   31.39
**SO BUILDHGT COOL3_22   31.39   31.39   14.94   14.94   14.94   31.39
**SO BUILDHGT COOL3_22   31.39   31.39   31.39   14.94   14.94   14.94
**SO BUILDHGT COOL3_22   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_22   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_22   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDWID COOL3_22   62.37   97.33  129.33   39.26   35.39   30.44
**SO BUILDWID COOL3_22   24.57   17.96  214.45  215.91  211.84   29.34
**SO BUILDWID COOL3_22   34.48   38.57   41.50  104.00   69.55   32.99
**SO BUILDWID COOL3_22   62.37   97.33  129.33  157.40  180.68  198.48
**SO BUILDWID COOL3_22  210.24  215.62  214.45  215.91  211.84  201.33
**SO BUILDWID COOL3_22  184.70  162.46  135.28  104.00   69.55   32.99
**SO BUILDLEN COOL3_22  215.91  211.84  201.33   34.48   38.57   41.50
**SO BUILDLEN COOL3_22   43.16   43.51   32.99   62.37   97.33   41.93
**SO BUILDLEN COOL3_22   39.26   35.39   30.44  210.24  215.62  214.45
**SO BUILDLEN COOL3_22  215.91  211.84  201.33  184.70  162.46  135.28
**SO BUILDLEN COOL3_22  104.00   69.55   32.99   62.37   97.33  129.33
**SO BUILDLEN COOL3_22  157.40  180.68  198.48  210.24  215.62  214.45
**SO XBADJ    COOL3_22  -78.80  -79.32  -77.44 -117.53 -123.56 -125.84
**SO XBADJ    COOL3_22 -124.29 -110.22  -23.45  -43.39  -65.75 -137.26
**SO XBADJ    COOL3_22 -139.07 -136.65 -130.08 -136.48 -139.39 -138.06
**SO XBADJ    COOL3_22 -137.12 -132.52 -123.89 -111.50  -95.72  -77.04
**SO XBADJ    COOL3_22  -56.01  -33.28   -9.54  -18.98  -31.58  -43.22
**SO XBADJ    COOL3_22  -53.55  -62.25  -69.06  -73.77  -76.23  -76.39
**SO YBADJ    COOL3_22   12.21   17.08   21.44   31.71   13.82   -4.50
**SO YBADJ    COOL3_22  -22.68    4.39   30.84   29.16   26.60   28.29
**SO YBADJ    COOL3_22    7.67  -13.19  -33.65    4.01   -1.50   -6.96
**SO YBADJ    COOL3_22  -12.21  -17.08  -21.44  -25.15  -28.09  -30.18
**SO YBADJ    COOL3_22  -31.36  -31.58  -30.84  -29.16  -26.60  -23.23
**SO YBADJ    COOL3_22  -19.15  -14.49   -9.39   -4.01    1.50    6.96
**
**SO BUILDHGT COOL3_23   14.94   14.94   14.94   14.94   31.39   31.39
**SO BUILDHGT COOL3_23   31.39   14.94   31.39   31.39   14.94   14.94
**SO BUILDHGT COOL3_23   31.39   31.39   31.39   14.94   14.94   14.94
**SO BUILDHGT COOL3_23   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_23   14.94   14.94   14.94   14.94   14.94   14.94
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**SO BUILDHGT COOL3_23    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDWID COOL3_23    62.37    97.33   129.33   157.40    35.39    30.44
**SO BUILDWID COOL3_23    24.57   215.62    10.80    16.56   211.84   201.33
**SO BUILDWID COOL3_23    34.48    38.57    41.50   104.00    69.55    32.99
**SO BUILDWID COOL3_23    62.37    97.33   129.33   157.40   180.68   198.48
**SO BUILDWID COOL3_23   210.24   215.62   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_23   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDLEN COOL3_23   215.91   211.84   201.33   184.70    38.57    41.50
**SO BUILDLEN COOL3_23    43.16    69.55    42.54    43.42    97.33   129.33
**SO BUILDLEN COOL3_23    39.26    35.39    30.44   210.24   215.62   214.45
**SO BUILDLEN COOL3_23   215.91   211.84   201.33   184.70   162.46   135.28
**SO BUILDLEN COOL3_23   104.00    69.55    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_23   157.40   180.68   198.48   210.24   215.62   214.45
**SO XBADJ    COOL3_23   -61.10   -62.26   -61.54   -58.94  -111.38  -116.10
**SO XBADJ    COOL3_23  -117.29   -32.23  -108.18  -108.48   -70.92   -94.17
**SO XBADJ    COOL3_23  -149.76  -149.66  -145.01  -152.87  -156.75  -155.86
**SO XBADJ    COOL3_23  -154.81  -149.58  -139.79  -125.76  -107.91   -86.78
**SO XBADJ    COOL3_23   -63.01   -37.33   -10.51   -16.85   -26.40   -35.16
**SO XBADJ    COOL3_23   -42.85   -49.24   -54.13   -57.37   -58.87   -58.59
**SO YBADJ    COOL3_23    14.34    22.26    29.50    35.85    26.83    10.43
**SO YBADJ    COOL3_23    -6.29    48.94     6.76    -8.43    43.66    39.13
**SO YBADJ    COOL3_23    21.92    -1.01   -23.91    11.01     2.55    -5.99
**SO YBADJ    COOL3_23   -14.34   -22.26   -29.50   -35.85   -41.11   -45.11
**SO YBADJ    COOL3_23   -47.75   -48.94   -48.64   -46.86   -43.66   -39.13
**SO YBADJ    COOL3_23   -33.41   -26.68   -19.13   -11.01    -2.55     5.99
**
**
**SO BUILDHGT COOL3_24    14.94    14.94    14.94    14.94    14.94    31.39
**SO BUILDHGT COOL3_24    31.39    31.39    14.94    31.39    31.39    31.39
**SO BUILDHGT COOL3_24    31.39    31.39    31.39    14.94    14.94    14.94
**SO BUILDHGT COOL3_24    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_24    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_24    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDWID COOL3_24    62.37    97.33   129.33   157.40   180.68    30.44
**SO BUILDWID COOL3_24    24.57    17.96   214.45    16.56    23.30    29.34
**SO BUILDWID COOL3_24    34.48    38.57    41.50   104.00    69.55    32.99
**SO BUILDWID COOL3_24    62.37    97.33   129.33   157.40   180.68   198.48
**SO BUILDWID COOL3_24   210.24   215.62   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_24   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDLEN COOL3_24   215.91   211.84   201.33   184.70   162.46    41.50
**SO BUILDLEN COOL3_24    43.16    43.51    32.99    43.42    43.33    41.93
**SO BUILDLEN COOL3_24    39.26    35.39    30.44   210.24   215.62   214.45
**SO BUILDLEN COOL3_24   215.91   211.84   201.33   184.70   162.46   135.28
**SO BUILDLEN COOL3_24   104.00    69.55    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_24   157.40   180.68   198.48   210.24   215.62   214.45
**SO XBADJ    COOL3_24   -46.92   -48.90   -49.40   -48.40   -45.93  -109.65
**SO XBADJ    COOL3_24  -113.22  -113.35   -23.45  -111.96  -111.55  -107.74
**SO XBADJ    COOL3_24  -159.87  -161.44  -158.11  -166.90  -171.27  -170.43
**SO XBADJ    COOL3_24  -168.99  -162.94  -151.92  -136.30  -116.53   -93.22
**SO XBADJ    COOL3_24   -67.08   -38.90    -9.54   -13.36   -20.51   -27.04
**SO XBADJ    COOL3_24   -32.74   -37.45   -41.02   -43.35   -44.36   -44.02
**SO YBADJ    COOL3_24    17.83    28.16    37.63    45.96    52.89    23.53
**SO YBADJ    COOL3_24     7.74    -8.30    63.21     5.75   -10.01   -25.47
**SO YBADJ    COOL3_24    32.46     7.62   -17.46    15.08     4.12    -6.96
**SO YBADJ    COOL3_24   -17.83   -28.16   -37.63   -45.96   -52.89   -58.22
**SO YBADJ    COOL3_24   -61.77   -63.45   -63.21   -61.04   -57.02   -51.26
**SO YBADJ    COOL3_24   -43.95   -35.30   -25.58   -15.08    -4.12     6.96
**
**
**SO BUILDHGT COOL3_25    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_25    31.39    31.39    31.39    14.94    31.39    31.39
**SO BUILDHGT COOL3_25    31.39    31.39    31.39    31.39    14.94    14.94
**SO BUILDHGT COOL3_25    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_25    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDHGT COOL3_25    14.94    14.94    14.94    14.94    14.94    14.94
**SO BUILDWID COOL3_25    62.37    97.33   129.33   157.40   180.68   198.48
**SO BUILDWID COOL3_25    24.57    17.96    10.80   215.91    23.30    29.34
**SO BUILDWID COOL3_25    34.48    38.57    41.50    43.16    69.55    32.99
**SO BUILDWID COOL3_25    62.37    97.33   129.33   157.40   180.68   198.48
**SO BUILDWID COOL3_25   210.24   215.62   214.45   215.91   211.84   201.33
**SO BUILDWID COOL3_25   184.70   162.46   135.28   104.00    69.55    32.99
**SO BUILDLEN COOL3_25   215.91   211.84   201.33   184.70   162.46   135.28
**SO BUILDLEN COOL3_25    43.16    43.51    42.54    62.37    43.33    41.93
**SO BUILDLEN COOL3_25    39.26    35.39    30.44    24.57   215.62   214.45
**SO BUILDLEN COOL3_25   215.91   211.84   201.33   184.70   162.46   135.28
**SO BUILDLEN COOL3_25   104.00    69.55    32.99    62.37    97.33   129.33
**SO BUILDLEN COOL3_25   157.40   180.68   198.48   210.24   215.62   214.45
**SO XBADJ    COOL3_25   -30.59   -33.24   -34.88   -35.46   -34.96   -33.40
**SO XBADJ    COOL3_25  -107.13  -110.01  -109.55   -51.40  -116.73  -115.57
**SO XBADJ    COOL3_25  -110.89  -173.77  -172.15  -165.31  -187.42  -186.92
**SO XBADJ    COOL3_25  -185.32  -178.59  -166.45  -149.24  -127.50  -101.88
**SO XBADJ    COOL3_25   -73.17   -42.24   -10.02   -10.97   -15.32   -19.21
**SO XBADJ    COOL3_25   -22.51   -25.13   -26.98   -28.02   -28.20   -27.53
**SO YBADJ    COOL3_25    20.22    33.34    45.46    56.19    65.21    72.26
**SO YBADJ    COOL3_25    23.07     7.86    -7.58    77.36     5.65   -10.95
**SO YBADJ    COOL3_25   -27.21    18.58    -8.80   -35.92     7.46    -6.48
**SO YBADJ    COOL3_25   -20.22   -33.34   -45.46   -56.19   -65.21   -72.26
**SO YBADJ    COOL3_25   -77.11   -79.61   -79.70   -77.36   -72.68   -65.78
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**SO YBADJ    COOL3_25  -56.89  -46.27  -34.24  -21.17   -7.46    6.48
**
**
**SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_26   14.94   14.94   31.39   31.39   31.39   31.39
**SO BUILDHGT COOL3_26   31.39   31.39   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDHGT COOL3_26   14.94   14.94   14.94   14.94   14.94   14.94
**SO BUILDWID COOL3_26   62.37   97.33  129.33  157.40  180.68  198.48
**SO BUILDWID COOL3_26  210.24  215.62   10.80   16.56   23.30   29.34
**SO BUILDWID COOL3_26   34.48   38.57  135.28  104.00   69.55   32.99
**SO BUILDWID COOL3_26   62.37   97.33  129.33  157.40  180.68  198.48
**SO BUILDWID COOL3_26  210.24  215.62  214.45  215.91  211.84  201.33
**SO BUILDWID COOL3_26  184.70  162.46  135.28  104.00   69.55   32.99
**SO BUILDLEN COOL3_26  215.91  211.84  201.33  184.70  162.46  135.28
**SO BUILDLEN COOL3_26  104.00   69.55   42.54   43.42   43.33   41.93
**SO BUILDLEN COOL3_26   39.26   35.39  198.48  210.24  215.62  214.45
**SO BUILDLEN COOL3_26  215.91  211.84  201.33  184.70  162.46  135.28
**SO BUILDLEN COOL3_26  104.00   69.55   32.99   62.37   97.33  129.33
**SO BUILDLEN COOL3_26  157.40  180.68  198.48  210.24  215.62  214.45
**SO XBADJ    COOL3_26  -12.64  -15.86  -18.59  -20.76  -22.29  -23.15
**SO XBADJ    COOL3_26  -23.31  -22.76 -108.09 -109.02 -121.51 -123.29
**SO XBADJ    COOL3_26 -121.33 -115.68 -186.33 -198.61 -204.87 -204.89
**SO XBADJ    COOL3_26 -203.27 -195.98 -182.74 -163.94 -140.17 -112.13
**SO XBADJ    COOL3_26  -80.69  -46.79  -11.48   -9.29  -10.55  -11.49
**SO XBADJ    COOL3_26  -12.08  -12.30  -12.15  -11.63  -10.76   -9.56
**SO YBADJ    COOL3_26   21.90   38.12   53.18   66.62   78.04   87.09
**SO YBADJ    COOL3_26   93.49   97.05   10.39   -4.85   23.03    5.35
**SO YBADJ    COOL3_26  -12.50  -29.97   44.49   28.69   12.02   -5.02
**SO YBADJ    COOL3_26  -21.90  -38.12  -53.18  -66.62  -78.04  -87.09
**SO YBADJ    COOL3_26  -93.49  -97.05  -97.67  -95.31  -90.06  -82.07
**SO YBADJ    COOL3_26  -71.59  -58.94  -44.49  -28.69  -12.02    5.02

   SRCGROUP ALL

SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED WC3.ROU
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE C:\amodmet\PBIMIA01.SFC
   PROFFILE C:\amodmet\PBIMIA01.PFL
   SURFDATA 12844 2001 WEST_PALM_BEACH/INT'L_ARPT
   UAIRDATA 92803 2001 MIAMI/FIU
   PROFBASE 19 FEET
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST  WC3CTW2401.PLT
   PLOTFILE PERIOD ALL  WC3CTWAN01.PLT
OU FINISHED
```

CALPUFF

CALPUFF INPUT FILE
CALPOST CONCENTRATION FILE
CONCENTRATION SUMMARIES

```
FPL WCEC 3 1250MW 'G' CLASS NATURAL GAS WITH DB, CALPUFF V 5.8       11/19/07
1 3-ON-1 CC UNIT WITH DB
4-km FLORIDA DOMAIN, 2001,  IMPACTS AT ENP
--------------- Run title (3 lines) ------------------------------------------

                    CALPUFF MODEL CONTROL FILE
                    --------------------------

-------------------------------------------------------------------------------

INPUT GROUP: 0 -- Input and Output File Names

--------------
Default Name  Type          File Name
------------  ----          ---------
CALMET.DAT    input    * METDAT =             *
    or
ISCMET.DAT    input    * ISCDAT =             *
    or
PLMMET.DAT    input    * PLMDAT =             *
    or
PROFILE.DAT   input    * PRFDAT =             *
SURFACE.DAT   input    * SFCDAT =             *
RESTARTB.DAT  input    * RSTARTB=             *
--------------------------------------------------------------------------------
CALPUFF.LST   output   ! PUFLST = PUFFGAS.LST !
CONC.DAT      output   ! CONDAT = PUFFGAS.CON !
DFLX.DAT      output   ! DFDAT  = PUFFGAS.DRY !
WFLX.DAT      output   ! WFDAT  = PUFFGAS.WET !

VISB.DAT      output   ! VISDAT =VISB.DAT     !
RESTARTE.DAT  output   * RSTARTE=             *
--------------------------------------------------------------------------------
Emission Files
--------------
PTEMARB.DAT   input    * PTDAT  =             *
VOLEMARB.DAT  input    * VOLDAT =             *
BAEMARB.DAT   input    * ARDAT  =             *
LNEMARB.DAT   input    * LNDAT  =             *
--------------------------------------------------------------------------------
Other Files
-----------
OZONE.DAT     input    ! OZDAT  =C:\BARTHRO3\2001FLoz.DAT !
VD.DAT        input    * VDDAT  =             *
CHEM.DAT      input    * CHEMDAT=             *
H2O2.DAT      input    * H2O2DAT=             *
HILL.DAT      input    * HILDAT=            *
HILLRCT.DAT   input    * RCTDAT=            *
COASTLN.DAT   input    * CSTDAT=            *
FLUXBDY.DAT   input    * BDYDAT=            *
BCON.DAT      input    * BCNDAT=            *
DEBUG.DAT     output   * DEBUG =            *
MASSFLX.DAT   output   * FLXDAT=            *
MASSBAL.DAT   output   * BALDAT=            *
FOG.DAT       output   * FOGDAT=            *
--------------------------------------------------------------------------------
All file names will be converted to lower case if LCFILES = T
Otherwise, if LCFILES = F, file names will be converted to UPPER CASE
         T = lower case      ! LCFILES = T !
         F = UPPER CASE
NOTE: (1) file/path names can be up to 70 characters in length


Provision for multiple input files
----------------------------------

     Number of CALMET.DAT files for run (NMETDAT)
                                    Default: 1       ! NMETDAT =   12  !

     Number of PTEMARB.DAT files for run (NPTDAT)
                                    Default: 0       ! NPTDAT =  0  !

     Number of BAEMARB.DAT files for run (NARDAT)
                                    Default: 0       ! NARDAT =  0  !

     Number of VOLEMARB.DAT files for run (NVOLDAT)
                                    Default: 0       ! NVOLDAT =  0  !

!END!

-------------
Subgroup (0a)
-------------

  The following CALMET.DAT filenames are processed in sequence if NMETDAT>1

Default Name  Type          File Name
------------  ----          ---------
```

```
CALMET.DAT     input     ! METDAT =d:\2001-DOM2EPA\met2001-dom2-JAN.dat ! !END!
CALMET.DAT     input     ! METDAT =d:\2001-DOM2EPA\met2001-dom2-feb.dat ! !END!
CALMET.DAT     input     ! METDAT =d:\2001-DOM2EPA\met2001-dom2-mar.dat ! !END!
CALMET.DAT     input     ! METDAT =d:\2001-DOM2EPA\met2001-dom2-apr.dat ! !END!
CALMET.DAT     input     ! METDAT =d:\2001-DOM2EPA\met2001-dom2-may.dat ! !END!
CALMET.DAT     input     ! METDAT =d:\2001-DOM2EPA\met2001-dom2-jun.dat ! !END!
CALMET.DAT     input     ! METDAT =d:\2001-DOM2EPA\met2001-dom2-jul.dat ! !END!
CALMET.DAT     input     ! METDAT =d:\2001-DOM2EPA\met2001-dom2-aug.dat ! !END!
CALMET.DAT     input     ! METDAT =d:\2001-DOM2EPA\met2001-dom2-sep.dat ! !END!
CALMET.DAT     input     ! METDAT =d:\2001-DOM2EPA\met2001-dom2-oct.dat ! !END!
CALMET.DAT     input     ! METDAT =d:\2001-DOM2EPA\met2001-dom2-nov.dat ! !END!
CALMET.DAT     input     ! METDAT =d:\2001-DOM2EPA\met2001-dom2-dec.dat ! !END!
--------------------------------------------------------------------------------

INPUT GROUP: 1 -- General run control parameters
--------------

    Option to run all periods found
    in the met. file     (METRUN)   Default: 0        ! METRUN =   0  !

         METRUN = 0 - Run period explicitly defined below
         METRUN = 1 - Run all periods in met. file

     Starting date:   Year (IBYR) -- No default       ! IBYR =  2001 !
     (used only if   Month (IBMO) -- No default       ! IBMO =  1   !
      METRUN = 0)      Day (IBDY) -- No default       ! IBDY =  1   !
                      Hour (IBHR) -- No default       ! IBHR =  1   !

     Note: IBHR is the time at the END of the first hour of the simulation
           (IBHR=1, the first hour of a day, runs from 00:00 to 01:00)

     Base time zone        (XBTZ) -- No default       ! XBTZ = 5.0  !
     The zone is the number of hours that must be
     ADDED to the time to obtain UTC (or GMT)
     Examples: PST = 8., MST = 7.
               CST = 6., EST = 5.

     Length of run (hours) (IRLG) -- No default       ! IRLG = 8760 !

     Number of chemical species (NSPEC)
                                  Default: 5          ! NSPEC = 12  !

     Number of chemical species
     to be emitted  (NSE)         Default: 3          ! NSE = 10  !

     Flag to stop run after
     SETUP phase (ITEST)          Default: 2          ! ITEST =  2   !
     (Used to allow checking
     of the model inputs, files, etc.)
           ITEST = 1 - STOPS program after SETUP phase
           ITEST = 2 - Continues with execution of program
                       after SETUP

     Restart Configuration:

        Control flag (MRESTART)      Default: 0       ! MRESTART =  0   !

           0 = Do not read or write a restart file
           1 = Read a restart file at the beginning of
               the run
           2 = Write a restart file during run
           3 = Read a restart file at beginning of run
               and write a restart file during run

        Number of periods in Restart
        output cycle (NRESPD)        Default: 0       ! NRESPD =  0   !

           0 = File written only at last period
          >0 = File updated every NRESPD periods

      Meteorological Data Format (METFM)
                                     Default: 1       ! METFM =  1   !

           METFM = 1 - CALMET binary file (CALMET.MET)
           METFM = 2 - ISC ASCII file (ISCMET.MET)
           METFM = 3 - AUSPLUME ASCII file (PLMMET.MET)
           METFM = 4 - CTDM plus tower file (PROFILE.DAT) and
                       surface parameters file (SURFACE.DAT)
           METFM = 5 - AERMET tower file (PROFILE.DAT) and
                       surface parameters file (SURFACE.DAT)

      Meteorological Profile Data Format (MPRFFM)
             (used only for METFM = 1, 2, 3)
                                     Default: 1       ! MPRFFM =  1   !

           MPRFFM = 1 - CTDM plus tower file (PROFILE.DAT)
           MPRFFM = 2 - AERMET tower file (PROFILE.DAT)
```

```
     PG sigma-y is adjusted by the factor (AVET/PGTIME)**0.2
     Averaging Time (minutes) (AVET)
                                      Default: 60.0    ! AVET = 60. !
     PG Averaging Time (minutes) (PGTIME)
                                      Default: 60.0    ! PGTIME = 60. !


!END!

-------------------------------------------------------------------------------

INPUT GROUP: 2 -- Technical options
--------------

     Vertical distribution used in the
     near field (MGAUSS)                   Default: 1     ! MGAUSS =  1    !
        0 = uniform
        1 = Gaussian

     Terrain adjustment method
     (MCTADJ)                              Default: 3     ! MCTADJ =  3    !
        0 = no adjustment
        1 = ISC-type of terrain adjustment
        2 = simple, CALPUFF-type of terrain
            adjustment
        3 = partial plume path adjustment

     Subgrid-scale complex terrain
     flag (MCTSG)                          Default: 0     ! MCTSG =  0   !
        0 = not modeled
        1 = modeled

     Near-field puffs modeled as
     elongated slugs? (MSLUG)              Default: 0     ! MSLUG =  0   !
        0 = no
        1 = yes (slug model used)

     Transitional plume rise modeled ?
     (MTRANS)                              Default: 1     ! MTRANS =  1    !
        0 = no  (i.e., final rise only)
        1 = yes (i.e., transitional rise computed)

     Stack tip downwash? (MTIP)            Default: 1     ! MTIP =  1  !
        0 = no  (i.e., no stack tip downwash)
        1 = yes (i.e., use stack tip downwash)

     Method used to simulate building
     downwash? (MBDW)                      Default: 1     ! MBDW =   1  !
        1 = ISC method
        2 = PRIME method

     Vertical wind shear modeled above
     stack top? (MSHEAR)                   Default: 0     ! MSHEAR =  0  !
        0 = no  (i.e., vertical wind shear not modeled)
        1 = yes (i.e., vertical wind shear modeled)

     Puff splitting allowed? (MSPLIT)      Default: 0     ! MSPLIT =  0  !
        0 = no (i.e., puffs not split)
        1 = yes (i.e., puffs are split)

     Chemical mechanism flag (MCHEM)       Default: 1     ! MCHEM =  1   !
        0 = chemical transformation not
            modeled
        1 = transformation rates computed
            internally (MESOPUFF II scheme)
        2 = user-specified transformation
            rates used
        3 = transformation rates computed
            internally (RIVAD/ARM3 scheme)
        4 = secondary organic aerosol formation
            computed (MESOPUFF II scheme for OH)

     Aqueous phase transformation flag (MAQCHEM)
     (Used only if MCHEM = 1, or 3)        Default: 0     ! MAQCHEM =  0   !
        0 = aqueous phase transformation
            not modeled
        1 = transformation rates adjusted
            for aqueous phase reactions

     Wet removal modeled ? (MWET)          Default: 1     ! MWET =  1   !
        0 = no
        1 = yes

     Dry deposition modeled ? (MDRY)       Default: 1     ! MDRY =  1   !
        0 = no
        1 = yes
```

```
       (dry deposition method specified
        for each species in Input Group 3)


     Gravitational settling (plume tilt)
     modeled ? (MTILT)                    Default: 0     ! MTILT =  0   !
        0 = no
        1 = yes
       (puff center falls at the gravitational
        settling velocity for 1 particle species)

     Restrictions:
          - MDRY  = 1
          - NSPEC = 1  (must be particle species as well)
          - sg    = 0  GEOMETRIC STANDARD DEVIATION in Group 8 is
                       set to zero for a single particle diameter

     Method used to compute dispersion
     coefficients (MDISP)                 Default: 3     ! MDISP =  3   !

       1 = dispersion coefficients computed from measured values
           of turbulence, sigma v, sigma w
       2 = dispersion coefficients from internally calculated
           sigma v, sigma w using micrometeorological variables
           (u*, w*, L, etc.)
       3 = PG dispersion coefficients for RURAL areas (computed using
           the ISCST multi-segment approximation) and MP coefficients in
           urban areas
       4 = same as 3 except PG coefficients computed using
           the MESOPUFF II eqns.
       5 = CTDM sigmas used for stable and neutral conditions.
           For unstable conditions, sigmas are computed as in
           MDISP = 3, described above.  MDISP = 5 assumes that
           measured values are read

     Sigma-v/sigma-theta, sigma-w measurements used? (MTURBVW)
     (Used only if MDISP = 1 or 5)        Default: 3     ! MTURBVW =  3  !
        1 = use sigma-v or sigma-theta measurements
            from PROFILE.DAT to compute sigma-y
            (valid for METFM = 1, 2, 3, 4, 5)
        2 = use sigma-w measurements
            from PROFILE.DAT to compute sigma-z
            (valid for METFM = 1, 2, 3, 4, 5)
        3 = use both sigma-(v/theta) and sigma-w
            from PROFILE.DAT to compute sigma-y and sigma-z
            (valid for METFM = 1, 2, 3, 4, 5)
        4 = use sigma-theta measurements
            from PLMMET.DAT to compute sigma-y
            (valid only if METFM = 3)

     Back-up method used to compute dispersion
     when measured turbulence data are
     missing (MDISP2)                     Default: 3     ! MDISP2 =  3  !
     (used only if MDISP = 1 or 5)
        2 = dispersion coefficients from internally calculated
            sigma v, sigma w using micrometeorological variables
            (u*, w*, L, etc.)
        3 = PG dispersion coefficients for RURAL areas (computed using
            the ISCST multi-segment approximation) and MP coefficients in
            urban areas
        4 = same as 3 except PG coefficients computed using
            the MESOPUFF II eqns.

     [DIAGNOSTIC FEATURE]
     Method used for Lagrangian timescale for Sigma-y
     (used only if MDISP=1,2 or MDISP2=1,2)
     (MTAULY)                             Default: 0     ! MTAULY =  0  !
        0 = Draxler default 617.284 (s)
        1 = Computed as Lag. Length / (.75 q) -- after SCIPUFF
       10 < Direct user input (s)             -- e.g., 306.9


     [DIAGNOSTIC FEATURE]
     Method used for Advective-Decay timescale for Turbulence
     (used only if MDISP=2 or MDISP2=2)
     (MTAUADV)                            Default: 0     ! MTAUADV =  0  !
        0 = No turbulence advection
        1 = Computed (OPTION NOT IMPLEMENTED)
       10 < Direct user input (s)   -- e.g., 300


     Method used to compute turbulence sigma-v &
     sigma-w using micrometeorological variables
     (Used only if MDISP = 2 or MDISP2 = 2)
     (MCTURB)                             Default: 1     ! MCTURB =  1  !
        1 = Standard CALPUFF subroutines
        2 = AERMOD subroutines
```

```
PG sigma-y,z adj. for roughness?      Default: 0     ! MROUGH =  0  !
(MROUGH)
   0 = no
   1 = yes

Partial plume penetration of          Default: 1     ! MPARTL =  1  !
elevated inversion?
(MPARTL)
   0 = no
   1 = yes

Strength of temperature inversion     Default: 0     ! MTINV =  0  !
provided in PROFILE.DAT extended records?
(MTINV)
   0 = no (computed from measured/default gradients)
   1 = yes

PDF used for dispersion under convective conditions?
                                      Default: 0     ! MPDF =  0  !
(MPDF)
   0 = no
   1 = yes

Sub-Grid TIBL module used for shore line?
                                      Default: 0     ! MSGTIBL = 0  !
(MSGTIBL)
   0 = no
   1 = yes

Boundary conditions (concentration) modeled?
                                      Default: 0     ! MBCON = 0  !
(MBCON)
   0 = no
   1 = yes, using formatted BCON.DAT file
   2 = yes, using unformatted CONC.DAT file

Note:  MBCON > 0 requires that the last species modeled
       be 'BCON'.  Mass is placed in species BCON when
       generating boundary condition puffs so that clean
       air entering the modeling domain can be simulated
       in the same way as polluted air.  Specify zero
       emission of species BCON for all regular sources.

Individual source contributions saved?
                                      Default: 0     ! MSOURCE = 0  !
(MSOURCE)
   0 = no
   1 = yes


Analyses of fogging and icing impacts due to emissions from
arrays of mechanically-forced cooling towers can be performed
using CALPUFF in conjunction with a cooling tower emissions
processor (CTEMISS) and its associated postprocessors.  Hourly
emissions of water vapor and temperature from each cooling tower
cell are computed for the current cell configuration and ambient
conditions by CTEMISS. CALPUFF models the dispersion of these
emissions and provides cloud information in a specialized format
for further analysis. Output to FOG.DAT is provided in either
'plume mode' or 'receptor mode' format.

Configure for FOG Model output?
                                      Default: 0     ! MFOG =  0    !
(MFOG)
   0 = no
   1 = yes  - report results in PLUME Mode format
   2 = yes  - report results in RECEPTOR Mode format


Test options specified to see if
they conform to regulatory
values? (MREG)                        Default: 1     ! MREG =  1    !

   0 = NO checks are made
   1 = Technical options must conform to USEPA
       Long Range Transport (LRT) guidance
                  METFM    1 or 2
                  AVET     60. (min)
                  PGTIME   60. (min)
                  MGAUSS   1
                  MCTADJ   3
                  MTRANS   1
                  MTIP     1
                  MCHEM    1 or 3 (if modeling SOx, NOx)
                  MWET     1
                  MDRY     1
                  MDISP    2 or 3
                  MPDF     0 if MDISP=3
```

```
                          1 if MDISP=2
                MROUGH    0
                MPARTL    1
                SYTDEP    550. (m)
                MHFTSZ    0
                SVMIN     0.5 (m/s)


!END!


-------------------------------------------------------------------------------

INPUT GROUP: 3a, 3b -- Species list
-------------------

------------
Subgroup (3a)
------------

  The following species are modeled:

! CSPEC =          SO2 !         !END!
! CSPEC =          SO4 !         !END!
! CSPEC =          NOX !         !END!
! CSPEC =         HNO3 !         !END!
! CSPEC =          NO3 !         !END!
! CSPEC =       PM0063 !         !END!
! CSPEC =       PM0100 !         !END!
! CSPEC =       PM0125 !         !END!
! CSPEC =       PM0250 !         !END!
! CSPEC =       PM0600 !         !END!
! CSPEC =       PM1000 !         !END!
! CSPEC =           CO !         !END!

                                                         Dry                 OUTPUT GROUP
    SPECIES          MODELED            EMITTED        DEPOSITED               NUMBER
     NAME          (0=NO, 1=YES)     (0=NO, 1=YES)    (0=NO,                 (0=NONE,
   (Limit: 12                                          1=COMPUTED-GAS        1=1st CGRUP,
    Characters                                         2=COMPUTED-PARTICLE   2=2nd CGRUP,
    in length)                                         3=USER-SPECIFIED)     3= etc.)

!          SO2  =          1,                1,            1,                 0    !
!          SO4  =          1,                1,            2,                 0    !
!          NOX  =          1,                1,            1,                 0    !
!         HNO3  =          1,                0,            1,                 0    !
!          NO3  =          1,                0,            2,                 0    !
!       PM0063  =          1,                1,            2,                 1    !
!       PM0100  =          1,                1,            2,                 1    !
!       PM0125  =          1,                1,            2,                 1    !
!       PM0250  =          1,                1,            2,                 1    !
!       PM0600  =          1,                1,            2,                 1    !
!       PM1000  =          1,                1,            2,                 1    !
!           CO  =          1,                1,            0,                 0    !

!END!

-------------
Subgroup (3b)
-------------
  The following names are used for Species-Groups in which results
  for certain species are combined (added) prior to output.  The
  CGRUP name will be used as the species name in output files.
  Use this feature to model specific particle-size distributions
  by treating each size-range as a separate species.
  Order must be consistent with 3(a) above.

! CGRUP =          PM10 !      !END!

INPUT GROUP: 4 -- Map Projection and Grid control parameters
--------------

     Projection for all (X,Y):
     -------------------------

     Map projection
     (PMAP)                     Default: UTM     ! PMAP = LCC   !

         UTM :  Universal Transverse Mercator
         TTM :  Tangential Transverse Mercator
         LCC :  Lambert Conformal Conic
          PS :  Polar Stereographic
          EM :  Equatorial Mercator
        LAZA :  Lambert Azimuthal Equal Area

     False Easting and Northing (km) at the projection origin
     (Used only if PMAP= TTM, LCC, or LAZA)
     (FEAST)                    Default=0.0      ! FEAST  = 0.000  !
```

```
     (FNORTH)                   Default=0.0      ! FNORTH = 0.000  !

     UTM zone (1 to 60)
     (Used only if PMAP=UTM)
     (IUTMZN)                   No Default       ! IUTMZN =  0 !

     Hemisphere for UTM projection?
     (Used only if PMAP=UTM)
     (UTMHEM)                   Default: N       ! UTMHEM = N  !
         N   :  Northern hemisphere projection
         S   :  Southern hemisphere projection

     Latitude and Longitude (decimal degrees) of projection origin
     (Used only if PMAP= TTM, LCC, PS, EM, or LAZA)
     (RLAT0)                    No Default       ! RLAT0 =  40N !
     (RLON0)                    No Default       ! RLON0 =  97W !

         TTM :  RLON0 identifies central (true N/S) meridian of projection
                RLAT0 selected for convenience
         LCC :  RLON0 identifies central (true N/S) meridian of projection
                RLAT0 selected for convenience
         PS  :  RLON0 identifies central (grid N/S) meridian of projection
                RLAT0 selected for convenience
         EM  :  RLON0 identifies central meridian of projection
                RLAT0 is REPLACED by 0.0N (Equator)
         LAZA:  RLON0 identifies longitude of tangent-point of mapping plane
                RLAT0 identifies latitude of tangent-point of mapping plane

     Matching parallel(s) of latitude (decimal degrees) for projection
     (Used only if PMAP= LCC or PS)
     (XLAT1)                    No Default       ! XLAT1 = 33N  !
     (XLAT2)                    No Default       ! XLAT2 = 45N  !

         LCC :  Projection cone slices through Earth's surface at XLAT1 and XLAT2
         PS  :  Projection plane slices through Earth at XLAT1
                (XLAT2 is not used)

     ----------
     Note:  Latitudes and longitudes should be positive, and include a
            letter N,S,E, or W indicating north or south latitude, and
            east or west longitude.  For example,
            35.9  N Latitude  =  35.9N
            118.7 E Longitude = 118.7E


     Datum-region
     ------------

     The Datum-Region for the coordinates is identified by a character
     string.  Many mapping products currently available use the model of the
     Earth known as the World Geodetic System 1984 (WGS-84).  Other local
     models may be in use, and their selection in CALMET will make its output
     consistent with local mapping products.  The list of Datum-Regions with
     official transformation parameters is provided by the National Imagery and
     Mapping Agency (NIMA).

     NIMA Datum - Regions(Examples)
     ------------------------------------------------------------------------------
     WGS-84    WGS-84 Reference Ellipsoid and Geoid, Global coverage (WGS84)
     NAS-C     NORTH AMERICAN 1927 Clarke 1866 Spheroid, MEAN FOR CONUS (NAD27)
     NAR-C     NORTH AMERICAN 1983 GRS 80 Spheroid, MEAN FOR CONUS (NAD83)
     NWS-84    NWS 6370KM Radius, Sphere
     ESR-S     ESRI REFERENCE 6371KM Radius, Sphere

     Datum-region for output coordinates
     (DATUM)                    Default: WGS-84    ! DATUM = NWS-84 !


METEOROLOGICAL Grid:

     Rectangular grid defined for projection PMAP,
     with X the Easting and Y the Northing coordinate

            No. X grid cells (NX)      No default     ! NX = 263    !
            No. Y grid cells (NY)      No default     ! NY = 206    !
        No. vertical layers (NZ)       No default     ! NZ =  10    !

           Grid spacing (DGRIDKM)      No default     ! DGRIDKM = 4. !
                                       Units: km

                Cell face heights
                    (ZFACE(nz+1))      No defaults
                                       Units: m
   * ZFACE = .0, 20.0, 40.0, 80.0, 160.0, 300.0, 600.0, 1000.0, 1500.0, 2200.0,
             3000.0 *
   ! ZFACE = 0.,20.,40.,80.,160.,320.,640.,1200.,2000.,3000.,4000. !

            Reference Coordinates
```

```
         of SOUTHWEST corner of
              grid cell(1, 1):

          X coordinate (XORIGKM)      No default      ! XORIGKM =  721.995 !
          Y coordinate (YORIGKM)      No default      ! YORIGKM = -1598.000 !
                                     Units: km


COMPUTATIONAL Grid:

     The computational grid is identical to or a subset of the MET. grid.
     The lower left (LL) corner of the computational grid is at grid point
     (IBCOMP, JBCOMP) of the MET. grid.  The upper right (UR) corner of the
     computational grid is at grid point (IECOMP, JECOMP) of the MET. grid.
     The grid spacing of the computational grid is the same as the MET. grid.

        X index of LL corner (IBCOMP)      No default      ! IBCOMP =  1  !
                  (1 <= IBCOMP <= NX)

        Y index of LL corner (JBCOMP)      No default      ! JBCOMP =  1  !
                  (1 <= JBCOMP <= NY)


        X index of UR corner (IECOMP)      No default      ! IECOMP = 263 !
                  (1 <= IECOMP <= NX)

        Y index of UR corner (JECOMP)      No default      ! JECOMP = 206 !
                  (1 <= JECOMP <= NY)


SAMPLING Grid (GRIDDED RECEPTORS):

     The lower left (LL) corner of the sampling grid is at grid point
     (IBSAMP, JBSAMP) of the MET. grid.  The upper right (UR) corner of the
     sampling grid is at grid point (IESAMP, JESAMP) of the MET. grid.
     The sampling grid must be identical to or a subset of the computational
     grid.  It may be a nested grid inside the computational grid.
     The grid spacing of the sampling grid is DGRIDKM/MESHDN.

        Logical flag indicating if gridded
        receptors are used (LSAMP)         Default: T      ! LSAMP = F !
        (T=yes, F=no)

        X index of LL corner (IBSAMP)      No default      ! IBSAMP =  1    !
         (IBCOMP <= IBSAMP <= IECOMP)

        Y index of LL corner (JBSAMP)      No default      ! JBSAMP =  1    !
         (JBCOMP <= JBSAMP <= JECOMP)


        X index of UR corner (IESAMP)      No default      ! IESAMP =  263 !
         (IBCOMP <= IESAMP <= IECOMP)

        Y index of UR corner (JESAMP)      No default      ! JESAMP =  206  !
         (JBCOMP <= JESAMP <= JECOMP)


       Nesting factor of the sampling
        grid (MESHDN)                      Default: 1      ! MESHDN =  1  !
        (MESHDN is an integer >= 1)

!END!


-------------------------------------------------------------------------------


INPUT GROUP: 5 -- Output Options
--------------
                                             *                           *
      FILE                       DEFAULT VALUE            VALUE THIS RUN
      ----                       -------------            --------------

    Concentrations (ICON)              1                  !  ICON =  1   !
    Dry Fluxes (IDRY)                  1                  !  IDRY =  1   !
    Wet Fluxes (IWET)                  1                  !  IWET =  1   !
    2D Temperature (IT2D)              0                  !  IT2D =  0   !
    2D Density (IRHO)                  0                  !  IRHO =  0   !
    Relative Humidity (IVIS)           1                  !  IVIS =  1   !
     (relative humidity file is
      required for visibility
      analysis)
    Use data compression option in output file?
    (LCOMPRS)                       Default: T            ! LCOMPRS = T !

    *
     0 = Do not create file, 1 = create file
```

```
QA PLOT FILE OUTPUT OPTION:

   Create a standard series of output files (e.g.
   locations of sources, receptors, grids ...)
   suitable for plotting?
   (IQAPLOT)                      Default: 1         !  IQAPLOT =  1   !
     0 = no
     1 = yes

DIAGNOSTIC MASS FLUX OUTPUT OPTIONS:

   Mass flux across specified boundaries
   for selected species reported?
   (IMFLX)                        Default: 0         ! IMFLX =  0  !
     0 = no
     1 = yes (FLUXBDY.DAT and MASSFLX.DAT filenames
             are specified in Input Group 0)

   Mass balance for each species
   reported?
   (IMBAL)                        Default: 0         ! IMBAL =  0  !
     0 = no
     1 = yes (MASSBAL.DAT filename is
         specified in Input Group 0)


LINE PRINTER OUTPUT OPTIONS:

   Print concentrations (ICPRT)   Default: 0         ! ICPRT =  0   !
   Print dry fluxes (IDPRT)       Default: 0         ! IDPRT =  0   !
   Print wet fluxes (IWPRT)       Default: 0         ! IWPRT =  0   !
   (0 = Do not print, 1 = Print)

   Concentration print interval
   (ICFRQ) in timesteps           Default: 1         ! ICFRQ =  24  !
   Dry flux print interval
   (IDFRQ) in timesteps           Default: 1         ! IDFRQ =  1   !
   Wet flux print interval
   (IWFRQ) in timesteps           Default: 1         ! IWFRQ =  1   !

   Units for Line Printer Output
   (IPRTU)                        Default: 1         ! IPRTU =  3   !
                   for              for
             Concentration     Deposition
       1 =       g/m**3          g/m**2/s
       2 =      mg/m**3         mg/m**2/s
       3 =      ug/m**3         ug/m**2/s
       4 =      ng/m**3         ng/m**2/s
       5 =     Odour Units

   Messages tracking progress of run
   written to the screen ?
   (IMESG)                        Default: 2         ! IMESG =  2   !
     0 = no
     1 = yes (advection step, puff ID)
     2 = yes (YYYYJJJHH, # old puffs, # emitted puffs)


 SPECIES (or GROUP for combined species) LIST FOR OUTPUT OPTIONS

              ---- CONCENTRATIONS ----   ------ DRY FLUXES ------   ------ WET FLUXES ------   -- MASS FLUX --
SPECIES
/GROUP        PRINTED?  SAVED ON DISK?   PRINTED?  SAVED ON DISK?   PRINTED?  SAVED ON DISK?   SAVED ON DISK?
-------       ------------------------   ------------------------   ------------------------   ---------------
!      SO2 =    0,           1,            0,          1,             0,          1,             0   !
!      SO4 =    0,           1,            0,          1,             0,          1,             0   !
!      NOX =    0,           1,            0,          1,             0,          1,             0   !
!     HNO3 =    0,           1,            0,          1,             0,          1,             0   !
!      NO3 =    0,           1,            0,          1,             0,          1,             0   !
!     PM10 =    0,           1,            0,          1,             0,          1,             0   !
!       CO =    0,           1,            0,          1,             0,          1,             0   !

 OPTIONS FOR PRINTING "DEBUG" QUANTITIES (much output)

   Logical for debug output
   (LDEBUG)                                 Default: F     ! LDEBUG = F !

   First puff to track
   (IPFDEB)                                 Default: 1     ! IPFDEB =  1  !

   Number of puffs to track
   (NPFDEB)                                 Default: 1     ! NPFDEB =  1  !

   Met. period to start output
   (NN1)                                    Default: 1     ! NN1 =  1    !
```

```
      Met. period to end output
      (NN2)                                 Default: 10     ! NN2 =  10  !

!END!

-------------------------------------------------------------------------------

INPUT GROUP: 6a, 6b, & 6c -- Subgrid scale complex terrain inputs
-------------------------

---------------
Subgroup (6a)
---------------
      Number of terrain features (NHILL)       Default: 0      ! NHILL =  0   !

      Number of special complex terrain
      receptors  (NCTREC)                      Default: 0      ! NCTREC =  0   !

      Terrain and CTSG Receptor data for
      CTSG hills input in CTDM format ?
      (MHILL)                                  No Default      ! MHILL =  2   !
      1 = Hill and Receptor data created
          by CTDM processors & read from
          HILL.DAT and HILLRCT.DAT files
      2 = Hill data created by OPTHILL &
          input below in Subgroup (6b);
          Receptor data in Subgroup (6c)

      Factor to convert horizontal dimensions  Default: 1.0    ! XHILL2M = 1. !
      to meters (MHILL=1)

      Factor to convert vertical dimensions    Default: 1.0    ! ZHILL2M = 1. !
      to meters (MHILL=1)

      X-origin of CTDM system relative to      No Default      ! XCTDMKM = 0.0E00 !
      CALPUFF coordinate system, in Kilometers (MHILL=1)

      Y-origin of CTDM system relative to      No Default      ! YCTDMKM = 0.0E00 !
      CALPUFF coordinate system, in Kilometers (MHILL=1)

! END !

---------------
Subgroup (6b)
---------------

                      1 **
     HILL information


HILL        XC       YC      THETAH  ZGRID  RELIEF   EXPO 1   EXPO 2   SCALE 1   SCALE 2   AMAX1   AMAX2
 NO.       (km)     (km)     (deg.)   (m)     (m)      (m)      (m)      (m)       (m)       (m)     (m)
----       ----     ----     ------  -----  ------   ------   ------   -------   -------   -----   -----

---------------
Subgroup (6c)
---------------

    COMPLEX TERRAIN RECEPTOR INFORMATION

                      XRCT        YRCT        ZRCT        XHH
                      (km)        (km)         (m)
                     ------      -----       ------      ----


-------------------
1
     Description of Complex Terrain Variables:
          XC, YC  = Coordinates of center of hill
          THETAH  = Orientation of major axis of hill (clockwise from
                    North)
          ZGRID   = Height of the  0  of the grid above mean sea
                    level
          RELIEF  = Height of the crest of the hill above the grid elevation
          EXPO 1  = Hill-shape exponent for the major axis
          EXPO 2  = Hill-shape exponent for the major axis
          SCALE 1 = Horizontal length scale along the major axis
          SCALE 2 = Horizontal length scale along the minor axis
          AMAX    = Maximum allowed axis length for the major axis
          BMAX    = Maximum allowed axis length for the major axis

          XRCT, YRCT = Coordinates of the complex terrain receptors
          ZRCT    = Height of the ground (MSL) at the complex terrain
                    Receptor
          XHH     = Hill number associated with each complex terrain receptor
                    (NOTE: MUST BE ENTERED AS A REAL NUMBER)
```

```
   **
    NOTE: DATA for each hill and CTSG receptor are treated as a separate
          input subgroup and therefore must end with an input group terminator.

-------------------------------------------------------------------------------

INPUT GROUP: 7 -- Chemical parameters for dry deposition of gases
--------------

      SPECIES     DIFFUSIVITY      ALPHA STAR      REACTIVITY     MESOPHYLL RESISTANCE     HENRY'S LAW COEFFICIENT
       NAME        (cm**2/s)                                            (s/cm)                 (dimensionless)
      -------     -----------      ----------      ----------     --------------------     -----------------------

!         SO2 =      0.1509,          1000,            8,                 0,                     0.04 !
!         NOX =      0.1656,             1,            8,                 5,                      3.5 !
!        HNO3 =      0.1628,             1,           18,                 0,               0.00000008 !

!END!

-------------------------------------------------------------------------------

INPUT GROUP: 8 -- Size parameters for dry deposition of particles
--------------

     For SINGLE SPECIES, the mean and standard deviation are used to
     compute a deposition velocity for NINT (see group 9) size-ranges,
     and these are then averaged to obtain a mean deposition velocity.

     For GROUPED SPECIES, the size distribution should be explicitly
     specified (by the 'species' in the group), and the standard deviation
     for each should be entered as 0.  The model will then use the
     deposition velocity for the stated mean diameter.

      SPECIES      GEOMETRIC MASS MEAN        GEOMETRIC STANDARD
       NAME            DIAMETER                   DEVIATION
                       (microns)                  (microns)
      -------      -------------------        ------------------
!         SO4 =          0.48,                      2.    !
!         NO3 =          0.48,                      2.    !
!      PM0063 =          0.63,                      0.    !
!      PM0100 =          1.00,                      0.    !
!      PM0125 =          1.25,                      0.    !
!      PM0250 =          2.50,                      0.    !
!      PM0600 =          6.00,                      0.    !
!      PM1000 =         10.00,                      0.    !

!END!

-------------------------------------------------------------------------------

INPUT GROUP: 9 -- Miscellaneous dry deposition parameters
--------------

     Reference cuticle resistance (s/cm)
     (RCUTR)                           Default: 30     !  RCUTR = 30.0 !
     Reference ground resistance  (s/cm)
     (RGR)                             Default: 10     !    RGR = 10.0 !
     Reference pollutant reactivity
     (REACTR)                          Default: 8      ! REACTR = 8.0 !

     Number of particle-size intervals used to
     evaluate effective particle deposition velocity
     (NINT)                            Default: 9      !   NINT =  9   !

     Vegetation state in unirrigated areas
     (IVEG)                            Default: 1      !   IVEG =  1   !
        IVEG=1 for active and unstressed vegetation
        IVEG=2 for active and stressed vegetation
        IVEG=3 for inactive vegetation

!END!

-------------------------------------------------------------------------------

INPUT GROUP: 10 -- Wet Deposition Parameters
---------------

                      Scavenging Coefficient -- Units: (sec)**(-1)
```

```
       Pollutant       Liquid Precip.       Frozen Precip.
       ---------       --------------       --------------
!          SO2 =          3.0E-05,              0.0E00 !
!          SO4 =          1.0E-04,              3.0E-05 !
!         HNO3 =          6.0E-05,              0.0E00 !
!          NO3 =          1.0E-04,              3.0E-05 !
!       PM0063 =          1.0E-04,              3.0E-05 !
!       PM0100 =          1.0E-04,              3.0E-05 !
!       PM0125 =          1.0E-04,              3.0E-05 !
!       PM0250 =          1.0E-04,              3.0E-05 !
!       PM0600 =          1.0E-04,              3.0E-05 !
!       PM1000 =          1.0E-04,              3.0E-05 !

!END!

---------------------------------------------------------------------------------

INPUT GROUP: 11 -- Chemistry Parameters
---------------

     Ozone data input option (MOZ)     Default: 1            ! MOZ =  1   !
     (Used only if MCHEM = 1, 3, or 4)
        0 = use a monthly background ozone value
        1 = read hourly ozone concentrations from
            the OZONE.DAT data file

     Monthly ozone concentrations
     (Used only if MCHEM = 1, 3, or 4 and
      MOZ = 0 or MOZ = 1 and all hourly O3 data missing)
     (BCKO3) in ppb                    Default: 12*80.
     !  BCKO3 = 12*50. !

     Monthly ammonia concentrations
     (Used only if MCHEM = 1, or 3)
     (BCKNH3) in ppb                   Default: 12*10.
     !  BCKNH3 = 12*0.5 !

     Nighttime SO2 loss rate (RNITE1)
     in percent/hour                   Default: 0.2          ! RNITE1 = .2 !

     Nighttime NOx loss rate (RNITE2)
     in percent/hour                   Default: 2.0          ! RNITE2 = 2.0 !

     Nighttime HNO3 formation rate (RNITE3)
     in percent/hour                   Default: 2.0          ! RNITE3 = 2.0 !

     H2O2 data input option (MH2O2)    Default: 1            ! MH2O2 =  1   !
     (Used only if MAQCHEM = 1)
        0 = use a monthly background H2O2 value
        1 = read hourly H2O2 concentrations from
            the H2O2.DAT data file

     Monthly H2O2 concentrations
     (Used only if MQACHEM = 1 and
      MH2O2 = 0 or MH2O2 = 1 and all hourly H2O2 data missing)
     (BCKH2O2) in ppb                  Default: 12*1.
     !  BCKH2O2 = 12*1 !

  --- Data for SECONDARY ORGANIC AEROSOL (SOA) Option
     (used only if MCHEM = 4)

     The SOA module uses monthly values of:
          Fine particulate concentration in ug/m^3 (BCKPMF)
          Organic fraction of fine particulate     (OFRAC)
          VOC / NOX ratio (after reaction)         (VCNX)
     to characterize the air mass when computing
     the formation of SOA from VOC emissions.
     Typical values for several distinct air mass types are:

        Month    1    2    3    4    5    6    7    8    9   10   11   12
                Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

     Clean Continental
        BCKPMF   1.   1.   1.   1.   1.   1.   1.   1.   1.   1.   1.   1.
        OFRAC   .15  .15  .20  .20  .20  .20  .20  .20  .20  .20  .20  .15
        VCNX    50.  50.  50.  50.  50.  50.  50.  50.  50.  50.  50.  50.

     Clean Marine (surface)
        BCKPMF  .5   .5   .5   .5   .5   .5   .5   .5   .5   .5   .5   .5
        OFRAC   .25  .25  .30  .30  .30  .30  .30  .30  .30  .30  .30  .25
        VCNX    50.  50.  50.  50.  50.  50.  50.  50.  50.  50.  50.  50.

     Urban - low biogenic (controls present)
        BCKPMF  30.  30.  30.  30.  30.  30.  30.  30.  30.  30.  30.  30.
        OFRAC   .20  .20  .25  .25  .25  .25  .25  .25  .20  .20  .20  .20
```

```
         VCNX      4.   4.   4.   4.   4.   4.   4.   4.   4.   4.   4.   4.

      Urban - high biogenic (controls present)
         BCKPMF  60.  60.  60.  60.  60.  60.  60.  60.  60.  60.  60.  60.
         OFRAC  .25  .25  .30  .30  .30  .55  .55  .55  .35  .35  .35  .25
         VCNX    15.  15.  15.  15.  15.  15.  15.  15.  15.  15.  15.  15.

      Regional Plume
         BCKPMF  20.  20.  20.  20.  20.  20.  20.  20.  20.  20.  20.  20.
         OFRAC  .20  .20  .25  .35  .25  .40  .40  .40  .30  .30  .30  .20
         VCNX    15.  15.  15.  15.  15.  15.  15.  15.  15.  15.  15.  15.

      Urban - no controls present
         BCKPMF 100. 100. 100. 100. 100. 100. 100. 100. 100. 100. 100. 100.
         OFRAC  .30  .30  .35  .35  .35  .55  .55  .55  .35  .35  .35  .30
         VCNX     2.   2.   2.   2.   2.   2.   2.   2.   2.   2.   2.   2.

      Default: Clean Continental
      !  BCKPMF = 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00 !
      !  OFRAC  = 0.15, 0.15, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.15 !
      !  VCNX   = 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00 !


!END!


-------------------------------------------------------------------------------


INPUT GROUP: 12 -- Misc. Dispersion and Computational Parameters
---------------

      Horizontal size of puff (m) beyond which
      time-dependent dispersion equations (Heffter)
      are used to determine sigma-y and
      sigma-z (SYTDEP)                           Default: 550.   ! SYTDEP = 5.5E02 !

      Switch for using Heffter equation for sigma z
      as above (0 = Not use Heffter; 1 = use Heffter
      (MHFTSZ)                                   Default: 0      ! MHFTSZ =  0   !

      Stability class used to determine plume
      growth rates for puffs above the boundary
      layer (JSUP)                               Default: 5      ! JSUP =  5   !

      Vertical dispersion constant for stable
      conditions (k1 in Eqn. 2.7-3)  (CONK1)     Default: 0.01   ! CONK1 = .01 !

      Vertical dispersion constant for neutral/
      unstable conditions (k2 in Eqn. 2.7-4)
      (CONK2)                                    Default: 0.1    ! CONK2 = .1 !

      Factor for determining Transition-point from
      Schulman-Scire to Huber-Snyder Building Downwash
      scheme (SS used for Hs < Hb + TBD * HL)
      (TBD)                                      Default: 0.5    ! TBD = .5 !
         TBD < 0   ==> always use Huber-Snyder
         TBD = 1.5 ==> always use Schulman-Scire
         TBD = 0.5 ==> ISC Transition-point

      Range of land use categories for which
      urban dispersion is assumed
      (IURB1, IURB2)                             Default: 10     ! IURB1 =  10  !
                                                          19     ! IURB2 =  19  !

      Site characterization parameters for single-point Met data files ---------
      (needed for METFM = 2,3,4,5)

         Land use category for modeling domain
         (ILANDUIN)                              Default: 20     ! ILANDUIN =  20  !

         Roughness length (m) for modeling domain
         (Z0IN)                                  Default: 0.25   ! Z0IN = .25 !

         Leaf area index for modeling domain
         (XLAIIN)                                Default: 3.0    ! XLAIIN = 3.0 !

         Elevation above sea level (m)
         (ELEVIN)                                Default: 0.0    ! ELEVIN = .0 !

         Latitude (degrees) for met location
         (XLATIN)                                Default: -999.  ! XLATIN = -999.0 !

         Longitude (degrees) for met location
         (XLONIN)                                Default: -999.  ! XLONIN = -999.0 !

      Specialized information for interpreting single-point Met data files -----
```

```
     Anemometer height (m) (Used only if METFM = 2,3)
     (ANEMHT)                                  Default: 10.    ! ANEMHT = 10.0 !

     Form of lateral turbulance data in PROFILE.DAT file
     (Used only if METFM = 4,5 or MTURBVW = 1 or 3)
     (ISIGMAV)                                 Default: 1      ! ISIGMAV =  1  !
         0 = read sigma-theta
         1 = read sigma-v

     Choice of mixing heights (Used only if METFM = 4)
     (IMIXCTDM)                                Default: 0      ! IMIXCTDM =  0  !
         0 = read PREDICTED mixing heights
         1 = read OBSERVED mixing heights

  Maximum length of a slug (met. grid units)
  (XMXLEN)                                     Default: 1.0    ! XMXLEN = 1.0 !

  Maximum travel distance of a puff/slug (in
  grid units) during one sampling step
  (XSAMLEN)                                    Default: 1.0    ! XSAMLEN = 1.0 !

  Maximum Number of slugs/puffs release from
  one source during one time step
  (MXNEW)                                      Default: 99     ! MXNEW =  99   !

  Maximum Number of sampling steps for
  one puff/slug during one time step
  (MXSAM)                                      Default: 99     ! MXSAM =  99   !

  Number of iterations used when computing
  the transport wind for a sampling step
  that includes gradual rise (for CALMET
  and PROFILE winds)
  (NCOUNT)                                     Default: 2      ! NCOUNT =  2   !

  Minimum sigma y for a new puff/slug (m)
  (SYMIN)                                      Default: 1.0    ! SYMIN = 1.0  !

  Minimum sigma z for a new puff/slug (m)
  (SZMIN)                                      Default: 1.0    ! SZMIN = 1.0  !

  Default minimum turbulence velocities sigma-v and sigma-w
  for each stability class over land and over water (m/s)
  (SVMIN(12) and SWMIN(12))

                  ---------- LAND ----------        --------- WATER ----------
     Stab Class : A    B    C    D    E    F         A    B    C    D    E    F
                  ---  ---  ---  ---  ---  ---       ---  ---  ---  ---  ---  ---
  Default SVMIN : .50, .50, .50, .50, .50, .50,      .37, .37, .37, .37, .37, .37
  Default SWMIN : .20, .12, .08, .06, .03, .016,     .20, .12, .08, .06, .03, .016

        * SVMIN = 0.500, 0.500, 0.500, 0.500, 0.500, 0.500, 0.370, 0.370, 0.370, 0.370, 0.370, 0.370*
        ! SVMIN = 0.500, 0.500, 0.500, 0.500, 0.500, 0.500, 0.500, 0.500, 0.500, 0.500, 0.500, 0.500!
        ! SWMIN = 0.200, 0.120, 0.080, 0.060, 0.030, 0.016, 0.200, 0.120, 0.080, 0.060, 0.030, 0.016!

  Divergence criterion for dw/dz across puff
  used to initiate adjustment for horizontal
  convergence (1/s)
  Partial adjustment starts at CDIV(1), and
  full adjustment is reached at CDIV(2)
  (CDIV(2))                                    Default: 0.0,0.0  ! CDIV = .0, .0 !

  Minimum wind speed (m/s) allowed for
  non-calm conditions. Also used as minimum
  speed returned when using power-law
  extrapolation toward surface
  (WSCALM)                                     Default: 0.5    ! WSCALM = .5 !

  Maximum mixing height (m)
  (XMAXZI)                                     Default: 3000.  ! XMAXZI = 3000.0 !

  Minimum mixing height (m)
  (XMINZI)                                     Default: 50.    ! XMINZI = 50.0 !

  Default wind speed classes --
  5 upper bounds (m/s) are entered;
  the 6th class has no upper limit
  (WSCAT(5))                      Default    :
                                  ISC RURAL : 1.54, 3.09, 5.14, 8.23, 10.8 (10.8+)

                         Wind Speed Class :  1     2     3     4     5
                                            ---   ---   ---   ---   ---
                                   ! WSCAT = 1.54, 3.09, 5.14, 8.23, 10.80 !

  Default wind speed profile power-law
  exponents for stabilities 1-6
  (PLX0(6))                       Default    : ISC RURAL values
                                  ISC RURAL : .07, .07, .10, .15, .35, .55
```

```
                              ISC URBAN : .15, .15, .20, .25, .30, .30

                     Stability Class :  A     B     C     D     E     F
                                       ---   ---   ---   ---   ---   ---
                           ! PLX0 = 0.07, 0.07, 0.10, 0.15, 0.35, 0.55 !

Default potential temperature gradient
for stable classes E, F (degK/m)
(PTG0(2))                     Default: 0.020, 0.035
                                ! PTG0 = 0.020,   0.035 !

Default plume path coefficients for
each stability class (used when option
for partial plume height terrain adjustment
is selected -- MCTADJ=3)
(PPC(6))             Stability Class :  A     B     C     D     E     F
                        Default  PPC : .50,  .50,  .50,  .50,  .35,  .35
                                       ---   ---   ---   ---   ---   ---
                            !  PPC = 0.50, 0.50, 0.50, 0.50, 0.35, 0.35 !

Slug-to-puff transition criterion factor
equal to sigma-y/length of slug
(SL2PF)                             Default: 10.        ! SL2PF = 10.0 !

Puff-splitting control variables ------------------------

  VERTICAL SPLIT
  --------------

  Number of puffs that result every time a puff
  is split - nsplit=2 means that 1 puff splits
  into 2
  (NSPLIT)                          Default:   3        ! NSPLIT =  3  !

  Time(s) of a day when split puffs are eligible to
  be split once again; this is typically set once
  per day, around sunset before nocturnal shear develops.
  24 values: 0 is midnight (00:00) and 23 is 11 PM (23:00)
  0=do not re-split    1=eligible for re-split
  (IRESPLIT(24))                    Default:  Hour 17 = 1
  !  IRESPLIT = 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,1,0,0,0,0,0,0 !

  Split is allowed only if last hour's mixing
  height (m) exceeds a minimum value
  (ZISPLIT)                         Default: 100.       ! ZISPLIT = 100.0 !

  Split is allowed only if ratio of last hour's
  mixing ht to the maximum mixing ht experienced
  by the puff is less than a maximum value (this
  postpones a split until a nocturnal layer develops)
  (ROLDMAX)                         Default: 0.25       ! ROLDMAX = 0.25 !


  HORIZONTAL SPLIT
  ----------------

  Number of puffs that result every time a puff
  is split - nsplith=5 means that 1 puff splits
  into 5
  (NSPLITH)                         Default:   5        ! NSPLITH =  5  !

  Minimum sigma-y (Grid Cells Units) of puff
  before it may be split
  (SYSPLITH)                        Default:  1.0       ! SYSPLITH = 1.0 !

  Minimum puff elongation rate (SYSPLITH/hr) due to
  wind shear, before it may be split
  (SHSPLITH)                        Default:  2.        ! SHSPLITH = 2.0 !

  Minimum concentration (g/m^3) of each
  species in puff before it may be split
  Enter array of NSPEC values; if a single value is
  entered, it will be used for ALL species
  (CNSPLITH)                        Default:  1.0E-07   ! CNSPLITH = 1.0E-07 !

Integration control variables ------------------------

  Fractional convergence criterion for numerical SLUG
  sampling integration
  (EPSSLUG)                         Default:   1.0e-04  ! EPSSLUG = 1.0E-04 !

  Fractional convergence criterion for numerical AREA
  source integration
  (EPSAREA)                         Default:   1.0e-06  ! EPSAREA = 1.0E-06 !

  Trajectory step-length (m) used for numerical rise
  integration
  (DSRISE)                          Default:   1.0      ! DSRISE = 1.0 !
```

```
       Boundary Condition (BC) Puff control variables ------------------------

       Minimum height (m) to which BC puffs are mixed as they are emitted
       (MBCON=2 ONLY). Actual height is reset to the current mixing height
       at the release point if greater than this minimum.
       (HTMINBC)                          Default:   500.     ! HTMINBC = 500.0 !

       Search radius (km) about a receptor for sampling nearest BC puff.
       BC puffs are typically emitted with a spacing of one grid cell
       length, so the search radius should be greater than DGRIDKM.
       (RSAMPBC)                          Default:   10.      ! RSAMPBC = 10.0 !

       Near-Surface depletion adjustment to concentration profile used when
       sampling BC puffs?
       (MDEPBC)                           Default:   1        ! MDEPBC =  1  !
          0 = Concentration is NOT adjusted for depletion
          1 = Adjust Concentration for depletion

!END!


-------------------------------------------------------------------------------


INPUT GROUPS: 13a, 13b, 13c, 13d -- Point source parameters
--------------------------------

---------------
Subgroup (13a)
---------------

     Number of point sources with
     parameters provided below       (NPT1)  No default  !  NPT1 =  1 !

     Units used for point source
     emissions below                 (IPTU)  Default: 1  !  IPTU =   3  !
           1 =       g/s
           2 =      kg/hr
           3 =       lb/hr
           4 =     tons/yr
           5 =     Odour Unit * m**3/s  (vol. flux of odour compound)
           6 =     Odour Unit * m**3/min
           7 =     metric tons/yr

     Number of source-species
     combinations with variable
     emissions scaling factors
     provided below in (13d)         (NSPT1) Default: 0  !  NSPT1 = 0  !

     Number of point sources with
     variable emission parameters
     provided in external file       (NPT2)  No default  !  NPT2 =  0  !

     (If NPT2 > 0, these point
     source emissions are read from
     the file: PTEMARB.DAT)

!END!

---------------
Subgroup (13b)
---------------
                                          a
          POINT SOURCE: CONSTANT DATA
          -----------------------------
                                                                                  b          c
  Source       X           Y       Stack    Base     Stack    Exit  Exit    Bldg.  Emission
   No.     Coordinate Coordinate Height Elevation Diameter  Vel.  Temp.   Dwash   Rates
              (km)       (km)      (m)      (m)       (m)   (m/s) (deg. K)
  ------   ---------- ---------- ------  ------   -------- ----- -------- ----- --------
***************  EMISSION RATES ARE IN LB/HR    ************************

 1  ! SRCNAM = CCDBGAS !
 1  ! X = 1670.02, -1328.24, 45.4, 4.00, 6.71, 18.89, 358.6, 1.0, 53.1, 11.52, 76.5, 0.0, 0.0,
            6.9, 6.9, 4.8, 4.8, 0.0, 0.0, 177.3 !
 !END!

--------

    a
     Data for each source are treated as a separate input subgroup
     and therefore must end with an input group terminator.

     SRCNAM  is a 12-character name for a source
             (No default)
     X       is an array holding the source data listed by the column headings
             (No default)
```

```
     SIGYZI   is an array holding the initial sigma-y and sigma-z (m)
              (Default: 0.,0.)
     FMFAC    is a vertical momentum flux factor (0. or 1.0) used to represent
              the effect of rain-caps or other physical configurations that
              reduce momentum rise associated with the actual exit velocity.
              (Default: 1.0  -- full momentum used)
     ZPLTFM   is the platform height (m) for sources influenced by an isolated
              structure that has a significant open area between the surface
              and the bulk of the structure, such as an offshore oil platform.
              The Base Elevation is


    b
     0. = No building downwash modeled, 1. = downwash modeled
     1. = Downwash modeled for buildings resting on the surface
     2. = Downwash modeled for buildings raised above the surface (ZPLTFM > 0.)
     NOTE: must be entered as a REAL number (i.e., with decimal point)

    c
     An emission rate must be entered for every pollutant modeled.
     Enter emission rate of zero for secondary pollutants that are
     modeled, but not emitted.  Units are specified by IPTU
     (e.g. 1 for g/s).

---------------
Subgroup (13c)
---------------

           BUILDING DIMENSION DATA FOR SOURCES SUBJECT TO DOWNWASH
           -------------------------------------------------------
Source                                                                  a
 No.       Effective building height, width, length and X/Y offset (in meters)
           every 10 degrees.  LENGTH, XBADJ, and YBADJ are only needed for
           MBDW=2 (PRIME downwash option)
------     --------------------------------------------------------------------

Subgroup (13c)

       1  ! SRCNAM = CCDBGAS  !
       1  !  HEIGHT =  31.39,   31.39,   31.39,   31.39,   31.39,   31.39,
                 31.39,  31.39,  31.39,  31.39,  31.39,  31.39,
                 31.39,  31.39,  31.39,  31.39,  31.39,  31.39,
                 31.39,  31.39,  31.39,  31.39,  31.39,  31.39,
                 31.39,  31.39,  31.39,  31.39,  31.39,  31.39,
                 31.39,  31.39,  31.39,  31.39,  31.39,  31.39 !
       1  !  WIDTH =   43.42,   43.33,   41.93,   39.26,   35.39,   30.44,
                 24.57,  17.96,  10.80,  16.56,  23.30,  29.34,
                 34.48,  38.57,  41.50,  43.16,  43.51,  42.54,
                 43.42,  43.33,  41.93,  39.26,  35.39,  30.44,
                 24.57,  17.96,  10.80,  16.56,  23.30,  29.34,
                 34.48,  38.57,  41.50,  43.16,  43.51,  42.54 !
!END!

--------

    a
     Building height, width, length, and X/Y offset from the source are treated
     as a separate input subgroup for each source and therefore must end with
     an input group terminator.  The X/Y offset is the position, relative to the
     stack, of the center of the upwind face of the projected building, with the
     x-axis pointing along the flow direction.

---------------
Subgroup (13d)
---------------
                                                 a
          POINT SOURCE: VARIABLE EMISSIONS DATA
          -------------------------------------

     Use this subgroup to describe temporal variations in the emission
     rates given in 13b.  Factors entered multiply the rates in 13b.
     Skip sources here that have constant emissions.  For more elaborate
     variation in source parameters, use PTEMARB.DAT and NPT2 > 0.

     IVARY determines the type of variation, and is source-specific:
     (IVARY)                              Default: 0
           0 =       Constant
           1 =       Diurnal cycle (24 scaling factors: hours 1-24)
           2 =       Monthly cycle (12 scaling factors: months 1-12)
           3 =       Hour & Season (4 groups of 24 hourly scaling factors,
                                    where first group is DEC-JAN-FEB)
           4 =       Speed & Stab. (6 groups of 6 scaling factors, where
                                    first group is Stability Class A,
                                    and the speed classes have upper
                                    bounds (m/s) defined in Group 12
           5 =       Temperature   (12 scaling factors, where temperature
                                    classes have upper bounds (C) of:
                                    0, 5, 10, 15, 20, 25, 30, 35, 40,
```

```
                                        45, 50, 50+)

--------
    a
     Data for each species are treated as a separate input subgroup
     and therefore must end with an input group terminator.


------------------------------------------------------------------------------


INPUT GROUPS: 14a, 14b, 14c, 14d -- Area source parameters
--------------------------------

---------------
Subgroup (14a)
---------------

     Number of polygon area sources with
     parameters specified below (NAR1)        No default  !  NAR1 =  0   !

     Units used for area source
     emissions below              (IARU)       Default: 1  !  IARU =   1  !
           1 =        g/m**2/s
           2 =       kg/m**2/hr
           3 =       lb/m**2/hr
           4 =     tons/m**2/yr
           5 =     Odour Unit * m/s  (vol. flux/m**2 of odour compound)
           6 =     Odour Unit * m/min
           7 =     metric tons/m**2/yr

     Number of source-species
     combinations with variable
     emissions scaling factors
     provided below in (14d)        (NSAR1) Default: 0  !  NSAR1 =  0  !

     Number of buoyant polygon area sources
     with variable location and emission
     parameters (NAR2)                       No default  !  NAR2 =  0   !
     (If NAR2 > 0, ALL parameter data for
     these sources are read from the file: BAEMARB.DAT)

!END!

---------------
Subgroup (14b)
---------------
                                               a
          AREA SOURCE: CONSTANT DATA
          ----------------------------
                                                                  b
Source            Effect.    Base      Initial    Emission
 No.              Height   Elevation   Sigma z     Rates
                    (m)       (m)        (m)
-------           ------    ------    --------   ---------


--------
    a
     Data for each source are treated as a separate input subgroup
     and therefore must end with an input group terminator.
    b
     An emission rate must be entered for every pollutant modeled.
     Enter emission rate of zero for secondary pollutants that are
     modeled, but not emitted.  Units are specified by IARU
     (e.g. 1 for g/m**2/s).

---------------
Subgroup (14c)
---------------

          COORDINATES (UTM-km) FOR EACH VERTEX(4) OF EACH POLYGON
          --------------------------------------------------------
Source                                                             a
 No.      Ordered list of X followed by list of Y, grouped by source
------    ------------------------------------------------------------


--------
    a
     Data for each source are treated as a separate input subgroup
     and therefore must end with an input group terminator.


---------------
Subgroup (14d)
---------------
```

```
                                                 a
         AREA SOURCE: VARIABLE EMISSIONS DATA
         ------------------------------------

      Use this subgroup to describe temporal variations in the emission
      rates given in 14b.  Factors entered multiply the rates in 14b.
      Skip sources here that have constant emissions.  For more elaborate
      variation in source parameters, use BAEMARB.DAT and NAR2 > 0.

      IVARY determines the type of variation, and is source-specific:
      (IVARY)                                Default: 0
            0 =       Constant
            1 =       Diurnal cycle (24 scaling factors: hours 1-24)
            2 =       Monthly cycle (12 scaling factors: months 1-12)
            3 =       Hour & Season (4 groups of 24 hourly scaling factors,
                                     where first group is DEC-JAN-FEB)
            4 =       Speed & Stab. (6 groups of 6 scaling factors, where
                                     first group is Stability Class A,
                                     and the speed classes have upper
                                     bounds (m/s) defined in Group 12
            5 =       Temperature   (12 scaling factors, where temperature
                                     classes have upper bounds (C) of:
                                     0, 5, 10, 15, 20, 25, 30, 35, 40,
                                     45, 50, 50+)


--------
    a
     Data for each species are treated as a separate input subgroup
     and therefore must end with an input group terminator.


-------------------------------------------------------------------------------

INPUT GROUPS: 15a, 15b, 15c -- Line source parameters
---------------------------

---------------
Subgroup (15a)
---------------

      Number of buoyant line sources
      with variable location and emission
      parameters (NLN2)                            No default  !  NLN2 =  0   !

      (If NLN2 > 0, ALL parameter data for
       these sources are read from the file: LNEMARB.DAT)

      Number of buoyant line sources (NLINES)      No default   ! NLINES =  0  !

      Units used for line source
      emissions below               (ILNU)         Default: 1  !  ILNU =   1  !
            1 =       g/s
            2 =       kg/hr
            3 =       lb/hr
            4 =     tons/yr
            5 =     Odour Unit * m**3/s  (vol. flux of odour compound)
            6 =     Odour Unit * m**3/min
            7 =     metric tons/yr

      Number of source-species
      combinations with variable
      emissions scaling factors
      provided below in (15c)       (NSLN1) Default: 0  !  NSLN1 =  0  !

      Maximum number of segments used to model
      each line (MXNSEG)                           Default: 7   ! MXNSEG =  7  !

      The following variables are required only if NLINES > 0.  They are
      used in the buoyant line source plume rise calculations.

         Number of distances at which              Default: 6   ! NLRISE =  6  !
         transitional rise is computed

         Average building length (XL)              No default   ! XL = .0 !
                                                   (in meters)

         Average building height (HBL)             No default   ! HBL = .0 !
                                                   (in meters)

         Average building width (WBL)              No default   ! WBL = .0 !
                                                   (in meters)

         Average line source width (WML)           No default   ! WML = .0 !
                                                   (in meters)

         Average separation between buildings (DXL) No default  ! DXL = .0 !
```

```
                                                  (in meters)

      Average buoyancy parameter (FPRIMEL)        No default    ! FPRIMEL = .0 !
                                                  (in m**4/s**3)

!END!

---------------
Subgroup (15b)
---------------

        BUOYANT LINE SOURCE: CONSTANT DATA
        ----------------------------------
                                                                                   a
Source   Beg. X     Beg. Y     End. X    End. Y     Release   Base        Emission
 No.   Coordinate Coordinate Coordinate Coordinate Height   Elevation      Rates
          (km)       (km)       (km)      (km)       (m)       (m)
------  ---------- ---------- --------- ---------- -------  ---------   ---------

--------
    a
     Data for each source are treated as a separate input subgroup
     and therefore must end with an input group terminator.

    b
     An emission rate must be entered for every pollutant modeled.
     Enter emission rate of zero for secondary pollutants that are
     modeled, but not emitted.  Units are specified by ILNTU
     (e.g. 1 for g/s).

---------------
Subgroup (15c)
---------------
                                                         a
        BUOYANT LINE SOURCE: VARIABLE EMISSIONS DATA
        ---------------------------------------------

     Use this subgroup to describe temporal variations in the emission
     rates given in 15b.  Factors entered multiply the rates in 15b.
     Skip sources here that have constant emissions.

     IVARY determines the type of variation, and is source-specific:
     (IVARY)                              Default: 0
           0 =       Constant
           1 =       Diurnal cycle (24 scaling factors: hours 1-24)
           2 =       Monthly cycle (12 scaling factors: months 1-12)
           3 =       Hour & Season (4 groups of 24 hourly scaling factors,
                                    where first group is DEC-JAN-FEB)
           4 =       Speed & Stab. (6 groups of 6 scaling factors, where
                                    first group is Stability Class A,
                                    and the speed classes have upper
                                    bounds (m/s) defined in Group 12
           5 =       Temperature   (12 scaling factors, where temperature
                                    classes have upper bounds (C) of:
                                    0, 5, 10, 15, 20, 25, 30, 35, 40,
                                    45, 50, 50+)


--------
    a
     Data for each species are treated as a separate input subgroup
     and therefore must end with an input group terminator.


------------------------------------------------------------------------------


INPUT GROUPS: 16a, 16b, 16c -- Volume source parameters
--------------------------

---------------
Subgroup (16a)
---------------

     Number of volume sources with
     parameters provided in 16b,c (NVL1)     No default  !  NVL1 =  0   !

     Units used for volume source
     emissions below in 16b       (IVLU)     Default: 1  !  IVLU =   1  !
           1 =        g/s
           2 =       kg/hr
           3 =        lb/hr
           4 =      tons/yr
           5 =      Odour Unit * m**3/s  (vol. flux of odour compound)
           6 =      Odour Unit * m**3/min
           7 =      metric tons/yr
```

```
     Number of source-species
     combinations with variable
     emissions scaling factors
     provided below in (16c)      (NSVL1)    Default: 0  !  NSVL1 =  0  !

     Number of volume sources with
     variable location and emission
     parameters                   (NVL2)     No default  !  NVL2 =   0   !

     (If NVL2 > 0, ALL parameter data for
      these sources are read from the VOLEMARB.DAT file(s) )

!END!

---------------
Subgroup (16b)
---------------
                                            a
           VOLUME SOURCE: CONSTANT DATA
           ------------------------------
                                                                                b
         X UTM      Y UTM     Effect.    Base     Initial    Initial    Emission
     Coordinate  Coordinate   Height   Elevation  Sigma y    Sigma z     Rates
        (km)        (km)        (m)       (m)       (m)        (m)
     ----------  ----------   ------    ------   --------   --------   --------


--------
    a
     Data for each source are treated as a separate input subgroup
     and therefore must end with an input group terminator.

    b
     An emission rate must be entered for every pollutant modeled.
     Enter emission rate of zero for secondary pollutants that are
     modeled, but not emitted.  Units are specified by IVLU
     (e.g. 1 for g/s).

---------------
Subgroup (16c)
---------------
                                                     a
          VOLUME SOURCE: VARIABLE EMISSIONS DATA
          ----------------------------------------

     Use this subgroup to describe temporal variations in the emission
     rates given in 16b.  Factors entered multiply the rates in 16b.
     Skip sources here that have constant emissions.  For more elaborate
     variation in source parameters, use VOLEMARB.DAT and NVL2 > 0.

     IVARY determines the type of variation, and is source-specific:
     (IVARY)                                Default: 0
           0 =       Constant
           1 =       Diurnal cycle  (24 scaling factors: hours 1-24)
           2 =       Monthly cycle  (12 scaling factors: months 1-12)
           3 =       Hour & Season  (4 groups of 24 hourly scaling factors,
                                     where first group is DEC-JAN-FEB)
           4 =       Speed & Stab.  (6 groups of 6 scaling factors, where
                                     first group is Stability Class A,
                                     and the speed classes have upper
                                     bounds (m/s) defined in Group 12
           5 =       Temperature    (12 scaling factors, where temperature
                                     classes have upper bounds (C) of:
                                     0, 5, 10, 15, 20, 25, 30, 35, 40,
                                     45, 50, 50+)


--------
    a
     Data for each species are treated as a separate input subgroup
     and therefore must end with an input group terminator.


--------------------------------------------------------------------------------

INPUT GROUPS: 17a & 17b -- Non-gridded (discrete) receptor information
-----------------------

---------------
Subgroup (17a)
---------------

     Number of non-gridded receptors (NREC)  No default  !  NREC = 901 !

!END!
```

```
---------------
Subgroup (17b)
---------------
                                                 a
           NON-GRIDDED (DISCRETE) RECEPTOR DATA
           ------------------------------------

                        X             Y            Ground         Height    b
Receptor            Coordinate    Coordinate     Elevation    Above Ground
  No.                  (km)          (km)           (m)            (m)
--------           ----------    ----------     ---------     ------------
RECEPTORS OBTAINED FROM THE NPS/FWS EXTRACTION PROGRAM
ALL RECEPTORS ARE LCC (KM)

RECEPTORS OBTAINED FROM THE NPS/FWS EXTRACTION PROGRAM
ALL RECEPTORS ARE LCC (KM)
      1 ! X =    1660.127,   -1542.381,         0,        0.000!    !END!
      2 ! X =    1654.541,   -1540.491,         0,        0.000!    !END!
      3 ! X =    1657.082,   -1540.035,         0,        0.000!    !END!
      4 ! X =    1659.624,   -1539.579,         0,        0.000!    !END!
      5 ! X =    1662.165,   -1539.122,         0,        0.000!    !END!
      6 ! X =    1664.706,   -1538.665,         0,        0.000!    !END!
      7 ! X =    1651.498,   -1538.144,         0,        0.000!    !END!
      8 ! X =    1654.039,   -1537.689,         0,        0.000!    !END!
      9 ! X =    1656.580,   -1537.234,         0,        0.000!    !END!
     10 ! X =    1659.121,   -1536.778,         0,        0.000!    !END!
     11 ! X =    1661.661,   -1536.321,         0,        0.000!    !END!
     12 ! X =    1664.201,   -1535.864,         0,        0.000!    !END!
     13 ! X =    1666.742,   -1535.406,         0,        0.000!    !END!
     14 ! X =    1669.282,   -1534.947,         0,        0.000!    !END!
     15 ! X =    1648.457,   -1535.797,         0,        0.000!    !END!
     16 ! X =    1650.998,   -1535.343,         0,        0.000!    !END!
     17 ! X =    1653.538,   -1534.888,         0,        0.000!    !END!
     18 ! X =    1656.078,   -1534.433,         0,        0.000!    !END!
     19 ! X =    1658.617,   -1533.977,         0,        0.000!    !END!
     20 ! X =    1661.157,   -1533.520,         0,        0.000!    !END!
     21 ! X =    1663.697,   -1533.063,         0,        0.000!    !END!
     22 ! X =    1666.236,   -1532.605,         0,        0.000!    !END!
     23 ! X =    1668.775,   -1532.146,         0,        0.000!    !END!
     24 ! X =    1671.315,   -1531.687,         0,        0.000!    !END!
     25 ! X =    1673.854,   -1531.227,         0,        0.000!    !END!
     26 ! X =    1645.418,   -1533.449,         0,        0.000!    !END!
     27 ! X =    1647.957,   -1532.996,         0,        0.000!    !END!
     28 ! X =    1650.497,   -1532.542,         0,        0.000!    !END!
     29 ! X =    1653.036,   -1532.087,         0,        0.000!    !END!
     30 ! X =    1655.575,   -1531.632,         0,        0.000!    !END!
     31 ! X =    1658.114,   -1531.177,         0,        0.000!    !END!
     32 ! X =    1660.653,   -1530.720,         0,        0.000!    !END!
     33 ! X =    1663.192,   -1530.263,         0,        0.000!    !END!
     34 ! X =    1665.731,   -1529.805,         0,        0.000!    !END!
     35 ! X =    1668.269,   -1529.346,         0,        0.000!    !END!
     36 ! X =    1670.808,   -1528.887,         0,        0.000!    !END!
     37 ! X =    1673.346,   -1528.427,         0,        0.000!    !END!
     38 ! X =    1675.884,   -1527.966,         0,        0.000!    !END!
     39 ! X =    1642.380,   -1531.100,         0,        0.000!    !END!
     40 ! X =    1644.918,   -1530.648,         0,        0.000!    !END!
     41 ! X =    1647.457,   -1530.195,         0,        0.000!    !END!
     42 ! X =    1649.996,   -1529.741,         0,        0.000!    !END!
     43 ! X =    1652.534,   -1529.287,         0,        0.000!    !END!
     44 ! X =    1655.073,   -1528.832,         0,        0.000!    !END!
     45 ! X =    1657.611,   -1528.376,         0,        0.000!    !END!
     46 ! X =    1660.149,   -1527.920,         0,        0.000!    !END!
     47 ! X =    1662.687,   -1527.463,         0,        0.000!    !END!
     48 ! X =    1665.225,   -1527.005,         0,        0.000!    !END!
     49 ! X =    1667.763,   -1526.547,         0,        0.000!    !END!
     50 ! X =    1670.301,   -1526.088,         0,        0.000!    !END!
     51 ! X =    1672.838,   -1525.628,         0,        0.000!    !END!
     52 ! X =    1675.376,   -1525.167,         0,        0.000!    !END!
     53 ! X =    1677.913,   -1524.706,         0,        0.000!    !END!
     54 ! X =    1680.450,   -1524.244,         0,        0.000!    !END!
     55 ! X =    1639.343,   -1528.750,         0,        0.000!    !END!
     56 ! X =    1641.881,   -1528.299,         0,        0.000!    !END!
     57 ! X =    1644.419,   -1527.847,         0,        0.000!    !END!
     58 ! X =    1646.957,   -1527.394,         0,        0.000!    !END!
     59 ! X =    1649.495,   -1526.941,         0,        0.000!    !END!
     60 ! X =    1652.033,   -1526.487,         0,        0.000!    !END!
     61 ! X =    1654.571,   -1526.032,         0,        0.000!    !END!
     62 ! X =    1657.108,   -1525.576,         0,        0.000!    !END!
     63 ! X =    1659.645,   -1525.120,         0,        0.000!    !END!
     64 ! X =    1662.183,   -1524.663,         0,        0.000!    !END!
     65 ! X =    1664.720,   -1524.206,         0,        0.000!    !END!
     66 ! X =    1667.257,   -1523.747,         0,        0.000!    !END!
     67 ! X =    1669.794,   -1523.288,         0,        0.000!    !END!
     68 ! X =    1672.331,   -1522.829,         0,        0.000!    !END!
     69 ! X =    1674.867,   -1522.368,         0,        0.000!    !END!
     70 ! X =    1677.404,   -1521.907,         0,        0.000!    !END!
     71 ! X =    1679.940,   -1521.445,         0,        0.000!    !END!
     72 ! X =    1682.476,   -1520.983,         0,        0.000!    !END!
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 73 ! X =   1685.012,  -1520.520,     0,     0.000!  !END!
 74 ! X =   1636.308,  -1526.400,     0,     0.000!  !END!
 75 ! X =   1638.845,  -1525.950,     0,     0.000!  !END!
 76 ! X =   1641.383,  -1525.498,     0,     0.000!  !END!
 77 ! X =   1643.920,  -1525.046,     0,     0.000!  !END!
 78 ! X =   1646.457,  -1524.594,     0,     0.000!  !END!
 79 ! X =   1648.995,  -1524.141,     0,     0.000!  !END!
 80 ! X =   1651.531,  -1523.687,     0,     0.000!  !END!
 81 ! X =   1654.068,  -1523.232,     0,     0.000!  !END!
 82 ! X =   1656.605,  -1522.777,     0,     0.000!  !END!
 83 ! X =   1659.142,  -1522.320,     0,     0.000!  !END!
 84 ! X =   1661.678,  -1521.864,     0,     0.000!  !END!
 85 ! X =   1664.215,  -1521.406,     0,     0.000!  !END!
 86 ! X =   1666.751,  -1520.948,     0,     0.000!  !END!
 87 ! X =   1669.287,  -1520.489,     0,     0.000!  !END!
 88 ! X =   1671.823,  -1520.030,     0,     0.000!  !END!
 89 ! X =   1674.359,  -1519.569,     0,     0.000!  !END!
 90 ! X =   1676.895,  -1519.108,     0,     0.000!  !END!
 91 ! X =   1679.430,  -1518.647,     0,     0.000!  !END!
 92 ! X =   1681.966,  -1518.184,     0,     0.000!  !END!
 93 ! X =   1684.501,  -1517.721,     0,     0.000!  !END!
 94 ! X =   1687.036,  -1517.258,     0,     0.000!  !END!
 95 ! X =   1689.571,  -1516.793,     0,     0.000!  !END!
 96 ! X =   1635.811,  -1523.599,     0,     0.000!  !END!
 97 ! X =   1638.348,  -1523.149,     0,     0.000!  !END!
 98 ! X =   1640.884,  -1522.698,     0,     0.000!  !END!
 99 ! X =   1643.421,  -1522.246,     0,     0.000!  !END!
100 ! X =   1645.958,  -1521.794,     0,     0.000!  !END!
101 ! X =   1648.494,  -1521.341,     0,     0.000!  !END!
102 ! X =   1651.030,  -1520.887,     0,     0.000!  !END!
103 ! X =   1653.566,  -1520.432,     0,     0.000!  !END!
104 ! X =   1656.102,  -1519.977,     0,     0.000!  !END!
105 ! X =   1658.638,  -1519.521,     0,     0.000!  !END!
106 ! X =   1661.174,  -1519.065,     0,     0.000!  !END!
107 ! X =   1663.709,  -1518.607,     0,     0.000!  !END!
108 ! X =   1666.245,  -1518.149,     0,     0.000!  !END!
109 ! X =   1668.780,  -1517.690,     0,     0.000!  !END!
110 ! X =   1671.315,  -1517.231,     0,     0.000!  !END!
111 ! X =   1673.850,  -1516.771,     0,     0.000!  !END!
112 ! X =   1676.385,  -1516.310,     0,     0.000!  !END!
113 ! X =   1678.920,  -1515.849,     0,     0.000!  !END!
114 ! X =   1681.455,  -1515.386,     0,     0.000!  !END!
115 ! X =   1683.990,  -1514.923,     0,     0.000!  !END!
116 ! X =   1686.524,  -1514.460,     0,     0.000!  !END!
117 ! X =   1689.058,  -1513.995,     0,     0.000!  !END!
118 ! X =   1632.778,  -1521.249,     0,     0.000!  !END!
119 ! X =   1635.314,  -1520.799,     0,     0.000!  !END!
120 ! X =   1637.850,  -1520.349,     0,     0.000!  !END!
121 ! X =   1640.386,  -1519.898,     0,     0.000!  !END!
122 ! X =   1642.922,  -1519.446,     0,     0.000!  !END!
123 ! X =   1645.458,  -1518.994,     0,     0.000!  !END!
124 ! X =   1647.993,  -1518.541,     0,     0.000!  !END!
125 ! X =   1650.529,  -1518.087,     0,     0.000!  !END!
126 ! X =   1653.064,  -1517.633,     0,     0.000!  !END!
127 ! X =   1655.599,  -1517.178,     0,     0.000!  !END!
128 ! X =   1658.134,  -1516.722,     0,     0.000!  !END!
129 ! X =   1660.669,  -1516.266,     0,     0.000!  !END!
130 ! X =   1663.204,  -1515.808,     0,     0.000!  !END!
131 ! X =   1665.739,  -1515.351,     0,     0.000!  !END!
132 ! X =   1668.273,  -1514.892,     0,     0.000!  !END!
133 ! X =   1670.808,  -1514.433,     0,     0.000!  !END!
134 ! X =   1673.342,  -1513.973,     0,     0.000!  !END!
135 ! X =   1675.876,  -1513.512,     0,     0.000!  !END!
136 ! X =   1678.410,  -1513.051,     0,     0.000!  !END!
137 ! X =   1680.944,  -1512.589,     0,     0.000!  !END!
138 ! X =   1683.478,  -1512.126,     0,     0.000!  !END!
139 ! X =   1686.012,  -1511.662,     0,     0.000!  !END!
140 ! X =   1688.545,  -1511.198,     0,     0.000!  !END!
141 ! X =   1691.079,  -1510.733,     1,     0.000!  !END!
142 ! X =   1629.747,  -1518.897,     0,     0.000!  !END!
143 ! X =   1632.282,  -1518.449,     0,     0.000!  !END!
144 ! X =   1634.817,  -1517.999,     0,     0.000!  !END!
145 ! X =   1637.353,  -1517.549,     0,     0.000!  !END!
146 ! X =   1639.888,  -1517.098,     0,     0.000!  !END!
147 ! X =   1642.423,  -1516.647,     0,     0.000!  !END!
148 ! X =   1644.958,  -1516.195,     0,     0.000!  !END!
149 ! X =   1647.493,  -1515.742,     0,     0.000!  !END!
150 ! X =   1650.027,  -1515.288,     0,     0.000!  !END!
151 ! X =   1652.562,  -1514.834,     0,     0.000!  !END!
152 ! X =   1655.096,  -1514.379,     0,     0.000!  !END!
153 ! X =   1657.631,  -1513.923,     0,     0.000!  !END!
154 ! X =   1660.165,  -1513.467,     0,     0.000!  !END!
155 ! X =   1662.699,  -1513.010,     0,     0.000!  !END!
156 ! X =   1665.233,  -1512.552,     0,     0.000!  !END!
157 ! X =   1667.767,  -1512.094,     0,     0.000!  !END!
158 ! X =   1670.300,  -1511.635,     0,     0.000!  !END!
159 ! X =   1672.834,  -1511.175,     1,     0.000!  !END!
160 ! X =   1675.367,  -1510.714,     1,     0.000!  !END!
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161 ! X =    1677.901,   -1510.253,        0,        0.000!    !END!
162 ! X =    1680.434,   -1509.791,        0,        0.000!    !END!
163 ! X =    1682.967,   -1509.328,        0,        0.000!    !END!
164 ! X =    1685.500,   -1508.865,        0,        0.000!    !END!
165 ! X =    1688.033,   -1508.401,        0,        0.000!    !END!
166 ! X =    1690.565,   -1507.936,        0,        0.000!    !END!
167 ! X =    1693.098,   -1507.471,        0,        0.000!    !END!
168 ! X =    1626.717,   -1516.545,        0,        0.000!    !END!
169 ! X =    1629.251,   -1516.097,        0,        0.000!    !END!
170 ! X =    1631.786,   -1515.649,        1,        0.000!    !END!
171 ! X =    1634.321,   -1515.200,        0,        0.000!    !END!
172 ! X =    1636.855,   -1514.750,        0,        0.000!    !END!
173 ! X =    1639.390,   -1514.299,        1,        0.000!    !END!
174 ! X =    1641.924,   -1513.848,        0,        0.000!    !END!
175 ! X =    1644.458,   -1513.396,        0,        0.000!    !END!
176 ! X =    1646.992,   -1512.943,        0,        0.000!    !END!
177 ! X =    1649.526,   -1512.489,        0,        0.000!    !END!
178 ! X =    1652.060,   -1512.035,        0,        0.000!    !END!
179 ! X =    1654.594,   -1511.580,        0,        0.000!    !END!
180 ! X =    1657.127,   -1511.125,        0,        0.000!    !END!
181 ! X =    1659.661,   -1510.669,        0,        0.000!    !END!
182 ! X =    1662.194,   -1510.212,        0,        0.000!    !END!
183 ! X =    1664.727,   -1509.754,        0,        0.000!    !END!
184 ! X =    1667.260,   -1509.296,        0,        0.000!    !END!
185 ! X =    1669.793,   -1508.837,        0,        0.000!    !END!
186 ! X =    1672.326,   -1508.377,        0,        0.000!    !END!
187 ! X =    1674.858,   -1507.917,        0,        0.000!    !END!
188 ! X =    1677.391,   -1507.456,        0,        0.000!    !END!
189 ! X =    1679.923,   -1506.994,        0,        0.000!    !END!
190 ! X =    1682.456,   -1506.531,        0,        0.000!    !END!
191 ! X =    1684.988,   -1506.068,        0,        0.000!    !END!
192 ! X =    1687.520,   -1505.604,        0,        0.000!    !END!
193 ! X =    1690.052,   -1505.140,        0,        0.000!    !END!
194 ! X =    1692.584,   -1504.674,        0,        0.000!    !END!
195 ! X =    1695.115,   -1504.208,        0,        0.000!    !END!
196 ! X =    1623.688,   -1514.192,        0,        0.000!    !END!
197 ! X =    1626.222,   -1513.745,        0,        0.000!    !END!
198 ! X =    1628.756,   -1513.298,        1,        0.000!    !END!
199 ! X =    1631.290,   -1512.849,        1,        0.000!    !END!
200 ! X =    1633.824,   -1512.400,        1,        0.000!    !END!
201 ! X =    1636.358,   -1511.950,        1,        0.000!    !END!
202 ! X =    1638.892,   -1511.500,        1,        0.000!    !END!
203 ! X =    1641.425,   -1511.049,        1,        0.000!    !END!
204 ! X =    1643.959,   -1510.597,        1,        0.000!    !END!
205 ! X =    1646.492,   -1510.144,        1,        0.000!    !END!
206 ! X =    1649.025,   -1509.691,        0,        0.000!    !END!
207 ! X =    1651.558,   -1509.237,        0,        0.000!    !END!
208 ! X =    1654.091,   -1508.782,        0,        0.000!    !END!
209 ! X =    1656.624,   -1508.327,        0,        0.000!    !END!
210 ! X =    1659.156,   -1507.871,        1,        0.000!    !END!
211 ! X =    1661.689,   -1507.414,        1,        0.000!    !END!
212 ! X =    1664.221,   -1506.956,        1,        0.000!    !END!
213 ! X =    1666.754,   -1506.498,        0,        0.000!    !END!
214 ! X =    1669.286,   -1506.039,        0,        0.000!    !END!
215 ! X =    1671.818,   -1505.580,        0,        0.000!    !END!
216 ! X =    1674.350,   -1505.120,        0,        0.000!    !END!
217 ! X =    1676.881,   -1504.659,        0,        0.000!    !END!
218 ! X =    1679.413,   -1504.197,        0,        0.000!    !END!
219 ! X =    1681.944,   -1503.735,        0,        0.000!    !END!
220 ! X =    1684.476,   -1503.272,        0,        0.000!    !END!
221 ! X =    1687.007,   -1502.808,        0,        0.000!    !END!
222 ! X =    1689.538,   -1502.343,        0,        0.000!    !END!
223 ! X =    1692.069,   -1501.878,        0,        0.000!    !END!
224 ! X =    1694.600,   -1501.412,        1,        0.000!    !END!
225 ! X =    1697.131,   -1500.946,        0,        0.000!    !END!
226 ! X =    1620.661,   -1511.839,        0,        0.000!    !END!
227 ! X =    1623.195,   -1511.393,        0,        0.000!    !END!
228 ! X =    1625.728,   -1510.946,        0,        0.000!    !END!
229 ! X =    1628.261,   -1510.498,        1,        0.000!    !END!
230 ! X =    1630.795,   -1510.050,        1,        0.000!    !END!
231 ! X =    1633.328,   -1509.601,        1,        0.000!    !END!
232 ! X =    1635.861,   -1509.151,        1,        0.000!    !END!
233 ! X =    1638.394,   -1508.701,        1,        0.000!    !END!
234 ! X =    1640.926,   -1508.250,        1,        0.000!    !END!
235 ! X =    1643.459,   -1507.798,        1,        0.000!    !END!
236 ! X =    1645.992,   -1507.346,        1,        0.000!    !END!
237 ! X =    1648.524,   -1506.892,        1,        0.000!    !END!
238 ! X =    1651.056,   -1506.439,        1,        0.000!    !END!
239 ! X =    1653.588,   -1505.984,        1,        0.000!    !END!
240 ! X =    1656.120,   -1505.529,        1,        0.000!    !END!
241 ! X =    1658.652,   -1505.073,        0,        0.000!    !END!
242 ! X =    1661.184,   -1504.616,        1,        0.000!    !END!
243 ! X =    1663.716,   -1504.159,        1,        0.000!    !END!
244 ! X =    1666.247,   -1503.701,        1,        0.000!    !END!
245 ! X =    1668.778,   -1503.242,        1,        0.000!    !END!
246 ! X =    1671.310,   -1502.783,        1,        0.000!    !END!
247 ! X =    1673.841,   -1502.323,        0,        0.000!    !END!
248 ! X =    1676.372,   -1501.862,        0,        0.000!    !END!
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249	! X =	1678.903,	-1501.400,	0,	0.000!	!END!
250	! X =	1681.433,	-1500.938,	0,	0.000!	!END!
251	! X =	1683.964,	-1500.475,	0,	0.000!	!END!
252	! X =	1686.494,	-1500.012,	0,	0.000!	!END!
253	! X =	1689.025,	-1499.547,	0,	0.000!	!END!
254	! X =	1691.555,	-1499.082,	0,	0.000!	!END!
255	! X =	1694.085,	-1498.617,	1,	0.000!	!END!
256	! X =	1696.615,	-1498.150,	0,	0.000!	!END!
257	! X =	1699.145,	-1497.683,	0,	0.000!	!END!
258	! X =	1620.168,	-1509.039,	0,	0.000!	!END!
259	! X =	1622.701,	-1508.593,	1,	0.000!	!END!
260	! X =	1625.234,	-1508.147,	1,	0.000!	!END!
261	! X =	1627.766,	-1507.699,	1,	0.000!	!END!
262	! X =	1630.299,	-1507.251,	1,	0.000!	!END!
263	! X =	1632.831,	-1506.802,	1,	0.000!	!END!
264	! X =	1635.364,	-1506.353,	1,	0.000!	!END!
265	! X =	1637.896,	-1505.902,	1,	0.000!	!END!
266	! X =	1640.428,	-1505.451,	1,	0.000!	!END!
267	! X =	1642.959,	-1505.000,	1,	0.000!	!END!
268	! X =	1645.491,	-1504.547,	1,	0.000!	!END!
269	! X =	1648.023,	-1504.094,	1,	0.000!	!END!
270	! X =	1650.554,	-1503.641,	1,	0.000!	!END!
271	! X =	1653.086,	-1503.186,	1,	0.000!	!END!
272	! X =	1655.617,	-1502.731,	1,	0.000!	!END!
273	! X =	1658.148,	-1502.275,	1,	0.000!	!END!
274	! X =	1660.679,	-1501.819,	1,	0.000!	!END!
275	! X =	1663.210,	-1501.362,	1,	0.000!	!END!
276	! X =	1665.741,	-1500.904,	1,	0.000!	!END!
277	! X =	1668.271,	-1500.445,	1,	0.000!	!END!
278	! X =	1670.802,	-1499.986,	1,	0.000!	!END!
279	! X =	1673.332,	-1499.526,	1,	0.000!	!END!
280	! X =	1675.862,	-1499.065,	1,	0.000!	!END!
281	! X =	1678.392,	-1498.604,	1,	0.000!	!END!
282	! X =	1680.922,	-1498.142,	0,	0.000!	!END!
283	! X =	1683.452,	-1497.679,	0,	0.000!	!END!
284	! X =	1685.982,	-1497.216,	0,	0.000!	!END!
285	! X =	1688.511,	-1496.751,	1,	0.000!	!END!
286	! X =	1691.041,	-1496.287,	0,	0.000!	!END!
287	! X =	1693.570,	-1495.821,	0,	0.000!	!END!
288	! X =	1617.144,	-1506.685,	0,	0.000!	!END!
289	! X =	1619.676,	-1506.240,	0,	0.000!	!END!
290	! X =	1622.208,	-1505.794,	1,	0.000!	!END!
291	! X =	1624.740,	-1505.347,	1,	0.000!	!END!
292	! X =	1627.272,	-1504.900,	1,	0.000!	!END!
293	! X =	1629.803,	-1504.452,	1,	0.000!	!END!
294	! X =	1632.335,	-1504.003,	1,	0.000!	!END!
295	! X =	1634.866,	-1503.554,	1,	0.000!	!END!
296	! X =	1637.398,	-1503.104,	1,	0.000!	!END!
297	! X =	1639.929,	-1502.653,	1,	0.000!	!END!
298	! X =	1642.460,	-1502.202,	0,	0.000!	!END!
299	! X =	1644.991,	-1501.750,	0,	0.000!	!END!
300	! X =	1647.522,	-1501.297,	1,	0.000!	!END!
301	! X =	1650.052,	-1500.843,	1,	0.000!	!END!
302	! X =	1652.583,	-1500.389,	1,	0.000!	!END!
303	! X =	1655.113,	-1499.934,	1,	0.000!	!END!
304	! X =	1657.644,	-1499.478,	1,	0.000!	!END!
305	! X =	1660.174,	-1499.022,	1,	0.000!	!END!
306	! X =	1662.704,	-1498.565,	1,	0.000!	!END!
307	! X =	1665.234,	-1498.107,	1,	0.000!	!END!
308	! X =	1667.764,	-1497.649,	1,	0.000!	!END!
309	! X =	1670.294,	-1497.189,	1,	0.000!	!END!
310	! X =	1672.823,	-1496.730,	1,	0.000!	!END!
311	! X =	1675.353,	-1496.269,	1,	0.000!	!END!
312	! X =	1677.882,	-1495.808,	1,	0.000!	!END!
313	! X =	1680.411,	-1495.346,	0,	0.000!	!END!
314	! X =	1682.940,	-1494.883,	0,	0.000!	!END!
315	! X =	1685.469,	-1494.420,	1,	0.000!	!END!
316	! X =	1687.998,	-1493.956,	1,	0.000!	!END!
317	! X =	1690.527,	-1493.491,	0,	0.000!	!END!
318	! X =	1693.055,	-1493.026,	0,	0.000!	!END!
319	! X =	1616.652,	-1503.886,	0,	0.000!	!END!
320	! X =	1619.183,	-1503.441,	0,	0.000!	!END!
321	! X =	1621.715,	-1502.995,	1,	0.000!	!END!
322	! X =	1624.246,	-1502.549,	1,	0.000!	!END!
323	! X =	1626.777,	-1502.102,	1,	0.000!	!END!
324	! X =	1629.308,	-1501.654,	1,	0.000!	!END!
325	! X =	1631.838,	-1501.205,	0,	0.000!	!END!
326	! X =	1634.369,	-1500.756,	1,	0.000!	!END!
327	! X =	1636.900,	-1500.306,	1,	0.000!	!END!
328	! X =	1639.430,	-1499.855,	0,	0.000!	!END!
329	! X =	1641.960,	-1499.404,	0,	0.000!	!END!
330	! X =	1644.491,	-1498.952,	0,	0.000!	!END!
331	! X =	1647.021,	-1498.499,	1,	0.000!	!END!
332	! X =	1649.551,	-1498.046,	1,	0.000!	!END!
333	! X =	1652.080,	-1497.592,	1,	0.000!	!END!
334	! X =	1654.610,	-1497.137,	1,	0.000!	!END!
335	! X =	1657.140,	-1496.681,	1,	0.000!	!END!
336	! X =	1659.669,	-1496.225,	1,	0.000!	!END!

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337 ! X =   1662.199,  -1495.768,   1,   0.000!  !END!
338 ! X =   1664.728,  -1495.310,   1,   0.000!  !END!
339 ! X =   1667.257,  -1494.852,   1,   0.000!  !END!
340 ! X =   1669.786,  -1494.393,   1,   0.000!  !END!
341 ! X =   1672.315,  -1493.933,   1,   0.000!  !END!
342 ! X =   1674.843,  -1493.473,   1,   0.000!  !END!
343 ! X =   1677.372,  -1493.012,   1,   0.000!  !END!
344 ! X =   1679.900,  -1492.550,   1,   0.000!  !END!
345 ! X =   1682.428,  -1492.088,   1,   0.000!  !END!
346 ! X =   1684.957,  -1491.624,   1,   0.000!  !END!
347 ! X =   1687.485,  -1491.161,   1,   0.000!  !END!
348 ! X =   1690.013,  -1490.696,   1,   0.000!  !END!
349 ! X =   1692.540,  -1490.231,   1,   0.000!  !END!
350 ! X =   1618.691,  -1500.642,   0,   0.000!  !END!
351 ! X =   1621.221,  -1500.197,   1,   0.000!  !END!
352 ! X =   1623.752,  -1499.750,   1,   0.000!  !END!
353 ! X =   1626.282,  -1499.303,   1,   0.000!  !END!
354 ! X =   1628.812,  -1498.856,   1,   0.000!  !END!
355 ! X =   1631.342,  -1498.407,   0,   0.000!  !END!
356 ! X =   1633.872,  -1497.958,   0,   0.000!  !END!
357 ! X =   1636.402,  -1497.508,   1,   0.000!  !END!
358 ! X =   1638.932,  -1497.058,   1,   0.000!  !END!
359 ! X =   1641.461,  -1496.606,   0,   0.000!  !END!
360 ! X =   1643.990,  -1496.155,   1,   0.000!  !END!
361 ! X =   1646.520,  -1495.702,   1,   0.000!  !END!
362 ! X =   1649.049,  -1495.249,   1,   0.000!  !END!
363 ! X =   1651.578,  -1494.795,   1,   0.000!  !END!
364 ! X =   1654.107,  -1494.340,   1,   0.000!  !END!
365 ! X =   1656.636,  -1493.885,   1,   0.000!  !END!
366 ! X =   1659.164,  -1493.428,   1,   0.000!  !END!
367 ! X =   1661.693,  -1492.972,   1,   0.000!  !END!
368 ! X =   1664.221,  -1492.514,   1,   0.000!  !END!
369 ! X =   1666.750,  -1492.056,   1,   0.000!  !END!
370 ! X =   1669.278,  -1491.597,   1,   0.000!  !END!
371 ! X =   1671.806,  -1491.138,   1,   0.000!  !END!
372 ! X =   1674.334,  -1490.677,   1,   0.000!  !END!
373 ! X =   1676.862,  -1490.216,   1,   0.000!  !END!
374 ! X =   1679.389,  -1489.755,   1,   0.000!  !END!
375 ! X =   1681.917,  -1489.292,   1,   0.000!  !END!
376 ! X =   1684.444,  -1488.829,   1,   0.000!  !END!
377 ! X =   1686.971,  -1488.366,   1,   0.000!  !END!
378 ! X =   1689.499,  -1487.901,   1,   0.000!  !END!
379 ! X =   1692.026,  -1487.436,   1,   0.000!  !END!
380 ! X =   1618.198,  -1497.844,   0,   0.000!  !END!
381 ! X =   1620.728,  -1497.398,   1,   0.000!  !END!
382 ! X =   1623.258,  -1496.952,   1,   0.000!  !END!
383 ! X =   1625.787,  -1496.505,   1,   0.000!  !END!
384 ! X =   1628.317,  -1496.058,   1,   0.000!  !END!
385 ! X =   1630.846,  -1495.609,   1,   0.000!  !END!
386 ! X =   1633.375,  -1495.160,   0,   0.000!  !END!
387 ! X =   1635.904,  -1494.711,   0,   0.000!  !END!
388 ! X =   1638.433,  -1494.260,   0,   0.000!  !END!
389 ! X =   1640.962,  -1493.809,   1,   0.000!  !END!
390 ! X =   1643.490,  -1493.357,   1,   0.000!  !END!
391 ! X =   1646.019,  -1492.905,   1,   0.000!  !END!
392 ! X =   1648.547,  -1492.452,   1,   0.000!  !END!
393 ! X =   1651.076,  -1491.998,   1,   0.000!  !END!
394 ! X =   1653.604,  -1491.543,   1,   0.000!  !END!
395 ! X =   1656.132,  -1491.088,   1,   0.000!  !END!
396 ! X =   1658.660,  -1490.632,   1,   0.000!  !END!
397 ! X =   1661.187,  -1490.176,   1,   0.000!  !END!
398 ! X =   1663.715,  -1489.718,   1,   0.000!  !END!
399 ! X =   1666.243,  -1489.260,   1,   0.000!  !END!
400 ! X =   1668.770,  -1488.801,   1,   0.000!  !END!
401 ! X =   1671.297,  -1488.342,   1,   0.000!  !END!
402 ! X =   1673.824,  -1487.882,   1,   0.000!  !END!
403 ! X =   1676.351,  -1487.421,   1,   0.000!  !END!
404 ! X =   1617.706,  -1495.046,   0,   0.000!  !END!
405 ! X =   1620.235,  -1494.600,   1,   0.000!  !END!
406 ! X =   1622.764,  -1494.154,   1,   0.000!  !END!
407 ! X =   1625.293,  -1493.707,   1,   0.000!  !END!
408 ! X =   1627.821,  -1493.260,   0,   0.000!  !END!
409 ! X =   1630.350,  -1492.812,   1,   0.000!  !END!
410 ! X =   1632.878,  -1492.363,   0,   0.000!  !END!
411 ! X =   1635.406,  -1491.913,   1,   0.000!  !END!
412 ! X =   1637.934,  -1491.463,   1,   0.000!  !END!
413 ! X =   1640.462,  -1491.012,   1,   0.000!  !END!
414 ! X =   1642.990,  -1490.561,   1,   0.000!  !END!
415 ! X =   1645.518,  -1490.108,   1,   0.000!  !END!
416 ! X =   1648.046,  -1489.655,   1,   0.000!  !END!
417 ! X =   1650.573,  -1489.202,   1,   0.000!  !END!
418 ! X =   1653.101,  -1488.747,   1,   0.000!  !END!
419 ! X =   1655.628,  -1488.292,   1,   0.000!  !END!
420 ! X =   1658.155,  -1487.836,   1,   0.000!  !END!
421 ! X =   1660.682,  -1487.380,   1,   0.000!  !END!
422 ! X =   1663.209,  -1486.922,   1,   0.000!  !END!
423 ! X =   1665.736,  -1486.465,   1,   0.000!  !END!
424 ! X =   1668.262,  -1486.006,   1,   0.000!  !END!
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425 ! X =   1670.789,  -1485.547,    1,    0.000!   !END!
426 ! X =   1673.315,  -1485.087,    1,    0.000!   !END!
427 ! X =   1675.841,  -1484.626,    1,    0.000!   !END!
428 ! X =   1617.214,  -1492.248,    0,    0.000!   !END!
429 ! X =   1619.742,  -1491.803,    0,    0.000!   !END!
430 ! X =   1622.270,  -1491.357,    0,    0.000!   !END!
431 ! X =   1624.798,  -1490.910,    1,    0.000!   !END!
432 ! X =   1627.326,  -1490.463,    1,    0.000!   !END!
433 ! X =   1629.853,  -1490.015,    1,    0.000!   !END!
434 ! X =   1632.381,  -1489.566,    1,    0.000!   !END!
435 ! X =   1634.909,  -1489.116,    1,    0.000!   !END!
436 ! X =   1637.436,  -1488.666,    1,    0.000!   !END!
437 ! X =   1639.963,  -1488.216,    1,    0.000!   !END!
438 ! X =   1642.490,  -1487.764,    1,    0.000!   !END!
439 ! X =   1645.017,  -1487.312,    1,    0.000!   !END!
440 ! X =   1647.544,  -1486.859,    1,    0.000!   !END!
441 ! X =   1650.071,  -1486.405,    1,    0.000!   !END!
442 ! X =   1652.597,  -1485.951,    1,    0.000!   !END!
443 ! X =   1655.124,  -1485.496,    1,    0.000!   !END!
444 ! X =   1657.650,  -1485.040,    1,    0.000!   !END!
445 ! X =   1660.177,  -1484.584,    1,    0.000!   !END!
446 ! X =   1662.703,  -1484.127,    1,    0.000!   !END!
447 ! X =   1665.229,  -1483.669,    1,    0.000!   !END!
448 ! X =   1667.755,  -1483.211,    1,    0.000!   !END!
449 ! X =   1670.280,  -1482.752,    1,    0.000!   !END!
450 ! X =   1672.806,  -1482.292,    1,    0.000!   !END!
451 ! X =   1675.331,  -1481.831,    1,    0.000!   !END!
452 ! X =   1616.721,  -1489.450,    0,    0.000!   !END!
453 ! X =   1619.249,  -1489.005,    0,    0.000!   !END!
454 ! X =   1621.776,  -1488.559,    0,    0.000!   !END!
455 ! X =   1624.303,  -1488.113,    1,    0.000!   !END!
456 ! X =   1626.830,  -1487.666,    1,    0.000!   !END!
457 ! X =   1629.357,  -1487.218,    1,    0.000!   !END!
458 ! X =   1631.884,  -1486.769,    1,    0.000!   !END!
459 ! X =   1634.411,  -1486.320,    1,    0.000!   !END!
460 ! X =   1636.937,  -1485.870,    1,    0.000!   !END!
461 ! X =   1639.464,  -1485.419,    1,    0.000!   !END!
462 ! X =   1641.990,  -1484.968,    1,    0.000!   !END!
463 ! X =   1644.516,  -1484.516,    1,    0.000!   !END!
464 ! X =   1647.043,  -1484.063,    1,    0.000!   !END!
465 ! X =   1649.569,  -1483.610,    1,    0.000!   !END!
466 ! X =   1652.094,  -1483.155,    1,    0.000!   !END!
467 ! X =   1654.620,  -1482.701,    1,    0.000!   !END!
468 ! X =   1657.146,  -1482.245,    1,    0.000!   !END!
469 ! X =   1659.671,  -1481.789,    1,    0.000!   !END!
470 ! X =   1662.197,  -1481.332,    1,    0.000!   !END!
471 ! X =   1664.722,  -1480.874,    1,    0.000!   !END!
472 ! X =   1667.247,  -1480.416,    1,    0.000!   !END!
473 ! X =   1669.772,  -1479.957,    1,    0.000!   !END!
474 ! X =   1672.297,  -1479.497,    1,    0.000!   !END!
475 ! X =   1674.821,  -1479.037,    1,    0.000!   !END!
476 ! X =   1616.229,  -1486.653,    0,    0.000!   !END!
477 ! X =   1618.756,  -1486.208,    0,    0.000!   !END!
478 ! X =   1621.282,  -1485.762,    1,    0.000!   !END!
479 ! X =   1623.809,  -1485.316,    1,    0.000!   !END!
480 ! X =   1626.335,  -1484.869,    1,    0.000!   !END!
481 ! X =   1628.861,  -1484.421,    1,    0.000!   !END!
482 ! X =   1631.387,  -1483.973,    1,    0.000!   !END!
483 ! X =   1633.913,  -1483.523,    1,    0.000!   !END!
484 ! X =   1636.439,  -1483.074,    1,    0.000!   !END!
485 ! X =   1638.965,  -1482.623,    1,    0.000!   !END!
486 ! X =   1641.490,  -1482.172,    1,    0.000!   !END!
487 ! X =   1644.016,  -1481.720,    1,    0.000!   !END!
488 ! X =   1646.541,  -1481.267,    1,    0.000!   !END!
489 ! X =   1649.066,  -1480.814,    1,    0.000!   !END!
490 ! X =   1651.591,  -1480.360,    1,    0.000!   !END!
491 ! X =   1654.116,  -1479.905,    1,    0.000!   !END!
492 ! X =   1656.641,  -1479.450,    1,    0.000!   !END!
493 ! X =   1659.166,  -1478.994,    1,    0.000!   !END!
494 ! X =   1661.690,  -1478.537,    1,    0.000!   !END!
495 ! X =   1664.215,  -1478.080,    1,    0.000!   !END!
496 ! X =   1666.739,  -1477.621,    1,    0.000!   !END!
497 ! X =   1669.263,  -1477.162,    1,    0.000!   !END!
498 ! X =   1671.787,  -1476.703,    1,    0.000!   !END!
499 ! X =   1674.311,  -1476.243,    1,    0.000!   !END!
500 ! X =   1615.737,  -1483.856,    0,    0.000!   !END!
501 ! X =   1618.263,  -1483.411,    1,    0.000!   !END!
502 ! X =   1620.789,  -1482.965,    1,    0.000!   !END!
503 ! X =   1623.314,  -1482.519,    1,    0.000!   !END!
504 ! X =   1625.840,  -1482.072,    1,    0.000!   !END!
505 ! X =   1628.365,  -1481.625,    1,    0.000!   !END!
506 ! X =   1630.890,  -1481.176,    1,    0.000!   !END!
507 ! X =   1633.416,  -1480.727,    1,    0.000!   !END!
508 ! X =   1635.941,  -1480.278,    1,    0.000!   !END!
509 ! X =   1638.466,  -1479.827,    1,    0.000!   !END!
510 ! X =   1640.990,  -1479.376,    1,    0.000!   !END!
511 ! X =   1643.515,  -1478.924,    1,    0.000!   !END!
512 ! X =   1646.040,  -1478.472,    1,    0.000!   !END!
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513 ! X =    1648.564,  -1478.019,     1,     0.000!   !END!
514 ! X =    1651.088,  -1477.565,     1,     0.000!   !END!
515 ! X =    1653.613,  -1477.110,     1,     0.000!   !END!
516 ! X =    1656.137,  -1476.655,     1,     0.000!   !END!
517 ! X =    1658.661,  -1476.199,     1,     0.000!   !END!
518 ! X =    1661.184,  -1475.742,     1,     0.000!   !END!
519 ! X =    1663.708,  -1475.285,     1,     0.000!   !END!
520 ! X =    1666.232,  -1474.827,     1,     0.000!   !END!
521 ! X =    1668.755,  -1474.368,     1,     0.000!   !END!
522 ! X =    1671.278,  -1473.909,     1,     0.000!   !END!
523 ! X =    1673.802,  -1473.449,     1,     0.000!   !END!
524 ! X =    1612.719,  -1481.503,     0,     0.000!   !END!
525 ! X =    1615.245,  -1481.059,     0,     0.000!   !END!
526 ! X =    1617.770,  -1480.614,     1,     0.000!   !END!
527 ! X =    1620.295,  -1480.169,     1,     0.000!   !END!
528 ! X =    1622.820,  -1479.723,     1,     0.000!   !END!
529 ! X =    1625.345,  -1479.276,     1,     0.000!   !END!
530 ! X =    1627.869,  -1478.828,     1,     0.000!   !END!
531 ! X =    1630.394,  -1478.380,     1,     0.000!   !END!
532 ! X =    1632.918,  -1477.931,     1,     0.000!   !END!
533 ! X =    1635.442,  -1477.482,     1,     0.000!   !END!
534 ! X =    1637.967,  -1477.032,     1,     0.000!   !END!
535 ! X =    1640.491,  -1476.581,     1,     0.000!   !END!
536 ! X =    1643.015,  -1476.129,     1,     0.000!   !END!
537 ! X =    1645.538,  -1475.677,     1,     0.000!   !END!
538 ! X =    1648.062,  -1475.224,     1,     0.000!   !END!
539 ! X =    1650.586,  -1474.770,     1,     0.000!   !END!
540 ! X =    1653.109,  -1474.315,     1,     0.000!   !END!
541 ! X =    1655.632,  -1473.860,     1,     0.000!   !END!
542 ! X =    1658.155,  -1473.405,     1,     0.000!   !END!
543 ! X =    1660.678,  -1472.948,     1,     0.000!   !END!
544 ! X =    1663.201,  -1472.491,     1,     0.000!   !END!
545 ! X =    1665.724,  -1472.033,     1,     0.000!   !END!
546 ! X =    1668.247,  -1471.574,     1,     0.000!   !END!
547 ! X =    1670.769,  -1471.115,     1,     0.000!   !END!
548 ! X =    1673.292,  -1470.655,     1,     0.000!   !END!
549 ! X =    1612.228,  -1478.706,     0,     0.000!   !END!
550 ! X =    1614.753,  -1478.262,     1,     0.000!   !END!
551 ! X =    1617.277,  -1477.818,     1,     0.000!   !END!
552 ! X =    1619.801,  -1477.372,     1,     0.000!   !END!
553 ! X =    1622.325,  -1476.927,     1,     0.000!   !END!
554 ! X =    1624.849,  -1476.480,     1,     0.000!   !END!
555 ! X =    1627.373,  -1476.033,     1,     0.000!   !END!
556 ! X =    1629.897,  -1475.585,     1,     0.000!   !END!
557 ! X =    1632.421,  -1475.136,     1,     0.000!   !END!
558 ! X =    1634.944,  -1474.686,     1,     0.000!   !END!
559 ! X =    1637.468,  -1474.236,     1,     0.000!   !END!
560 ! X =    1639.991,  -1473.785,     1,     0.000!   !END!
561 ! X =    1642.514,  -1473.334,     1,     0.000!   !END!
562 ! X =    1645.037,  -1472.882,     1,     0.000!   !END!
563 ! X =    1647.560,  -1472.429,     1,     0.000!   !END!
564 ! X =    1650.083,  -1471.975,     1,     0.000!   !END!
565 ! X =    1652.605,  -1471.521,     1,     0.000!   !END!
566 ! X =    1655.128,  -1471.066,     1,     0.000!   !END!
567 ! X =    1657.650,  -1470.610,     1,     0.000!   !END!
568 ! X =    1660.172,  -1470.154,     1,     0.000!   !END!
569 ! X =    1662.695,  -1469.697,     1,     0.000!   !END!
570 ! X =    1665.217,  -1469.239,     1,     0.000!   !END!
571 ! X =    1667.739,  -1468.781,     1,     0.000!   !END!
572 ! X =    1670.260,  -1468.322,     1,     0.000!   !END!
573 ! X =    1672.782,  -1467.862,     1,     0.000!   !END!
574 ! X =    1609.213,  -1476.353,     0,     0.000!   !END!
575 ! X =    1611.737,  -1475.910,     1,     0.000!   !END!
576 ! X =    1614.261,  -1475.466,     1,     0.000!   !END!
577 ! X =    1616.784,  -1475.022,     1,     0.000!   !END!
578 ! X =    1619.308,  -1474.576,     1,     0.000!   !END!
579 ! X =    1621.831,  -1474.131,     1,     0.000!   !END!
580 ! X =    1624.354,  -1473.684,     1,     0.000!   !END!
581 ! X =    1626.877,  -1473.237,     1,     0.000!   !END!
582 ! X =    1629.400,  -1472.789,     1,     0.000!   !END!
583 ! X =    1631.923,  -1472.340,     1,     0.000!   !END!
584 ! X =    1634.446,  -1471.891,     1,     0.000!   !END!
585 ! X =    1636.969,  -1471.441,     1,     0.000!   !END!
586 ! X =    1639.491,  -1470.991,     1,     0.000!   !END!
587 ! X =    1642.013,  -1470.539,     1,     0.000!   !END!
588 ! X =    1644.536,  -1470.087,     1,     0.000!   !END!
589 ! X =    1647.058,  -1469.634,     1,     0.000!   !END!
590 ! X =    1649.580,  -1469.181,     1,     0.000!   !END!
591 ! X =    1652.102,  -1468.727,     1,     0.000!   !END!
592 ! X =    1654.623,  -1468.272,     1,     0.000!   !END!
593 ! X =    1657.145,  -1467.816,     1,     0.000!   !END!
594 ! X =    1659.667,  -1467.360,     1,     0.000!   !END!
595 ! X =    1662.188,  -1466.903,     1,     0.000!   !END!
596 ! X =    1664.709,  -1466.446,     1,     0.000!   !END!
597 ! X =    1667.230,  -1465.987,     1,     0.000!   !END!
598 ! X =    1669.751,  -1465.528,     1,     0.000!   !END!
599 ! X =    1672.272,  -1465.069,     1,     0.000!   !END!
600 ! X =    1674.793,  -1464.608,     1,     0.000!   !END!
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601 ! X =     1608.723,  -1473.557,        0,        0.000!    !END!
602 ! X =     1611.246,  -1473.114,        1,        0.000!    !END!
603 ! X =     1613.769,  -1472.670,        1,        0.000!    !END!
604 ! X =     1616.291,  -1472.226,        1,        0.000!    !END!
605 ! X =     1618.814,  -1471.781,        1,        0.000!    !END!
606 ! X =     1621.337,  -1471.335,        1,        0.000!    !END!
607 ! X =     1623.859,  -1470.889,        1,        0.000!    !END!
608 ! X =     1626.382,  -1470.442,        1,        0.000!    !END!
609 ! X =     1628.904,  -1469.994,        1,        0.000!    !END!
610 ! X =     1631.426,  -1469.545,        1,        0.000!    !END!
611 ! X =     1633.948,  -1469.096,        1,        0.000!    !END!
612 ! X =     1636.470,  -1468.646,        1,        0.000!    !END!
613 ! X =     1638.991,  -1468.196,        1,        0.000!    !END!
614 ! X =     1641.513,  -1467.745,        1,        0.000!    !END!
615 ! X =     1644.034,  -1467.293,        1,        0.000!    !END!
616 ! X =     1646.556,  -1466.840,        1,        0.000!    !END!
617 ! X =     1649.077,  -1466.387,        1,        0.000!    !END!
618 ! X =     1651.598,  -1465.933,        1,        0.000!    !END!
619 ! X =     1654.119,  -1465.478,        1,        0.000!    !END!
620 ! X =     1656.640,  -1465.023,        1,        0.000!    !END!
621 ! X =     1659.161,  -1464.567,        1,        0.000!    !END!
622 ! X =     1661.681,  -1464.110,        1,        0.000!    !END!
623 ! X =     1664.202,  -1463.652,        1,        0.000!    !END!
624 ! X =     1666.722,  -1463.194,        1,        0.000!    !END!
625 ! X =     1669.242,  -1462.735,        1,        0.000!    !END!
626 ! X =     1671.763,  -1462.276,        1,        0.000!    !END!
627 ! X =     1674.282,  -1461.816,        1,        0.000!    !END!
628 ! X =     1605.710,  -1471.203,        0,        0.000!    !END!
629 ! X =     1608.232,  -1470.761,        0,        0.000!    !END!
630 ! X =     1610.754,  -1470.318,        0,        0.000!    !END!
631 ! X =     1613.277,  -1469.874,        1,        0.000!    !END!
632 ! X =     1615.799,  -1469.430,        1,        0.000!    !END!
633 ! X =     1618.321,  -1468.985,        1,        0.000!    !END!
634 ! X =     1620.842,  -1468.540,        1,        0.000!    !END!
635 ! X =     1623.364,  -1468.093,        0,        0.000!    !END!
636 ! X =     1625.886,  -1467.647,        1,        0.000!    !END!
637 ! X =     1628.407,  -1467.199,        1,        0.000!    !END!
638 ! X =     1630.928,  -1466.751,        1,        0.000!    !END!
639 ! X =     1633.450,  -1466.302,        1,        0.000!    !END!
640 ! X =     1635.971,  -1465.852,        1,        0.000!    !END!
641 ! X =     1638.492,  -1465.402,        1,        0.000!    !END!
642 ! X =     1641.013,  -1464.950,        1,        0.000!    !END!
643 ! X =     1643.533,  -1464.499,        1,        0.000!    !END!
644 ! X =     1646.054,  -1464.046,        1,        0.000!    !END!
645 ! X =     1648.574,  -1463.593,        1,        0.000!    !END!
646 ! X =     1651.095,  -1463.139,        1,        0.000!    !END!
647 ! X =     1653.615,  -1462.685,        1,        0.000!    !END!
648 ! X =     1656.135,  -1462.229,        1,        0.000!    !END!
649 ! X =     1658.655,  -1461.773,        1,        0.000!    !END!
650 ! X =     1661.175,  -1461.317,        1,        0.000!    !END!
651 ! X =     1663.695,  -1460.859,        1,        0.000!    !END!
652 ! X =     1666.214,  -1460.401,        1,        0.000!    !END!
653 ! X =     1668.734,  -1459.943,        1,        0.000!    !END!
654 ! X =     1671.253,  -1459.483,        1,        0.000!    !END!
655 ! X =     1673.772,  -1459.023,        1,        0.000!    !END!
656 ! X =     1602.698,  -1468.848,        0,        0.000!    !END!
657 ! X =     1605.220,  -1468.407,        0,        0.000!    !END!
658 ! X =     1607.742,  -1467.965,        1,        0.000!    !END!
659 ! X =     1610.263,  -1467.522,        1,        0.000!    !END!
660 ! X =     1612.785,  -1467.079,        1,        0.000!    !END!
661 ! X =     1615.306,  -1466.635,        1,        0.000!    !END!
662 ! X =     1617.827,  -1466.190,        0,        0.000!    !END!
663 ! X =     1620.348,  -1465.745,        1,        0.000!    !END!
664 ! X =     1622.869,  -1465.299,        1,        0.000!    !END!
665 ! X =     1625.390,  -1464.852,        1,        0.000!    !END!
666 ! X =     1627.911,  -1464.404,        1,        0.000!    !END!
667 ! X =     1630.431,  -1463.956,        1,        0.000!    !END!
668 ! X =     1632.952,  -1463.507,        1,        0.000!    !END!
669 ! X =     1635.472,  -1463.058,        1,        0.000!    !END!
670 ! X =     1637.992,  -1462.607,        1,        0.000!    !END!
671 ! X =     1640.512,  -1462.156,        1,        0.000!    !END!
672 ! X =     1643.032,  -1461.705,        1,        0.000!    !END!
673 ! X =     1645.552,  -1461.252,        1,        0.000!    !END!
674 ! X =     1648.072,  -1460.799,        1,        0.000!    !END!
675 ! X =     1650.591,  -1460.346,        1,        0.000!    !END!
676 ! X =     1653.111,  -1459.891,        1,        0.000!    !END!
677 ! X =     1655.630,  -1459.436,        1,        0.000!    !END!
678 ! X =     1658.149,  -1458.980,        1,        0.000!    !END!
679 ! X =     1660.668,  -1458.524,        1,        0.000!    !END!
680 ! X =     1663.187,  -1458.067,        1,        0.000!    !END!
681 ! X =     1665.706,  -1457.609,        1,        0.000!    !END!
682 ! X =     1668.225,  -1457.150,        1,        0.000!    !END!
683 ! X =     1670.743,  -1456.691,        1,        0.000!    !END!
684 ! X =     1673.262,  -1456.231,        1,        0.000!    !END!
685 ! X =     1602.209,  -1466.052,        0,        0.000!    !END!
686 ! X =     1604.731,  -1465.611,        0,        0.000!    !END!
687 ! X =     1607.251,  -1465.169,        1,        0.000!    !END!
688 ! X =     1609.772,  -1464.727,        1,        0.000!    !END!
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689 ! X =    1612.293,  -1464.284,      1,      0.000!   !END!
690 ! X =    1614.813,  -1463.840,      1,      0.000!   !END!
691 ! X =    1617.334,  -1463.395,      1,      0.000!   !END!
692 ! X =    1619.854,  -1462.950,      1,      0.000!   !END!
693 ! X =    1622.374,  -1462.504,      1,      0.000!   !END!
694 ! X =    1624.894,  -1462.057,      1,      0.000!   !END!
695 ! X =    1627.414,  -1461.610,      1,      0.000!   !END!
696 ! X =    1629.934,  -1461.162,      1,      0.000!   !END!
697 ! X =    1632.454,  -1460.713,      1,      0.000!   !END!
698 ! X =    1634.973,  -1460.264,      1,      0.000!   !END!
699 ! X =    1637.493,  -1459.814,      1,      0.000!   !END!
700 ! X =    1640.012,  -1459.363,      1,      0.000!   !END!
701 ! X =    1642.531,  -1458.911,      1,      0.000!   !END!
702 ! X =    1645.050,  -1458.459,      1,      0.000!   !END!
703 ! X =    1647.569,  -1458.006,      1,      0.000!   !END!
704 ! X =    1650.088,  -1457.553,      1,      0.000!   !END!
705 ! X =    1652.607,  -1457.098,      1,      0.000!   !END!
706 ! X =    1655.125,  -1456.643,      1,      0.000!   !END!
707 ! X =    1657.644,  -1456.188,      1,      0.000!   !END!
708 ! X =    1660.162,  -1455.731,      1,      0.000!   !END!
709 ! X =    1662.680,  -1455.274,      1,      0.000!   !END!
710 ! X =    1665.198,  -1454.816,      1,      0.000!   !END!
711 ! X =    1667.716,  -1454.358,      1,      0.000!   !END!
712 ! X =    1670.234,  -1453.899,      1,      0.000!   !END!
713 ! X =    1672.751,  -1453.439,      1,      0.000!   !END!
714 ! X =    1675.269,  -1452.979,      1,      0.000!   !END!
715 ! X =    1599.200,  -1463.697,      0,      0.000!   !END!
716 ! X =    1601.721,  -1463.257,      0,      0.000!   !END!
717 ! X =    1604.241,  -1462.816,      0,      0.000!   !END!
718 ! X =    1606.761,  -1462.374,      1,      0.000!   !END!
719 ! X =    1609.281,  -1461.932,      1,      0.000!   !END!
720 ! X =    1611.801,  -1461.489,      1,      0.000!   !END!
721 ! X =    1614.321,  -1461.045,      1,      0.000!   !END!
722 ! X =    1616.840,  -1460.601,      1,      0.000!   !END!
723 ! X =    1619.360,  -1460.155,      1,      0.000!   !END!
724 ! X =    1621.879,  -1459.710,      1,      0.000!   !END!
725 ! X =    1644.548,  -1455.666,      1,      0.000!   !END!
726 ! X =    1647.066,  -1455.213,      1,      0.000!   !END!
727 ! X =    1649.585,  -1454.760,      1,      0.000!   !END!
728 ! X =    1652.102,  -1454.306,      1,      0.000!   !END!
729 ! X =    1654.620,  -1453.851,      1,      0.000!   !END!
730 ! X =    1657.138,  -1453.395,      1,      0.000!   !END!
731 ! X =    1659.655,  -1452.939,      1,      0.000!   !END!
732 ! X =    1662.173,  -1452.482,      1,      0.000!   !END!
733 ! X =    1664.690,  -1452.024,      1,      0.000!   !END!
734 ! X =    1667.207,  -1451.566,      1,      0.000!   !END!
735 ! X =    1669.724,  -1451.107,      1,      0.000!   !END!
736 ! X =    1672.241,  -1450.647,      1,      0.000!   !END!
737 ! X =    1596.193,  -1461.341,      0,      0.000!   !END!
738 ! X =    1598.712,  -1460.902,      0,      0.000!   !END!
739 ! X =    1601.232,  -1460.462,      1,      0.000!   !END!
740 ! X =    1603.752,  -1460.021,      1,      0.000!   !END!
741 ! X =    1606.271,  -1459.579,      1,      0.000!   !END!
742 ! X =    1608.790,  -1459.137,      1,      0.000!   !END!
743 ! X =    1611.309,  -1458.694,      1,      0.000!   !END!
744 ! X =    1613.828,  -1458.250,      1,      0.000!   !END!
745 ! X =    1616.347,  -1457.806,      1,      0.000!   !END!
746 ! X =    1618.866,  -1457.361,      1,      0.000!   !END!
747 ! X =    1621.384,  -1456.915,      1,      0.000!   !END!
748 ! X =    1644.047,  -1452.873,      1,      0.000!   !END!
749 ! X =    1646.564,  -1452.420,      1,      0.000!   !END!
750 ! X =    1649.081,  -1451.967,      1,      0.000!   !END!
751 ! X =    1651.598,  -1451.513,      1,      0.000!   !END!
752 ! X =    1654.115,  -1451.058,      1,      0.000!   !END!
753 ! X =    1656.632,  -1450.603,      1,      0.000!   !END!
754 ! X =    1659.149,  -1450.147,      1,      0.000!   !END!
755 ! X =    1661.666,  -1449.690,      1,      0.000!   !END!
756 ! X =    1664.182,  -1449.233,      1,      0.000!   !END!
757 ! X =    1666.699,  -1448.775,      1,      0.000!   !END!
758 ! X =    1669.215,  -1448.316,      1,      0.000!   !END!
759 ! X =    1671.731,  -1447.856,      1,      0.000!   !END!
760 ! X =    1674.247,  -1447.396,      1,      0.000!   !END!
761 ! X =    1676.763,  -1446.935,      1,      0.000!   !END!
762 ! X =    1593.187,  -1458.985,      0,      0.000!   !END!
763 ! X =    1595.706,  -1458.546,      0,      0.000!   !END!
764 ! X =    1598.225,  -1458.107,      0,      0.000!   !END!
765 ! X =    1600.743,  -1457.667,      1,      0.000!   !END!
766 ! X =    1603.262,  -1457.226,      1,      0.000!   !END!
767 ! X =    1605.781,  -1456.785,      1,      0.000!   !END!
768 ! X =    1608.299,  -1456.342,      1,      0.000!   !END!
769 ! X =    1610.818,  -1455.900,      1,      0.000!   !END!
770 ! X =    1613.336,  -1455.456,      1,      0.000!   !END!
771 ! X =    1615.854,  -1455.012,      1,      0.000!   !END!
772 ! X =    1618.372,  -1454.567,      1,      0.000!   !END!
773 ! X =    1643.545,  -1450.080,      1,      0.000!   !END!
774 ! X =    1646.061,  -1449.628,      1,      0.000!   !END!
775 ! X =    1648.578,  -1449.175,      1,      0.000!   !END!
776 ! X =    1651.094,  -1448.721,      1,      0.000!   !END!
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777	!	X =	1653.611,	-1448.266,	1,	0.000!	!END!
778	!	X =	1656.127,	-1447.811,	1,	0.000!	!END!
779	!	X =	1658.643,	-1447.355,	1,	0.000!	!END!
780	!	X =	1661.159,	-1446.898,	1,	0.000!	!END!
781	!	X =	1663.674,	-1446.441,	1,	0.000!	!END!
782	!	X =	1666.190,	-1445.983,	1,	0.000!	!END!
783	!	X =	1668.705,	-1445.524,	1,	0.000!	!END!
784	!	X =	1671.221,	-1445.065,	1,	0.000!	!END!
785	!	X =	1673.736,	-1444.605,	1,	0.000!	!END!
786	!	X =	1676.251,	-1444.144,	1,	0.000!	!END!
787	!	X =	1590.182,	-1456.627,	0,	0.000!	!END!
788	!	X =	1592.700,	-1456.190,	0,	0.000!	!END!
789	!	X =	1595.219,	-1455.751,	0,	0.000!	!END!
790	!	X =	1597.737,	-1455.312,	1,	0.000!	!END!
791	!	X =	1600.255,	-1454.872,	1,	0.000!	!END!
792	!	X =	1602.773,	-1454.431,	1,	0.000!	!END!
793	!	X =	1605.291,	-1453.990,	1,	0.000!	!END!
794	!	X =	1607.808,	-1453.548,	1,	0.000!	!END!
795	!	X =	1610.326,	-1453.106,	1,	0.000!	!END!
796	!	X =	1612.843,	-1452.662,	1,	0.000!	!END!
797	!	X =	1615.361,	-1452.218,	1,	0.000!	!END!
798	!	X =	1643.043,	-1447.288,	1,	0.000!	!END!
799	!	X =	1645.559,	-1446.836,	1,	0.000!	!END!
800	!	X =	1648.075,	-1446.383,	1,	0.000!	!END!
801	!	X =	1650.590,	-1445.929,	1,	0.000!	!END!
802	!	X =	1653.106,	-1445.475,	1,	0.000!	!END!
803	!	X =	1655.621,	-1445.019,	1,	0.000!	!END!
804	!	X =	1658.136,	-1444.564,	1,	0.000!	!END!
805	!	X =	1660.652,	-1444.107,	1,	0.000!	!END!
806	!	X =	1663.167,	-1443.650,	1,	0.000!	!END!
807	!	X =	1665.681,	-1443.192,	1,	0.000!	!END!
808	!	X =	1668.196,	-1442.733,	1,	0.000!	!END!
809	!	X =	1670.711,	-1442.274,	1,	0.000!	!END!
810	!	X =	1673.225,	-1441.814,	1,	0.000!	!END!
811	!	X =	1675.740,	-1441.354,	1,	0.000!	!END!
812	!	X =	1587.179,	-1454.269,	0,	0.000!	!END!
813	!	X =	1589.696,	-1453.832,	0,	0.000!	!END!
814	!	X =	1592.214,	-1453.395,	1,	0.000!	!END!
815	!	X =	1594.732,	-1452.956,	1,	0.000!	!END!
816	!	X =	1597.249,	-1452.517,	1,	0.000!	!END!
817	!	X =	1599.766,	-1452.078,	1,	0.000!	!END!
818	!	X =	1602.283,	-1451.637,	1,	0.000!	!END!
819	!	X =	1604.800,	-1451.196,	1,	0.000!	!END!
820	!	X =	1607.317,	-1450.754,	1,	0.000!	!END!
821	!	X =	1609.834,	-1450.312,	1,	0.000!	!END!
822	!	X =	1612.351,	-1449.868,	1,	0.000!	!END!
823	!	X =	1614.867,	-1449.425,	1,	0.000!	!END!
824	!	X =	1642.542,	-1444.496,	1,	0.000!	!END!
825	!	X =	1645.057,	-1444.044,	1,	0.000!	!END!
826	!	X =	1647.572,	-1443.591,	1,	0.000!	!END!
827	!	X =	1650.086,	-1443.137,	1,	0.000!	!END!
828	!	X =	1652.601,	-1442.683,	1,	0.000!	!END!
829	!	X =	1655.116,	-1442.228,	1,	0.000!	!END!
830	!	X =	1657.630,	-1441.772,	1,	0.000!	!END!
831	!	X =	1660.145,	-1441.316,	1,	0.000!	!END!
832	!	X =	1662.659,	-1440.859,	1,	0.000!	!END!
833	!	X =	1665.173,	-1440.401,	1,	0.000!	!END!
834	!	X =	1667.687,	-1439.943,	1,	0.000!	!END!
835	!	X =	1670.201,	-1439.484,	1,	0.000!	!END!
836	!	X =	1672.714,	-1439.024,	1,	0.000!	!END!
837	!	X =	1675.228,	-1438.563,	1,	0.000!	!END!
838	!	X =	1584.177,	-1451.911,	0,	0.000!	!END!
839	!	X =	1586.694,	-1451.475,	0,	0.000!	!END!
840	!	X =	1589.211,	-1451.038,	0,	0.000!	!END!
841	!	X =	1591.728,	-1450.600,	0,	0.000!	!END!
842	!	X =	1594.245,	-1450.162,	1,	0.000!	!END!
843	!	X =	1596.761,	-1449.723,	1,	0.000!	!END!
844	!	X =	1599.278,	-1449.283,	1,	0.000!	!END!
845	!	X =	1601.794,	-1448.843,	1,	0.000!	!END!
846	!	X =	1604.310,	-1448.402,	1,	0.000!	!END!
847	!	X =	1606.827,	-1447.960,	1,	0.000!	!END!
848	!	X =	1609.343,	-1447.518,	1,	0.000!	!END!
849	!	X =	1642.040,	-1441.704,	1,	0.000!	!END!
850	!	X =	1644.554,	-1441.252,	1,	0.000!	!END!
851	!	X =	1647.069,	-1440.799,	1,	0.000!	!END!
852	!	X =	1649.583,	-1440.346,	1,	0.000!	!END!
853	!	X =	1652.097,	-1439.892,	1,	0.000!	!END!
854	!	X =	1654.610,	-1439.437,	1,	0.000!	!END!
855	!	X =	1657.124,	-1438.981,	1,	0.000!	!END!
856	!	X =	1659.638,	-1438.525,	1,	0.000!	!END!
857	!	X =	1662.151,	-1438.068,	1,	0.000!	!END!
858	!	X =	1664.664,	-1437.611,	1,	0.000!	!END!
859	!	X =	1667.178,	-1437.152,	1,	0.000!	!END!
860	!	X =	1669.691,	-1436.693,	1,	0.000!	!END!
861	!	X =	1672.204,	-1436.234,	1,	0.000!	!END!
862	!	X =	1674.716,	-1435.773,	1,	0.000!	!END!
863	!	X =	1581.176,	-1449.551,	0,	0.000!	!END!
864	!	X =	1583.693,	-1449.116,	0,	0.000!	!END!

```
865 ! X =     1586.209,  -1448.680,        0,        0.000!    !END!
866 ! X =     1588.726,  -1448.243,        0,        0.000!    !END!
867 ! X =     1591.242,  -1447.806,        1,        0.000!    !END!
868 ! X =     1593.758,  -1447.368,        1,        0.000!    !END!
869 ! X =     1596.274,  -1446.929,        1,        0.000!    !END!
870 ! X =     1598.789,  -1446.490,        1,        0.000!    !END!
871 ! X =     1601.305,  -1446.049,        1,        0.000!    !END!
872 ! X =     1603.820,  -1445.609,        1,        0.000!    !END!
873 ! X =     1575.662,  -1447.625,        0,        0.000!    !END!
874 ! X =     1578.178,  -1447.191,        0,        0.000!    !END!
875 ! X =     1580.693,  -1446.757,        0,        0.000!    !END!
876 ! X =     1583.209,  -1446.322,        0,        0.000!    !END!
877 ! X =     1585.725,  -1445.886,        1,        0.000!    !END!
878 ! X =     1588.240,  -1445.449,        0,        0.000!    !END!
879 ! X =     1590.756,  -1445.012,        0,        0.000!    !END!
880 ! X =     1593.271,  -1444.574,        1,        0.000!    !END!
881 ! X =     1595.786,  -1444.135,        1,        0.000!    !END!
882 ! X =     1598.301,  -1443.696,        1,        0.000!    !END!
883 ! X =     1575.180,  -1444.831,        0,        0.000!    !END!
884 ! X =     1577.695,  -1444.397,        0,        0.000!    !END!
885 ! X =     1580.210,  -1443.963,        0,        0.000!    !END!
886 ! X =     1582.725,  -1443.527,        1,        0.000!    !END!
887 ! X =     1585.240,  -1443.092,        1,        0.000!    !END!
888 ! X =     1587.755,  -1442.655,        0,        0.000!    !END!
889 ! X =     1590.270,  -1442.218,        1,        0.000!    !END!
890 ! X =     1592.784,  -1441.780,        1,        0.000!    !END!
891 ! X =     1595.298,  -1441.342,        1,        0.000!    !END!
892 ! X =     1597.813,  -1440.903,        1,        0.000!    !END!
893 ! X =     1577.213,  -1441.603,        1,        0.000!    !END!
894 ! X =     1579.728,  -1441.169,        1,        0.000!    !END!
895 ! X =     1582.242,  -1440.734,        1,        0.000!    !END!
896 ! X =     1589.784,  -1439.425,        1,        0.000!    !END!
897 ! X =     1592.297,  -1438.987,        1,        0.000!    !END!
898 ! X =     1594.811,  -1438.549,        1,        0.000!    !END!
899 ! X =     1597.324,  -1438.110,        1,        0.000!    !END!
900 ! X =     1579.245,  -1438.375,        1,        0.000!    !END!
901 ! X =     1581.758,  -1437.940,        1,        0.000!    !END!
```

a
Data for each receptor are treated as a separate input subgroup and therefore must end with an input group terminator.

b
Receptor height above ground is optional. If no value is entered, the receptor is placed on the ground.

```
FPL WCEC 3 1250MW 'G' CLASS NATURAL GAS WITH DB, CALPUFF V 5.8       10/3/07
1 3-ON-1 CC UNIT WITH DB
4-km FLORIDA DOMAIN, 2001,  IMPACTS AT ENP
---------------- Run title (3 lines) ------------------------------------------

                    CALPUFF MODEL CONTROL FILE
                    --------------------------

-------------------------------------------------------------------------------

INPUT GROUP: 0 -- Input and Output File Names

--------------
Default Name  Type          File Name
------------  ----          ---------
CALMET.DAT    input    * METDAT =            *
    or
ISCMET.DAT    input    * ISCDAT =            *
    or
PLMMET.DAT    input    * PLMDAT =            *
    or
PROFILE.DAT   input    * PRFDAT =            *
SURFACE.DAT   input    * SFCDAT =            *
RESTARTB.DAT  input    * RSTARTB=            *
--------------------------------------------------------------------------------
CALPUFF.LST   output   ! PUFLST = PUFFOIL.LST !
CONC.DAT      output   ! CONDAT = PUFFOIL.CON !
DFLX.DAT      output   ! DFDAT  = PUFFOIL.DRY !
WFLX.DAT      output   ! WFDAT  = PUFFOIL.WET !

VISB.DAT      output   ! VISDAT =VISB.DAT     !
RESTARTE.DAT  output   * RSTARTE=             *
--------------------------------------------------------------------------------
Emission Files
--------------
PTEMARB.DAT   input    * PTDAT  =             *
VOLEMARB.DAT  input    * VOLDAT =             *
BAEMARB.DAT   input    * ARDAT  =             *
LNEMARB.DAT   input    * LNDAT  =             *
--------------------------------------------------------------------------------
Other Files
-----------
OZONE.DAT     input    ! OZDAT  =C:\BARTHRO3\2001FLoz.DAT !
VD.DAT        input    * VDDAT  =             *
CHEM.DAT      input    * CHEMDAT=             *
H2O2.DAT      input    * H2O2DAT=             *
HILL.DAT      input    * HILDAT=            *
HILLRCT.DAT   input    * RCTDAT=            *
COASTLN.DAT   input    * CSTDAT=            *
FLUXBDY.DAT   input    * BDYDAT=            *
BCON.DAT      input    * BCNDAT=            *
DEBUG.DAT     output   * DEBUG =            *
MASSFLX.DAT   output   * FLXDAT=            *
MASSBAL.DAT   output   * BALDAT=            *
FOG.DAT       output   * FOGDAT=            *
--------------------------------------------------------------------------------
All file names will be converted to lower case if LCFILES = T
Otherwise, if LCFILES = F, file names will be converted to UPPER CASE
         T = lower case      ! LCFILES = T !
         F = UPPER CASE
NOTE: (1) file/path names can be up to 70 characters in length


Provision for multiple input files
----------------------------------

     Number of CALMET.DAT files for run (NMETDAT)
                                  Default: 1       ! NMETDAT =   12   !

     Number of PTEMARB.DAT files for run (NPTDAT)
                                  Default: 0       ! NPTDAT =  0  !

     Number of BAEMARB.DAT files for run (NARDAT)
                                  Default: 0       ! NARDAT =  0  !

     Number of VOLEMARB.DAT files for run (NVOLDAT)
                                  Default: 0       ! NVOLDAT =  0  !

!END!

-------------
Subgroup (0a)
-------------

  The following CALMET.DAT filenames are processed in sequence if NMETDAT>1

Default Name  Type          File Name
------------  ----          ---------
```

```
CALMET.DAT    input    ! METDAT =d:\2001-DOM2EPA\met2001-dom2-JAN.dat ! !END!
CALMET.DAT    input    ! METDAT =d:\2001-DOM2EPA\met2001-dom2-feb.dat ! !END!
CALMET.DAT    input    ! METDAT =d:\2001-DOM2EPA\met2001-dom2-mar.dat ! !END!
CALMET.DAT    input    ! METDAT =d:\2001-DOM2EPA\met2001-dom2-apr.dat ! !END!
CALMET.DAT    input    ! METDAT =d:\2001-DOM2EPA\met2001-dom2-may.dat ! !END!
CALMET.DAT    input    ! METDAT =d:\2001-DOM2EPA\met2001-dom2-jun.dat ! !END!
CALMET.DAT    input    ! METDAT =d:\2001-DOM2EPA\met2001-dom2-jul.dat ! !END!
CALMET.DAT    input    ! METDAT =d:\2001-DOM2EPA\met2001-dom2-aug.dat ! !END!
CALMET.DAT    input    ! METDAT =d:\2001-DOM2EPA\met2001-dom2-sep.dat ! !END!
CALMET.DAT    input    ! METDAT =d:\2001-DOM2EPA\met2001-dom2-oct.dat ! !END!
CALMET.DAT    input    ! METDAT =d:\2001-DOM2EPA\met2001-dom2-nov.dat ! !END!
CALMET.DAT    input    ! METDAT =d:\2001-DOM2EPA\met2001-dom2-dec.dat ! !END!
--------------------------------------------------------------------------------

INPUT GROUP: 1 -- General run control parameters
--------------

    Option to run all periods found
    in the met. file      (METRUN)   Default: 0       ! METRUN =   0  !

         METRUN = 0 - Run period explicitly defined below
         METRUN = 1 - Run all periods in met. file

     Starting date:   Year (IBYR) -- No default       ! IBYR =  2001 !
     (used only if   Month (IBMO) -- No default       ! IBMO =  1  !
      METRUN = 0)      Day (IBDY) -- No default       ! IBDY =  1  !
                      Hour (IBHR) -- No default       ! IBHR =  1  !

     Note: IBHR is the time at the END of the first hour of the simulation
           (IBHR=1, the first hour of a day, runs from 00:00 to 01:00)

     Base time zone        (XBTZ) -- No default       ! XBTZ = 5.0  !
     The zone is the number of hours that must be
     ADDED to the time to obtain UTC (or GMT)
     Examples: PST = 8., MST = 7.
               CST = 6., EST = 5.

     Length of run (hours) (IRLG) -- No default       ! IRLG = 8760 !

     Number of chemical species (NSPEC)
                                      Default: 5      ! NSPEC = 12  !

     Number of chemical species
     to be emitted  (NSE)             Default: 3      ! NSE = 10  !

     Flag to stop run after
     SETUP phase (ITEST)              Default: 2      ! ITEST =  2   !
     (Used to allow checking
     of the model inputs, files, etc.)
           ITEST = 1 - STOPS program after SETUP phase
           ITEST = 2 - Continues with execution of program
                       after SETUP

     Restart Configuration:

        Control flag (MRESTART)       Default: 0      ! MRESTART =  0   !

           0 = Do not read or write a restart file
           1 = Read a restart file at the beginning of
               the run
           2 = Write a restart file during run
           3 = Read a restart file at beginning of run
               and write a restart file during run

        Number of periods in Restart
        output cycle (NRESPD)         Default: 0      ! NRESPD =  0   !

           0 = File written only at last period
          >0 = File updated every NRESPD periods

     Meteorological Data Format (METFM)
                                      Default: 1      ! METFM =  1   !

           METFM = 1 - CALMET binary file (CALMET.MET)
           METFM = 2 - ISC ASCII file (ISCMET.MET)
           METFM = 3 - AUSPLUME ASCII file (PLMMET.MET)
           METFM = 4 - CTDM plus tower file (PROFILE.DAT) and
                       surface parameters file (SURFACE.DAT)
           METFM = 5 - AERMET tower file (PROFILE.DAT) and
                       surface parameters file (SURFACE.DAT)

     Meteorological Profile Data Format (MPRFFM)
            (used only for METFM = 1, 2, 3)
                                      Default: 1      ! MPRFFM =  1   !

           MPRFFM = 1 - CTDM plus tower file (PROFILE.DAT)
           MPRFFM = 2 - AERMET tower file (PROFILE.DAT)
```

```
     PG sigma-y is adjusted by the factor (AVET/PGTIME)**0.2
     Averaging Time (minutes) (AVET)
                                    Default: 60.0    ! AVET = 60. !
     PG Averaging Time (minutes) (PGTIME)
                                    Default: 60.0    ! PGTIME = 60. !

!END!

----------------------------------------------------------------------------

INPUT GROUP: 2 -- Technical options
--------------


     Vertical distribution used in the
     near field (MGAUSS)                Default: 1     ! MGAUSS =  1   !
        0 = uniform
        1 = Gaussian

     Terrain adjustment method
     (MCTADJ)                           Default: 3     ! MCTADJ =  3   !
        0 = no adjustment
        1 = ISC-type of terrain adjustment
        2 = simple, CALPUFF-type of terrain
            adjustment
        3 = partial plume path adjustment

     Subgrid-scale complex terrain
     flag (MCTSG)                       Default: 0     ! MCTSG =  0   !
        0 = not modeled
        1 = modeled

     Near-field puffs modeled as
     elongated slugs? (MSLUG)           Default: 0     ! MSLUG =  0   !
        0 = no
        1 = yes (slug model used)

     Transitional plume rise modeled ?
     (MTRANS)                           Default: 1     ! MTRANS =  1   !
        0 = no  (i.e., final rise only)
        1 = yes (i.e., transitional rise computed)

     Stack tip downwash? (MTIP)         Default: 1     ! MTIP =  1  !
        0 = no  (i.e., no stack tip downwash)
        1 = yes (i.e., use stack tip downwash)

     Method used to simulate building
     downwash? (MBDW)                   Default: 1     ! MBDW =   1  !
        1 = ISC method
        2 = PRIME method

     Vertical wind shear modeled above
     stack top? (MSHEAR)                Default: 0     ! MSHEAR =  0   !
        0 = no  (i.e., vertical wind shear not modeled)
        1 = yes (i.e., vertical wind shear modeled)

     Puff splitting allowed? (MSPLIT)   Default: 0     ! MSPLIT =  0   !
        0 = no (i.e., puffs not split)
        1 = yes (i.e., puffs are split)

     Chemical mechanism flag (MCHEM)    Default: 1     ! MCHEM =  1   !
        0 = chemical transformation not
            modeled
        1 = transformation rates computed
            internally (MESOPUFF II scheme)
        2 = user-specified transformation
            rates used
        3 = transformation rates computed
            internally (RIVAD/ARM3 scheme)
        4 = secondary organic aerosol formation
            computed (MESOPUFF II scheme for OH)

     Aqueous phase transformation flag (MAQCHEM)
     (Used only if MCHEM = 1, or 3)     Default: 0     ! MAQCHEM =  0   !
        0 = aqueous phase transformation
            not modeled
        1 = transformation rates adjusted
            for aqueous phase reactions

     Wet removal modeled ? (MWET)       Default: 1     ! MWET =  1   !
        0 = no
        1 = yes

     Dry deposition modeled ? (MDRY)    Default: 1     ! MDRY =  1   !
        0 = no
        1 = yes
```

```
    (dry deposition method specified
     for each species in Input Group 3)


  Gravitational settling (plume tilt)
  modeled ? (MTILT)                    Default: 0     ! MTILT =  0   !
     0 = no
     1 = yes
     (puff center falls at the gravitational
      settling velocity for 1 particle species)

  Restrictions:
      - MDRY  = 1
      - NSPEC = 1  (must be particle species as well)
      - sg    = 0  GEOMETRIC STANDARD DEVIATION in Group 8 is
                   set to zero for a single particle diameter

  Method used to compute dispersion
  coefficients (MDISP)                 Default: 3     ! MDISP =  3   !

     1 = dispersion coefficients computed from measured values
         of turbulence, sigma v, sigma w
     2 = dispersion coefficients from internally calculated
         sigma v, sigma w using micrometeorological variables
         (u*, w*, L, etc.)
     3 = PG dispersion coefficients for RURAL areas (computed using
         the ISCST multi-segment approximation) and MP coefficients in
         urban areas
     4 = same as 3 except PG coefficients computed using
         the MESOPUFF II eqns.
     5 = CTDM sigmas used for stable and neutral conditions.
         For unstable conditions, sigmas are computed as in
         MDISP = 3, described above.  MDISP = 5 assumes that
         measured values are read

  Sigma-v/sigma-theta, sigma-w measurements used? (MTURBVW)
  (Used only if MDISP = 1 or 5)         Default: 3     ! MTURBVW =  3  !
     1 = use sigma-v or sigma-theta measurements
         from PROFILE.DAT to compute sigma-y
         (valid for METFM = 1, 2, 3, 4, 5)
     2 = use sigma-w measurements
         from PROFILE.DAT to compute sigma-z
         (valid for METFM = 1, 2, 3, 4, 5)
     3 = use both sigma-(v/theta) and sigma-w
         from PROFILE.DAT to compute sigma-y and sigma-z
         (valid for METFM = 1, 2, 3, 4, 5)
     4 = use sigma-theta measurements
         from PLMMET.DAT to compute sigma-y
         (valid only if METFM = 3)

  Back-up method used to compute dispersion
  when measured turbulence data are
  missing (MDISP2)                      Default: 3     ! MDISP2 =  3  !
  (used only if MDISP = 1 or 5)
     2 = dispersion coefficients from internally calculated
         sigma v, sigma w using micrometeorological variables
         (u*, w*, L, etc.)
     3 = PG dispersion coefficients for RURAL areas (computed using
         the ISCST multi-segment approximation) and MP coefficients in
         urban areas
     4 = same as 3 except PG coefficients computed using
         the MESOPUFF II eqns.

  [DIAGNOSTIC FEATURE]
  Method used for Lagrangian timescale for Sigma-y
  (used only if MDISP=1,2 or MDISP2=1,2)
  (MTAULY)                              Default: 0     ! MTAULY =  0  !
     0 = Draxler default 617.284 (s)
     1 = Computed as Lag. Length / (.75 q) -- after SCIPUFF
    10 < Direct user input (s)             -- e.g., 306.9


  [DIAGNOSTIC FEATURE]
  Method used for Advective-Decay timescale for Turbulence
  (used only if MDISP=2 or MDISP2=2)
  (MTAUADV)                             Default: 0     ! MTAUADV =  0  !
     0 = No turbulence advection
     1 = Computed (OPTION NOT IMPLEMENTED)
    10 < Direct user input (s)   -- e.g., 300


  Method used to compute turbulence sigma-v &
  sigma-w using micrometeorological variables
  (Used only if MDISP = 2 or MDISP2 = 2)
  (MCTURB)                              Default: 1     ! MCTURB =  1  !
     1 = Standard CALPUFF subroutines
     2 = AERMOD subroutines
```

```
PG sigma-y,z adj. for roughness?      Default: 0     ! MROUGH =  0  !
(MROUGH)
   0 = no
   1 = yes

Partial plume penetration of          Default: 1     ! MPARTL =  1  !
elevated inversion?
(MPARTL)
   0 = no
   1 = yes

Strength of temperature inversion     Default: 0     ! MTINV =  0  !
provided in PROFILE.DAT extended records?
(MTINV)
   0 = no (computed from measured/default gradients)
   1 = yes

PDF used for dispersion under convective conditions?
                                      Default: 0     ! MPDF =  0  !
(MPDF)
   0 = no
   1 = yes

Sub-Grid TIBL module used for shore line?
                                      Default: 0     ! MSGTIBL = 0  !
(MSGTIBL)
   0 = no
   1 = yes

Boundary conditions (concentration) modeled?
                                      Default: 0     ! MBCON = 0  !
(MBCON)
   0 = no
   1 = yes, using formatted BCON.DAT file
   2 = yes, using unformatted CONC.DAT file

Note:  MBCON > 0 requires that the last species modeled
       be 'BCON'.  Mass is placed in species BCON when
       generating boundary condition puffs so that clean
       air entering the modeling domain can be simulated
       in the same way as polluted air.  Specify zero
       emission of species BCON for all regular sources.

Individual source contributions saved?
                                      Default: 0     ! MSOURCE = 0  !
(MSOURCE)
   0 = no
   1 = yes


Analyses of fogging and icing impacts due to emissions from
arrays of mechanically-forced cooling towers can be performed
using CALPUFF in conjunction with a cooling tower emissions
processor (CTEMISS) and its associated postprocessors.  Hourly
emissions of water vapor and temperature from each cooling tower
cell are computed for the current cell configuration and ambient
conditions by CTEMISS. CALPUFF models the dispersion of these
emissions and provides cloud information in a specialized format
for further analysis. Output to FOG.DAT is provided in either
'plume mode' or 'receptor mode' format.

Configure for FOG Model output?
                                      Default: 0     ! MFOG =  0   !
(MFOG)
   0 = no
   1 = yes  - report results in PLUME Mode format
   2 = yes  - report results in RECEPTOR Mode format


Test options specified to see if
they conform to regulatory
values? (MREG)                        Default: 1     ! MREG =  1   !

   0 = NO checks are made
   1 = Technical options must conform to USEPA
       Long Range Transport (LRT) guidance
                  METFM    1 or 2
                  AVET     60. (min)
                  PGTIME   60. (min)
                  MGAUSS   1
                  MCTADJ   3
                  MTRANS   1
                  MTIP     1
                  MCHEM    1 or 3 (if modeling SOx, NOx)
                  MWET     1
                  MDRY     1
                  MDISP    2 or 3
                  MPDF     0 if MDISP=3
```

```
                              1 if MDISP=2
               MROUGH     0
               MPARTL     1
               SYTDEP     550. (m)
               MHFTSZ     0
               SVMIN      0.5 (m/s)


!END!


-------------------------------------------------------------------------------

INPUT GROUP: 3a, 3b -- Species list
-------------------

------------
Subgroup (3a)
------------

  The following species are modeled:

! CSPEC =          SO2 !         !END!
! CSPEC =          SO4 !         !END!
! CSPEC =          NOX !         !END!
! CSPEC =         HNO3 !         !END!
! CSPEC =          NO3 !         !END!
! CSPEC =       PM0063 !         !END!
! CSPEC =       PM0100 !         !END!
! CSPEC =       PM0125 !         !END!
! CSPEC =       PM0250 !         !END!
! CSPEC =       PM0600 !         !END!
! CSPEC =       PM1000 !         !END!
! CSPEC =           CO !         !END!

                                                        Dry                OUTPUT GROUP
    SPECIES          MODELED          EMITTED       DEPOSITED                 NUMBER
     NAME          (0=NO, 1=YES)    (0=NO, 1=YES)   (0=NO,                  (0=NONE,
   (Limit: 12                                        1=COMPUTED-GAS          1=1st CGRUP,
    Characters                                       2=COMPUTED-PARTICLE     2=2nd CGRUP,
    in length)                                       3=USER-SPECIFIED)       3= etc.)

!          SO2  =         1,              1,           1,                  0    !
!          SO4  =         1,              1,           2,                  0    !
!          NOX  =         1,              1,           1,                  0    !
!         HNO3  =         1,              0,           1,                  0    !
!          NO3  =         1,              0,           2,                  0    !
!       PM0063  =         1,              1,           2,                  1    !
!       PM0100  =         1,              1,           2,                  1    !
!       PM0125  =         1,              1,           2,                  1    !
!       PM0250  =         1,              1,           2,                  1    !
!       PM0600  =         1,              1,           2,                  1    !
!       PM1000  =         1,              1,           2,                  1    !
!           CO  =         1,              1,           0,                  0    !

!END!

-------------
Subgroup (3b)
-------------
  The following names are used for Species-Groups in which results
  for certain species are combined (added) prior to output.  The
  CGRUP name will be used as the species name in output files.
  Use this feature to model specific particle-size distributions
  by treating each size-range as a separate species.
  Order must be consistent with 3(a) above.

! CGRUP =          PM10 !      !END!


INPUT GROUP: 4 -- Map Projection and Grid control parameters
--------------

     Projection for all (X,Y):
     -------------------------

     Map projection
     (PMAP)                     Default: UTM     ! PMAP = LCC   !

         UTM :  Universal Transverse Mercator
         TTM :  Tangential Transverse Mercator
         LCC :  Lambert Conformal Conic
          PS :  Polar Stereographic
          EM :  Equatorial Mercator
        LAZA :  Lambert Azimuthal Equal Area

     False Easting and Northing (km) at the projection origin
     (Used only if PMAP= TTM, LCC, or LAZA)
```

```
(FEAST)                      Default=0.0      ! FEAST  = 0.000  !
(FNORTH)                     Default=0.0      ! FNORTH = 0.000  !

UTM zone (1 to 60)
(Used only if PMAP=UTM)
(IUTMZN)                     No Default       ! IUTMZN =  0 !

Hemisphere for UTM projection?
(Used only if PMAP=UTM)
(UTMHEM)                     Default: N       ! UTMHEM = N  !
    N   :  Northern hemisphere projection
    S   :  Southern hemisphere projection

Latitude and Longitude (decimal degrees) of projection origin
(Used only if PMAP= TTM, LCC, PS, EM, or LAZA)
(RLAT0)                      No Default       ! RLAT0 =  40N !
(RLON0)                      No Default       ! RLON0 =  97W !

    TTM :  RLON0 identifies central (true N/S) meridian of projection
           RLAT0 selected for convenience
    LCC :  RLON0 identifies central (true N/S) meridian of projection
           RLAT0 selected for convenience
    PS  :  RLON0 identifies central (grid N/S) meridian of projection
           RLAT0 selected for convenience
    EM  :  RLON0 identifies central meridian of projection
           RLAT0 is REPLACED by 0.0N (Equator)
    LAZA:  RLON0 identifies longitude of tangent-point of mapping plane
           RLAT0 identifies latitude of tangent-point of mapping plane

Matching parallel(s) of latitude (decimal degrees) for projection
(Used only if PMAP= LCC or PS)
(XLAT1)                      No Default       ! XLAT1 = 33N  !
(XLAT2)                      No Default       ! XLAT2 = 45N  !

    LCC :  Projection cone slices through Earth's surface at XLAT1 and XLAT2
    PS  :  Projection plane slices through Earth at XLAT1
            (XLAT2 is not used)

----------
Note:  Latitudes and longitudes should be positive, and include a
       letter N,S,E, or W indicating north or south latitude, and
       east or west longitude.  For example,
       35.9  N Latitude  =  35.9N
       118.7 E Longitude = 118.7E


Datum-region
------------

The Datum-Region for the coordinates is identified by a character
string.  Many mapping products currently available use the model of the
Earth known as the World Geodetic System 1984 (WGS-84).  Other local
models may be in use, and their selection in CALMET will make its output
consistent with local mapping products.  The list of Datum-Regions with
official transformation parameters is provided by the National Imagery and
Mapping Agency (NIMA).

NIMA Datum - Regions(Examples)
------------------------------------------------------------------------------
WGS-84    WGS-84 Reference Ellipsoid and Geoid, Global coverage (WGS84)
NAS-C     NORTH AMERICAN 1927 Clarke 1866 Spheroid, MEAN FOR CONUS (NAD27)
NAR-C     NORTH AMERICAN 1983 GRS 80 Spheroid, MEAN FOR CONUS (NAD83)
NWS-84    NWS 6370KM Radius, Sphere
ESR-S     ESRI REFERENCE 6371KM Radius, Sphere

Datum-region for output coordinates
(DATUM)                      Default: WGS-84    ! DATUM = NWS-84 !


METEOROLOGICAL Grid:

     Rectangular grid defined for projection PMAP,
     with X the Easting and Y the Northing coordinate

            No. X grid cells (NX)      No default     ! NX = 263   !
            No. Y grid cells (NY)      No default     ! NY = 206    !
         No. vertical layers (NZ)      No default     ! NZ =  10   !

           Grid spacing (DGRIDKM)      No default     ! DGRIDKM = 4. !
                                       Units: km

                Cell face heights
                   (ZFACE(nz+1))       No defaults
                                       Units: m
   * ZFACE = .0, 20.0, 40.0, 80.0, 160.0, 300.0, 600.0, 1000.0, 1500.0, 2200.0,
             3000.0 *
   ! ZFACE = 0.,20.,40.,80.,160.,320.,640.,1200.,2000.,3000.,4000. !
```

```
          Reference Coordinates
         of SOUTHWEST corner of
              grid cell(1, 1):

          X coordinate (XORIGKM)       No default      ! XORIGKM =  721.995 !
          Y coordinate (YORIGKM)       No default      ! YORIGKM = -1598.000 !
                                      Units: km


COMPUTATIONAL Grid:

     The computational grid is identical to or a subset of the MET. grid.
     The lower left (LL) corner of the computational grid is at grid point
     (IBCOMP, JBCOMP) of the MET. grid.  The upper right (UR) corner of the
     computational grid is at grid point (IECOMP, JECOMP) of the MET. grid.
     The grid spacing of the computational grid is the same as the MET. grid.

        X index of LL corner (IBCOMP)      No default     ! IBCOMP =  1  !
                  (1 <= IBCOMP <= NX)

        Y index of LL corner (JBCOMP)      No default     ! JBCOMP =  1  !
                  (1 <= JBCOMP <= NY)


        X index of UR corner (IECOMP)      No default     ! IECOMP = 263 !
                  (1 <= IECOMP <= NX)

        Y index of UR corner (JECOMP)      No default     ! JECOMP = 206 !
                  (1 <= JECOMP <= NY)



SAMPLING Grid (GRIDDED RECEPTORS):

     The lower left (LL) corner of the sampling grid is at grid point
     (IBSAMP, JBSAMP) of the MET. grid.  The upper right (UR) corner of the
     sampling grid is at grid point (IESAMP, JESAMP) of the MET. grid.
     The sampling grid must be identical to or a subset of the computational
     grid.  It may be a nested grid inside the computational grid.
     The grid spacing of the sampling grid is DGRIDKM/MESHDN.

        Logical flag indicating if gridded
        receptors are used (LSAMP)         Default: T     ! LSAMP = F !
        (T=yes, F=no)

        X index of LL corner (IBSAMP)      No default     ! IBSAMP =  1   !
          (IBCOMP <= IBSAMP <= IECOMP)

        Y index of LL corner (JBSAMP)      No default     ! JBSAMP =  1   !
          (JBCOMP <= JBSAMP <= JECOMP)


        X index of UR corner (IESAMP)      No default     ! IESAMP =  263 !
          (IBCOMP <= IESAMP <= IECOMP)

        Y index of UR corner (JESAMP)      No default     ! JESAMP =  206  !
          (JBCOMP <= JESAMP <= JECOMP)


       Nesting factor of the sampling
        grid (MESHDN)                      Default: 1     ! MESHDN =  1  !
        (MESHDN is an integer >= 1)

!END!


-------------------------------------------------------------------------------


INPUT GROUP: 5 -- Output Options
--------------
                                             *                          *
     FILE                        DEFAULT VALUE             VALUE THIS RUN
     ----                        -------------             --------------

   Concentrations (ICON)               1                   !  ICON =  1   !
   Dry Fluxes (IDRY)                   1                   !  IDRY =  1   !
   Wet Fluxes (IWET)                   1                   !  IWET =  1   !
   2D Temperature (IT2D)               0                   !  IT2D =  0   !
   2D Density (IRHO)                   0                   !  IRHO =  0   !
   Relative Humidity (IVIS)            1                   !  IVIS =  1   !
    (relative humidity file is
     required for visibility
     analysis)
   Use data compression option in output file?
   (LCOMPRS)                             Default: T        ! LCOMPRS = T !

   *
```

```
    0 = Do not create file, 1 = create file


    QA PLOT FILE OUTPUT OPTION:

       Create a standard series of output files (e.g.
       locations of sources, receptors, grids ...)
       suitable for plotting?
       (IQAPLOT)                      Default: 1          !  IQAPLOT =  1   !
         0 = no
         1 = yes

    DIAGNOSTIC MASS FLUX OUTPUT OPTIONS:

       Mass flux across specified boundaries
       for selected species reported?
       (IMFLX)                        Default: 0          ! IMFLX =  0  !
         0 = no
         1 = yes (FLUXBDY.DAT and MASSFLX.DAT filenames
                  are specified in Input Group 0)

       Mass balance for each species
       reported?
       (IMBAL)                        Default: 0          ! IMBAL =  0  !
         0 = no
         1 = yes (MASSBAL.DAT filename is
               specified in Input Group 0)


    LINE PRINTER OUTPUT OPTIONS:

       Print concentrations (ICPRT)   Default: 0          ! ICPRT =  0   !
       Print dry fluxes (IDPRT)       Default: 0          ! IDPRT =  0   !
       Print wet fluxes (IWPRT)       Default: 0          ! IWPRT =  0   !
       (0 = Do not print, 1 = Print)

       Concentration print interval
       (ICFRQ) in timesteps           Default: 1          ! ICFRQ =  24  !
       Dry flux print interval
       (IDFRQ) in timesteps           Default: 1          ! IDFRQ =  1   !
       Wet flux print interval
       (IWFRQ) in timesteps           Default: 1          ! IWFRQ =  1   !

       Units for Line Printer Output
       (IPRTU)                        Default: 1          ! IPRTU =  3   !
                       for              for
                  Concentration     Deposition
           1 =       g/m**3          g/m**2/s
           2 =      mg/m**3         mg/m**2/s
           3 =      ug/m**3         ug/m**2/s
           4 =      ng/m**3         ng/m**2/s
           5 =     Odour Units

       Messages tracking progress of run
       written to the screen ?
       (IMESG)                        Default: 2          ! IMESG =  2   !
         0 = no
         1 = yes (advection step, puff ID)
         2 = yes (YYYYJJJHH, # old puffs, # emitted puffs)


     SPECIES (or GROUP for combined species) LIST FOR OUTPUT OPTIONS

                ---- CONCENTRATIONS ----  ------ DRY FLUXES ------   ------ WET FLUXES ------   -- MASS FLUX --
   SPECIES
   /GROUP       PRINTED?  SAVED ON DISK?  PRINTED?  SAVED ON DISK?  PRINTED?  SAVED ON DISK?  SAVED ON DISK?
   -------      ------------------------  ------------------------  ------------------------  ---------------
!        SO2 =     0,          1,           0,          1,           0,          1,            0   !
!        SO4 =     0,          1,           0,          1,           0,          1,            0   !
!        NOX =     0,          1,           0,          1,           0,          1,            0   !
!       HNO3 =     0,          1,           0,          1,           0,          1,            0   !
!        NO3 =     0,          1,           0,          1,           0,          1,            0   !
!       PM10 =     0,          1,           0,          1,           0,          1,            0   !
!         CO =     0,          1,           0,          1,           0,          1,            0   !

     OPTIONS FOR PRINTING "DEBUG" QUANTITIES (much output)

       Logical for debug output
       (LDEBUG)                                 Default: F      ! LDEBUG = F !

       First puff to track
       (IPFDEB)                                 Default: 1      ! IPFDEB =  1  !

       Number of puffs to track
       (NPFDEB)                                 Default: 1      ! NPFDEB =  1  !

       Met. period to start output
       (NN1)                                    Default: 1      ! NN1 =  1   !
```

```
      Met. period to end output
      (NN2)                                   Default: 10     ! NN2 =  10  !

!END!

-------------------------------------------------------------------------------

INPUT GROUP: 6a, 6b, & 6c -- Subgrid scale complex terrain inputs
-------------------------

---------------
Subgroup (6a)
---------------
      Number of terrain features (NHILL)      Default: 0      ! NHILL =  0   !

      Number of special complex terrain
      receptors  (NCTREC)                     Default: 0      ! NCTREC =  0   !

      Terrain and CTSG Receptor data for
      CTSG hills input in CTDM format ?
      (MHILL)                                 No Default      ! MHILL =  2   !
      1 = Hill and Receptor data created
          by CTDM processors & read from
          HILL.DAT and HILLRCT.DAT files
      2 = Hill data created by OPTHILL &
          input below in Subgroup (6b);
          Receptor data in Subgroup (6c)

      Factor to convert horizontal dimensions  Default: 1.0    ! XHILL2M = 1. !
      to meters (MHILL=1)

      Factor to convert vertical dimensions    Default: 1.0    ! ZHILL2M = 1. !
      to meters (MHILL=1)

      X-origin of CTDM system relative to      No Default      ! XCTDMKM = 0.0E00 !
      CALPUFF coordinate system, in Kilometers (MHILL=1)

      Y-origin of CTDM system relative to      No Default      ! YCTDMKM = 0.0E00 !
      CALPUFF coordinate system, in Kilometers (MHILL=1)

! END !

---------------
Subgroup (6b)
---------------

                         1 **
     HILL information


HILL        XC      YC      THETAH  ZGRID  RELIEF   EXPO 1  EXPO 2  SCALE 1  SCALE 2  AMAX1  AMAX2
 NO.       (km)    (km)     (deg.)   (m)     (m)      (m)     (m)      (m)      (m)     (m)    (m)
----       ----    ----     ------  -----  ------   ------  ------  -------  -------  -----  -----

---------------
Subgroup (6c)
---------------

    COMPLEX TERRAIN RECEPTOR INFORMATION

                     XRCT        YRCT        ZRCT        XHH
                     (km)        (km)         (m)
                    ------       -----       ------      ----


-------------------
1
     Description of Complex Terrain Variables:
          XC, YC  = Coordinates of center of hill
          THETAH  = Orientation of major axis of hill (clockwise from
                    North)
          ZGRID   = Height of the  0  of the grid above mean sea
                    level
          RELIEF  = Height of the crest of the hill above the grid elevation
          EXPO 1  = Hill-shape exponent for the major axis
          EXPO 2  = Hill-shape exponent for the major axis
          SCALE 1 = Horizontal length scale along the major axis
          SCALE 2 = Horizontal length scale along the minor axis
          AMAX    = Maximum allowed axis length for the major axis
          BMAX    = Maximum allowed axis length for the major axis

          XRCT, YRCT = Coordinates of the complex terrain receptors
          ZRCT    = Height of the ground (MSL) at the complex terrain
                    Receptor
          XHH     = Hill number associated with each complex terrain receptor
```

```
                    (NOTE: MUST BE ENTERED AS A REAL NUMBER)

  **
   NOTE: DATA for each hill and CTSG receptor are treated as a separate
         input subgroup and therefore must end with an input group terminator.

-------------------------------------------------------------------------------


INPUT GROUP: 7 -- Chemical parameters for dry deposition of gases
--------------

     SPECIES     DIFFUSIVITY      ALPHA STAR      REACTIVITY     MESOPHYLL RESISTANCE      HENRY'S LAW COEFFICIENT
      NAME        (cm**2/s)                                             (s/cm)                 (dimensionless)
     -------     -----------      ----------      ----------     --------------------      -----------------------

!         SO2 =     0.1509,         1000,            8,                 0,                        0.04 !
!         NOX =     0.1656,            1,            8,                 5,                         3.5 !
!        HNO3 =     0.1628,            1,           18,                 0,                  0.00000008 !

!END!

-------------------------------------------------------------------------------


INPUT GROUP: 8 -- Size parameters for dry deposition of particles
--------------

    For SINGLE SPECIES, the mean and standard deviation are used to
    compute a deposition velocity for NINT (see group 9) size-ranges,
    and these are then averaged to obtain a mean deposition velocity.

    For GROUPED SPECIES, the size distribution should be explicitly
    specified (by the 'species' in the group), and the standard deviation
    for each should be entered as 0.  The model will then use the
    deposition velocity for the stated mean diameter.

     SPECIES      GEOMETRIC MASS MEAN        GEOMETRIC STANDARD
      NAME             DIAMETER                  DEVIATION
                       (microns)                 (microns)
     -------      -------------------        -----------------
!         SO4 =         0.48,                    2.   !
!         NO3 =         0.48,                    2.   !
!      PM0063 =         0.63,                    0.   !
!      PM0100 =         1.00,                    0.   !
!      PM0125 =         1.25,                    0.   !
!      PM0250 =         2.50,                    0.   !
!      PM0600 =         6.00,                    0.   !
!      PM1000 =        10.00,                    0.   !

!END!

-------------------------------------------------------------------------------


INPUT GROUP: 9 -- Miscellaneous dry deposition parameters
--------------

    Reference cuticle resistance (s/cm)
    (RCUTR)                           Default: 30     !  RCUTR = 30.0 !
    Reference ground resistance  (s/cm)
    (RGR)                             Default: 10     !    RGR = 10.0 !
    Reference pollutant reactivity
    (REACTR)                          Default: 8      ! REACTR = 8.0 !

    Number of particle-size intervals used to
    evaluate effective particle deposition velocity
    (NINT)                            Default: 9      !   NINT =  9  !

    Vegetation state in unirrigated areas
    (IVEG)                            Default: 1      !   IVEG =  1   !
       IVEG=1 for active and unstressed vegetation
       IVEG=2 for active and stressed vegetation
       IVEG=3 for inactive vegetation

!END!

-------------------------------------------------------------------------------


INPUT GROUP: 10 -- Wet Deposition Parameters
---------------


                      Scavenging Coefficient -- Units: (sec)**(-1)
```

```
       Pollutant      Liquid Precip.       Frozen Precip.
       ---------      --------------       --------------
!          SO2 =         3.0E-05,             0.0E00 !
!          SO4 =         1.0E-04,            3.0E-05 !
!         HNO3 =         6.0E-05,             0.0E00 !
!          NO3 =         1.0E-04,            3.0E-05 !
!       PM0063 =         1.0E-04,            3.0E-05 !
!       PM0100 =         1.0E-04,            3.0E-05 !
!       PM0125 =         1.0E-04,            3.0E-05 !
!       PM0250 =         1.0E-04,            3.0E-05 !
!       PM0600 =         1.0E-04,            3.0E-05 !
!       PM1000 =         1.0E-04,            3.0E-05 !

!END!

-------------------------------------------------------------------------------

INPUT GROUP: 11 -- Chemistry Parameters
---------------

     Ozone data input option (MOZ)     Default: 1             ! MOZ =  1   !
     (Used only if MCHEM = 1, 3, or 4)
        0 = use a monthly background ozone value
        1 = read hourly ozone concentrations from
            the OZONE.DAT data file

     Monthly ozone concentrations
     (Used only if MCHEM = 1, 3, or 4 and
      MOZ = 0 or MOZ = 1 and all hourly O3 data missing)
     (BCKO3) in ppb                    Default: 12*80.
     !  BCKO3 = 12*50. !

     Monthly ammonia concentrations
     (Used only if MCHEM = 1, or 3)
     (BCKNH3) in ppb                   Default: 12*10.
     !  BCKNH3 = 12*0.5 !

     Nighttime SO2 loss rate (RNITE1)
     in percent/hour                   Default: 0.2           ! RNITE1 = .2 !

     Nighttime NOx loss rate (RNITE2)
     in percent/hour                   Default: 2.0           ! RNITE2 = 2.0 !

     Nighttime HNO3 formation rate (RNITE3)
     in percent/hour                   Default: 2.0           ! RNITE3 = 2.0 !

     H2O2 data input option (MH2O2)    Default: 1             ! MH2O2 =  1   !
     (Used only if MAQCHEM = 1)
        0 = use a monthly background H2O2 value
        1 = read hourly H2O2 concentrations from
            the H2O2.DAT data file

     Monthly H2O2 concentrations
     (Used only if MQACHEM = 1 and
      MH2O2 = 0 or MH2O2 = 1 and all hourly H2O2 data missing)
     (BCKH2O2) in ppb                  Default: 12*1.
     !  BCKH2O2 = 12*1 !

 --- Data for SECONDARY ORGANIC AEROSOL (SOA) Option
     (used only if MCHEM = 4)

     The SOA module uses monthly values of:
          Fine particulate concentration in ug/m^3 (BCKPMF)
          Organic fraction of fine particulate     (OFRAC)
          VOC / NOX ratio (after reaction)         (VCNX)
     to characterize the air mass when computing
     the formation of SOA from VOC emissions.
     Typical values for several distinct air mass types are:

        Month    1    2    3    4    5    6    7    8    9   10   11   12
                Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

     Clean Continental
        BCKPMF   1.   1.   1.   1.   1.   1.   1.   1.   1.   1.   1.   1.
        OFRAC  .15  .15  .20  .20  .20  .20  .20  .20  .20  .20  .20  .15
        VCNX    50.  50.  50.  50.  50.  50.  50.  50.  50.  50.  50.  50.

     Clean Marine (surface)
        BCKPMF  .5   .5   .5   .5   .5   .5   .5   .5   .5   .5   .5   .5
        OFRAC  .25  .25  .30  .30  .30  .30  .30  .30  .30  .30  .30  .25
        VCNX    50.  50.  50.  50.  50.  50.  50.  50.  50.  50.  50.  50.

     Urban - low biogenic (controls present)
        BCKPMF  30.  30.  30.  30.  30.  30.  30.  30.  30.  30.  30.  30.
```

```
         OFRAC  .20  .20  .25  .25  .25  .25  .25  .25  .20  .20  .20  .20
         VCNX    4.   4.   4.   4.   4.   4.   4.   4.   4.   4.   4.   4.

      Urban - high biogenic (controls present)
         BCKPMF 60.  60.  60.  60.  60.  60.  60.  60.  60.  60.  60.  60.
         OFRAC  .25  .25  .30  .30  .30  .55  .55  .55  .35  .35  .35  .25
         VCNX   15.  15.  15.  15.  15.  15.  15.  15.  15.  15.  15.  15.

      Regional Plume
         BCKPMF 20.  20.  20.  20.  20.  20.  20.  20.  20.  20.  20.  20.
         OFRAC  .20  .20  .25  .35  .25  .40  .40  .40  .30  .30  .30  .20
         VCNX   15.  15.  15.  15.  15.  15.  15.  15.  15.  15.  15.  15.

      Urban - no controls present
         BCKPMF 100. 100. 100. 100. 100. 100. 100. 100. 100. 100. 100. 100.
         OFRAC  .30  .30  .35  .35  .35  .55  .55  .55  .35  .35  .35  .30
         VCNX    2.   2.   2.   2.   2.   2.   2.   2.   2.   2.   2.   2.

      Default: Clean Continental
      !  BCKPMF = 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00 !
      !  OFRAC  = 0.15, 0.15, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.15 !
      !  VCNX   = 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00 !


!END!


-------------------------------------------------------------------------------


INPUT GROUP: 12 -- Misc. Dispersion and Computational Parameters
---------------

      Horizontal size of puff (m) beyond which
      time-dependent dispersion equations (Heffter)
      are used to determine sigma-y and
      sigma-z (SYTDEP)                           Default: 550.   ! SYTDEP = 5.5E02 !

      Switch for using Heffter equation for sigma z
      as above (0 = Not use Heffter; 1 = use Heffter
      (MHFTSZ)                                   Default: 0      ! MHFTSZ =  0   !

      Stability class used to determine plume
      growth rates for puffs above the boundary
      layer (JSUP)                               Default: 5      ! JSUP =  5   !

      Vertical dispersion constant for stable
      conditions (k1 in Eqn. 2.7-3)  (CONK1)     Default: 0.01   ! CONK1 = .01 !

      Vertical dispersion constant for neutral/
      unstable conditions (k2 in Eqn. 2.7-4)
      (CONK2)                                    Default: 0.1    ! CONK2 = .1 !

      Factor for determining Transition-point from
      Schulman-Scire to Huber-Snyder Building Downwash
      scheme (SS used for Hs < Hb + TBD * HL)
      (TBD)                                      Default: 0.5    ! TBD = .5 !
         TBD < 0    ==> always use Huber-Snyder
         TBD = 1.5 ==> always use Schulman-Scire
         TBD = 0.5 ==> ISC Transition-point

      Range of land use categories for which
      urban dispersion is assumed
      (IURB1, IURB2)                             Default: 10     ! IURB1 =  10  !
                                                          19     ! IURB2 =  19  !

      Site characterization parameters for single-point Met data files ---------
      (needed for METFM = 2,3,4,5)

         Land use category for modeling domain
         (ILANDUIN)                              Default: 20     ! ILANDUIN =  20  !

         Roughness length (m) for modeling domain
         (Z0IN)                                  Default: 0.25   ! Z0IN = .25 !

         Leaf area index for modeling domain
         (XLAIIN)                                Default: 3.0    ! XLAIIN = 3.0 !

         Elevation above sea level (m)
         (ELEVIN)                                Default: 0.0    ! ELEVIN = .0 !

         Latitude (degrees) for met location
         (XLATIN)                                Default: -999.  ! XLATIN = -999.0 !

         Longitude (degrees) for met location
         (XLONIN)                                Default: -999.  ! XLONIN = -999.0 !

      Specialized information for interpreting single-point Met data files -----
```

```
    Anemometer height (m) (Used only if METFM = 2,3)
    (ANEMHT)                                 Default: 10.    ! ANEMHT = 10.0 !

    Form of lateral turbulance data in PROFILE.DAT file
    (Used only if METFM = 4,5 or MTURBVW = 1 or 3)
    (ISIGMAV)                                Default: 1      ! ISIGMAV =  1  !
        0 = read sigma-theta
        1 = read sigma-v

    Choice of mixing heights (Used only if METFM = 4)
    (IMIXCTDM)                               Default: 0      ! IMIXCTDM =  0  !
        0 = read PREDICTED mixing heights
        1 = read OBSERVED mixing heights

 Maximum length of a slug (met. grid units)
 (XMXLEN)                                    Default: 1.0    ! XMXLEN = 1.0 !

 Maximum travel distance of a puff/slug (in
 grid units) during one sampling step
 (XSAMLEN)                                   Default: 1.0    ! XSAMLEN = 1.0 !

 Maximum Number of slugs/puffs release from
 one source during one time step
 (MXNEW)                                     Default: 99     ! MXNEW =  99   !

 Maximum Number of sampling steps for
 one puff/slug during one time step
 (MXSAM)                                     Default: 99     ! MXSAM =  99   !

 Number of iterations used when computing
 the transport wind for a sampling step
 that includes gradual rise (for CALMET
 and PROFILE winds)
 (NCOUNT)                                    Default: 2      ! NCOUNT =  2   !

 Minimum sigma y for a new puff/slug (m)
 (SYMIN)                                     Default: 1.0    ! SYMIN = 1.0  !

 Minimum sigma z for a new puff/slug (m)
 (SZMIN)                                     Default: 1.0    ! SZMIN = 1.0  !

 Default minimum turbulence velocities sigma-v and sigma-w
 for each stability class over land and over water (m/s)
 (SVMIN(12) and SWMIN(12))

                ---------- LAND ----------        --------- WATER ----------
    Stab Class :  A    B    C    D    E    F        A    B    C    D    E    F
                 ---  ---  ---  ---  ---  ---      ---  ---  ---  ---  ---  ---
 Default SVMIN : .50, .50, .50, .50, .50, .50,     .37, .37, .37, .37, .37, .37
 Default SWMIN : .20, .12, .08, .06, .03, .016,    .20, .12, .08, .06, .03, .016

      * SVMIN = 0.500, 0.500, 0.500, 0.500, 0.500, 0.500, 0.370, 0.370, 0.370, 0.370, 0.370, 0.370*
      ! SVMIN = 0.500, 0.500, 0.500, 0.500, 0.500, 0.500, 0.500, 0.500, 0.500, 0.500, 0.500, 0.500!
      ! SWMIN = 0.200, 0.120, 0.080, 0.060, 0.030, 0.016, 0.200, 0.120, 0.080, 0.060, 0.030, 0.016!

 Divergence criterion for dw/dz across puff
 used to initiate adjustment for horizontal
 convergence (1/s)
 Partial adjustment starts at CDIV(1), and
 full adjustment is reached at CDIV(2)
 (CDIV(2))                                   Default: 0.0,0.0  ! CDIV = .0, .0 !

 Minimum wind speed (m/s) allowed for
 non-calm conditions. Also used as minimum
 speed returned when using power-law
 extrapolation toward surface
 (WSCALM)                                    Default: 0.5    ! WSCALM = .5 !

 Maximum mixing height (m)
 (XMAXZI)                                    Default: 3000.  ! XMAXZI = 3000.0 !

 Minimum mixing height (m)
 (XMINZI)                                    Default: 50.    ! XMINZI = 50.0 !

 Default wind speed classes --
 5 upper bounds (m/s) are entered;
 the 6th class has no upper limit
 (WSCAT(5))                        Default    :
                                   ISC RURAL : 1.54, 3.09, 5.14, 8.23, 10.8 (10.8+)

                        Wind Speed Class :  1     2     3     4     5
                                           ---   ---   ---   ---   ---
                              ! WSCAT = 1.54, 3.09, 5.14, 8.23, 10.80 !

 Default wind speed profile power-law
 exponents for stabilities 1-6
 (PLX0(6))                         Default    : ISC RURAL values
```

```
                              ISC RURAL : .07, .07, .10, .15, .35, .55
                              ISC URBAN : .15, .15, .20, .25, .30, .30

                        Stability Class :  A     B     C     D     E     F
                                          ---   ---   ---   ---   ---   ---
                              ! PLX0 = 0.07, 0.07, 0.10, 0.15, 0.35, 0.55 !

     Default potential temperature gradient
     for stable classes E, F (degK/m)
     (PTG0(2))                   Default: 0.020, 0.035
                                   ! PTG0 = 0.020,   0.035 !

     Default plume path coefficients for
     each stability class (used when option
     for partial plume height terrain adjustment
     is selected -- MCTADJ=3)
     (PPC(6))             Stability Class :  A     B     C     D     E     F
                             Default  PPC : .50,  .50,  .50,  .50,  .35,  .35
                                            ---   ---   ---   ---   ---   ---
                              !  PPC = 0.50, 0.50, 0.50, 0.50, 0.35, 0.35 !

     Slug-to-puff transition criterion factor
     equal to sigma-y/length of slug
     (SL2PF)                         Default: 10.        ! SL2PF = 10.0 !

     Puff-splitting control variables ------------------------

       VERTICAL SPLIT
       --------------

       Number of puffs that result every time a puff
       is split - nsplit=2 means that 1 puff splits
       into 2
       (NSPLIT)                      Default:   3        ! NSPLIT =  3  !

       Time(s) of a day when split puffs are eligible to
       be split once again; this is typically set once
       per day, around sunset before nocturnal shear develops.
       24 values: 0 is midnight (00:00) and 23 is 11 PM (23:00)
       0=do not re-split    1=eligible for re-split
       (IRESPLIT(24))                Default:  Hour 17 = 1
       !  IRESPLIT = 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,1,0,0,0,0,0,0 !

       Split is allowed only if last hour's mixing
       height (m) exceeds a minimum value
       (ZISPLIT)                     Default: 100.       ! ZISPLIT = 100.0 !

       Split is allowed only if ratio of last hour's
       mixing ht to the maximum mixing ht experienced
       by the puff is less than a maximum value (this
       postpones a split until a nocturnal layer develops)
       (ROLDMAX)                     Default: 0.25       ! ROLDMAX = 0.25 !


       HORIZONTAL SPLIT
       ----------------

       Number of puffs that result every time a puff
       is split - nsplith=5 means that 1 puff splits
       into 5
       (NSPLITH)                     Default:   5        ! NSPLITH =  5  !

       Minimum sigma-y (Grid Cells Units) of puff
       before it may be split
       (SYSPLITH)                    Default:  1.0       ! SYSPLITH = 1.0 !

       Minimum puff elongation rate (SYSPLITH/hr) due to
       wind shear, before it may be split
       (SHSPLITH)                    Default:  2.        ! SHSPLITH = 2.0 !

       Minimum concentration (g/m^3) of each
       species in puff before it may be split
       Enter array of NSPEC values; if a single value is
       entered, it will be used for ALL species
       (CNSPLITH)                    Default:  1.0E-07   ! CNSPLITH = 1.0E-07 !

     Integration control variables ------------------------

       Fractional convergence criterion for numerical SLUG
       sampling integration
       (EPSSLUG)                     Default:   1.0e-04  ! EPSSLUG = 1.0E-04 !

       Fractional convergence criterion for numerical AREA
       source integration
       (EPSAREA)                     Default:   1.0e-06  ! EPSAREA = 1.0E-06 !

       Trajectory step-length (m) used for numerical rise
       integration
```

```
      (DSRISE)                              Default:   1.0      ! DSRISE = 1.0 !

      Boundary Condition (BC) Puff control variables ------------------------

      Minimum height (m) to which BC puffs are mixed as they are emitted
      (MBCON=2 ONLY).  Actual height is reset to the current mixing height
      at the release point if greater than this minimum.
      (HTMINBC)                             Default:   500.     ! HTMINBC = 500.0 !

      Search radius (km) about a receptor for sampling nearest BC puff.
      BC puffs are typically emitted with a spacing of one grid cell
      length, so the search radius should be greater than DGRIDKM.
      (RSAMPBC)                             Default:   10.      ! RSAMPBC = 10.0 !

      Near-Surface depletion adjustment to concentration profile used when
      sampling BC puffs?
      (MDEPBC)                              Default:   1        ! MDEPBC =  1  !
         0 = Concentration is NOT adjusted for depletion
         1 = Adjust Concentration for depletion

!END!


-------------------------------------------------------------------------------


INPUT GROUPS: 13a, 13b, 13c, 13d -- Point source parameters
--------------------------------

---------------
Subgroup (13a)
---------------

     Number of point sources with
     parameters provided below      (NPT1)  No default  !  NPT1 =  1 !

     Units used for point source
     emissions below                (IPTU)  Default: 1  !  IPTU =   3  !
          1 =       g/s
          2 =      kg/hr
          3 =      lb/hr
          4 =     tons/yr
          5 =     Odour Unit * m**3/s  (vol. flux of odour compound)
          6 =     Odour Unit * m**3/min
          7 =     metric tons/yr

     Number of source-species
     combinations with variable
     emissions scaling factors
     provided below in (13d)        (NSPT1) Default: 0  !  NSPT1 = 0  !

     Number of point sources with
     variable emission parameters
     provided in external file      (NPT2)  No default  !  NPT2 =  0  !

     (If NPT2 > 0, these point
     source emissions are read from
     the file: PTEMARB.DAT)

!END!

---------------
Subgroup (13b)
---------------
                                            a
          POINT SOURCE: CONSTANT DATA
          -----------------------------
                                                                                 b          c
  Source       X           Y       Stack    Base     Stack    Exit  Exit    Bldg.  Emission
   No.     Coordinate Coordinate Height Elevation Diameter  Vel.  Temp.   Dwash   Rates
              (km)       (km)      (m)      (m)       (m)   (m/s) (deg. K)
  ------   ---------- ---------- ------  ------   -------- ----- -------- ----- --------
****************  EMISSION RATES ARE IN LB/HR    ************************

 1  ! SRCNAM = CCOIL !
 1  ! X = 1670.02, -1328.24, 45.4, 4.00, 6.71, 23.66, 454.8, 1.0, 10.8, 2.1, 235.5, 0.0, 0.0,
            28.2, 28.2, 27.9, 27.9, 0.0, 0.0, 143.4 !
 !END!

 --------

    a
     Data for each source are treated as a separate input subgroup
     and therefore must end with an input group terminator.

     SRCNAM  is a 12-character name for a source
             (No default)
     X       is an array holding the source data listed by the column headings
```

```
            (No default)
   SIGYZI   is an array holding the initial sigma-y and sigma-z (m)
            (Default: 0.,0.)
   FMFAC    is a vertical momentum flux factor (0. or 1.0) used to represent
            the effect of rain-caps or other physical configurations that
            reduce momentum rise associated with the actual exit velocity.
            (Default: 1.0  -- full momentum used)
   ZPLTFM   is the platform height (m) for sources influenced by an isolated
            structure that has a significant open area between the surface
            and the bulk of the structure, such as an offshore oil platform.
            The Base Elevation is


  b
   0. = No building downwash modeled, 1. = downwash modeled
   1. = Downwash modeled for buildings resting on the surface
   2. = Downwash modeled for buildings raised above the surface (ZPLTFM > 0.)
   NOTE: must be entered as a REAL number (i.e., with decimal point)

  c
   An emission rate must be entered for every pollutant modeled.
   Enter emission rate of zero for secondary pollutants that are
   modeled, but not emitted.  Units are specified by IPTU
   (e.g. 1 for g/s).

---------------
Subgroup (13c)
---------------

          BUILDING DIMENSION DATA FOR SOURCES SUBJECT TO DOWNWASH
          -----------------------------------------------------
Source                                                                 a
 No.      Effective building height, width, length and X/Y offset (in meters)
          every 10 degrees.  LENGTH, XBADJ, and YBADJ are only needed for
          MBDW=2 (PRIME downwash option)
------    ------------------------------------------------------------------

Subgroup (13c)
       1  ! SRCNAM = CCOIL  !
       1  !  HEIGHT =  31.39,  31.39,  31.39,  31.39,  31.39,  31.39,
                31.39,  31.39,  31.39,  31.39,  31.39,  31.39,
                31.39,  31.39,  31.39,  31.39,  31.39,  31.39,
                31.39,  31.39,  31.39,  31.39,  31.39,  31.39,
                31.39,  31.39,  31.39,  31.39,  31.39,  31.39,
                31.39,  31.39,  31.39,  31.39,  31.39,  31.39 !
       1  !  WIDTH =   43.42,  43.33,  41.93,  39.26,  35.39,  30.44,
                24.57,  17.96,  10.80,  16.56,  23.30,  29.34,
                34.48,  38.57,  41.50,  43.16,  43.51,  42.54,
                43.42,  43.33,  41.93,  39.26,  35.39,  30.44,
                24.57,  17.96,  10.80,  16.56,  23.30,  29.34,
                34.48,  38.57,  41.50,  43.16,  43.51,  42.54 !
!END!


--------

  a
   Building height, width, length, and X/Y offset from the source are treated
   as a separate input subgroup for each source and therefore must end with
   an input group terminator.  The X/Y offset is the position, relative to the
   stack, of the center of the upwind face of the projected building, with the
   x-axis pointing along the flow direction.

---------------
Subgroup (13d)
---------------
                                               a
         POINT SOURCE: VARIABLE EMISSIONS DATA
         ----------------------------------------

   Use this subgroup to describe temporal variations in the emission
   rates given in 13b.  Factors entered multiply the rates in 13b.
   Skip sources here that have constant emissions.  For more elaborate
   variation in source parameters, use PTEMARB.DAT and NPT2 > 0.

   IVARY determines the type of variation, and is source-specific:
   (IVARY)                              Default: 0
         0 =       Constant
         1 =       Diurnal cycle (24 scaling factors: hours 1-24)
         2 =       Monthly cycle (12 scaling factors: months 1-12)
         3 =       Hour & Season (4 groups of 24 hourly scaling factors,
                                  where first group is DEC-JAN-FEB)
         4 =       Speed & Stab. (6 groups of 6 scaling factors, where
                                  first group is Stability Class A,
                                  and the speed classes have upper
                                  bounds (m/s) defined in Group 12
         5 =       Temperature   (12 scaling factors, where temperature
                                  classes have upper bounds (C) of:
```

```
                                      0, 5, 10, 15, 20, 25, 30, 35, 40,
                                      45, 50, 50+)


--------
    a
     Data for each species are treated as a separate input subgroup
     and therefore must end with an input group terminator.


---------------------------------------------------------------------------


INPUT GROUPS: 14a, 14b, 14c, 14d -- Area source parameters
--------------------------------

---------------
Subgroup (14a)
---------------

     Number of polygon area sources with
     parameters specified below (NAR1)       No default  !  NAR1 =  0   !

     Units used for area source
     emissions below            (IARU)       Default: 1  !  IARU =   1  !
           1 =        g/m**2/s
           2 =       kg/m**2/hr
           3 =       lb/m**2/hr
           4 =     tons/m**2/yr
           5 =     Odour Unit * m/s  (vol. flux/m**2 of odour compound)
           6 =     Odour Unit * m/min
           7 =     metric tons/m**2/yr

     Number of source-species
     combinations with variable
     emissions scaling factors
     provided below in (14d)        (NSAR1) Default: 0  !  NSAR1 =  0  !

     Number of buoyant polygon area sources
     with variable location and emission
     parameters (NAR2)                       No default  !  NAR2 =  0   !
     (If NAR2 > 0, ALL parameter data for
     these sources are read from the file: BAEMARB.DAT)

!END!

---------------
Subgroup (14b)
---------------
                                         a
          AREA SOURCE: CONSTANT DATA
          ----------------------------
                                                            b
Source           Effect.   Base      Initial    Emission
 No.             Height   Elevation  Sigma z     Rates
                  (m)       (m)       (m)
-------          ------   ------    --------   ---------


--------
    a
     Data for each source are treated as a separate input subgroup
     and therefore must end with an input group terminator.
    b
     An emission rate must be entered for every pollutant modeled.
     Enter emission rate of zero for secondary pollutants that are
     modeled, but not emitted.  Units are specified by IARU
     (e.g. 1 for g/m**2/s).

---------------
Subgroup (14c)
---------------

          COORDINATES (UTM-km) FOR EACH VERTEX(4) OF EACH POLYGON
          --------------------------------------------------------
Source                                                               a
 No.       Ordered list of X followed by list of Y, grouped by source
------     ------------------------------------------------------------


--------
    a
     Data for each source are treated as a separate input subgroup
     and therefore must end with an input group terminator.


---------------
Subgroup (14d)
```

```
---------------
                                                  a
          AREA SOURCE: VARIABLE EMISSIONS DATA
          ---------------------------------------

     Use this subgroup to describe temporal variations in the emission
     rates given in 14b.  Factors entered multiply the rates in 14b.
     Skip sources here that have constant emissions.  For more elaborate
     variation in source parameters, use BAEMARB.DAT and NAR2 > 0.

     IVARY determines the type of variation, and is source-specific:
     (IVARY)                              Default: 0
           0 =       Constant
           1 =       Diurnal cycle (24 scaling factors: hours 1-24)
           2 =       Monthly cycle (12 scaling factors: months 1-12)
           3 =       Hour & Season (4 groups of 24 hourly scaling factors,
                                    where first group is DEC-JAN-FEB)
           4 =       Speed & Stab. (6 groups of 6 scaling factors, where
                                    first group is Stability Class A,
                                    and the speed classes have upper
                                    bounds (m/s) defined in Group 12
           5 =       Temperature   (12 scaling factors, where temperature
                                    classes have upper bounds (C) of:
                                    0, 5, 10, 15, 20, 25, 30, 35, 40,
                                    45, 50, 50+)


--------
    a
     Data for each species are treated as a separate input subgroup
     and therefore must end with an input group terminator.


----------------------------------------------------------------------------

INPUT GROUPS: 15a, 15b, 15c -- Line source parameters
---------------------------

---------------
Subgroup (15a)
---------------

     Number of buoyant line sources
     with variable location and emission
     parameters (NLN2)                        No default  !  NLN2 =  0   !

     (If NLN2 > 0, ALL parameter data for
      these sources are read from the file: LNEMARB.DAT)

     Number of buoyant line sources (NLINES)        No default   ! NLINES =  0  !

     Units used for line source
     emissions below               (ILNU)         Default: 1  !  ILNU =   1  !
           1 =        g/s
           2 =       kg/hr
           3 =       lb/hr
           4 =     tons/yr
           5 =     Odour Unit * m**3/s  (vol. flux of odour compound)
           6 =     Odour Unit * m**3/min
           7 =     metric tons/yr

     Number of source-species
     combinations with variable
     emissions scaling factors
     provided below in (15c)        (NSLN1) Default: 0  !  NSLN1 =  0  !

     Maximum number of segments used to model
     each line (MXNSEG)                             Default: 7   ! MXNSEG =  7  !

     The following variables are required only if NLINES > 0.  They are
     used in the buoyant line source plume rise calculations.

        Number of distances at which                Default: 6   ! NLRISE =  6  !
        transitional rise is computed

        Average building length (XL)                No default   ! XL = .0 !
                                                    (in meters)

        Average building height (HBL)               No default   ! HBL = .0 !
                                                    (in meters)

        Average building width (WBL)                No default   ! WBL = .0 !
                                                    (in meters)

        Average line source width (WML)             No default   ! WML = .0 !
                                                    (in meters)
```

```
        Average separation between buildings (DXL)  No default   ! DXL = .0 !
                                                    (in meters)

        Average buoyancy parameter (FPRIMEL)        No default   ! FPRIMEL = .0 !
                                                    (in m**4/s**3)

!END!

---------------
Subgroup (15b)
---------------

          BUOYANT LINE SOURCE: CONSTANT DATA
          ----------------------------------
                                                                                        a
Source    Beg. X     Beg. Y     End. X     End. Y    Release   Base        Emission
 No.    Coordinate Coordinate Coordinate Coordinate  Height  Elevation      Rates
           (km)       (km)       (km)       (km)       (m)      (m)
------  ---------- ---------- ---------- ----------  -------  ---------   ---------

--------

    a
     Data for each source are treated as a separate input subgroup
     and therefore must end with an input group terminator.

    b
     An emission rate must be entered for every pollutant modeled.
     Enter emission rate of zero for secondary pollutants that are
     modeled, but not emitted.  Units are specified by ILNTU
     (e.g. 1 for g/s).

---------------
Subgroup (15c)
---------------
                                                                  a
          BUOYANT LINE SOURCE: VARIABLE EMISSIONS DATA
          --------------------------------------------

     Use this subgroup to describe temporal variations in the emission
     rates given in 15b.  Factors entered multiply the rates in 15b.
     Skip sources here that have constant emissions.

     IVARY determines the type of variation, and is source-specific:
     (IVARY)                             Default: 0
           0 =       Constant
           1 =       Diurnal cycle (24 scaling factors: hours 1-24)
           2 =       Monthly cycle (12 scaling factors: months 1-12)
           3 =       Hour & Season (4 groups of 24 hourly scaling factors,
                                    where first group is DEC-JAN-FEB)
           4 =       Speed & Stab. (6 groups of 6 scaling factors, where
                                    first group is Stability Class A,
                                    and the speed classes have upper
                                    bounds (m/s) defined in Group 12
           5 =       Temperature   (12 scaling factors, where temperature
                                    classes have upper bounds (C) of:
                                    0, 5, 10, 15, 20, 25, 30, 35, 40,
                                    45, 50, 50+)


--------
    a
     Data for each species are treated as a separate input subgroup
     and therefore must end with an input group terminator.


----------------------------------------------------------------------------


INPUT GROUPS: 16a, 16b, 16c -- Volume source parameters
---------------------------

---------------
Subgroup (16a)
---------------

     Number of volume sources with
     parameters provided in 16b,c (NVL1)     No default  !  NVL1 =  0   !

     Units used for volume source
     emissions below in 16b       (IVLU)     Default: 1  !  IVLU =   1  !
           1 =        g/s
           2 =        kg/hr
           3 =        lb/hr
           4 =      tons/yr
           5 =      Odour Unit * m**3/s  (vol. flux of odour compound)
           6 =      Odour Unit * m**3/min
```

```
        7 =     metric tons/yr

     Number of source-species
     combinations with variable
     emissions scaling factors
     provided below in (16c)      (NSVL1)    Default: 0  !  NSVL1 =  0  !

     Number of volume sources with
     variable location and emission
     parameters                   (NVL2)     No default  !  NVL2 =   0   !

     (If NVL2 > 0, ALL parameter data for
      these sources are read from the VOLEMARB.DAT file(s) )

!END!

---------------
Subgroup (16b)
---------------
                                               a
          VOLUME SOURCE: CONSTANT DATA
          ------------------------------
                                                                        b
      X UTM      Y UTM      Effect.   Base      Initial    Initial   Emission
    Coordinate Coordinate   Height  Elevation   Sigma y    Sigma z    Rates
      (km)       (km)        (m)      (m)        (m)        (m)
    ---------- ----------   ------   ------    --------   --------   --------


--------
    a
     Data for each source are treated as a separate input subgroup
     and therefore must end with an input group terminator.

    b
     An emission rate must be entered for every pollutant modeled.
     Enter emission rate of zero for secondary pollutants that are
     modeled, but not emitted.  Units are specified by IVLU
     (e.g. 1 for g/s).

---------------
Subgroup (16c)
---------------
                                                   a
         VOLUME SOURCE: VARIABLE EMISSIONS DATA
         ---------------------------------------

     Use this subgroup to describe temporal variations in the emission
     rates given in 16b.  Factors entered multiply the rates in 16b.
     Skip sources here that have constant emissions.  For more elaborate
     variation in source parameters, use VOLEMARB.DAT and NVL2 > 0.

     IVARY determines the type of variation, and is source-specific:
     (IVARY)                              Default: 0
           0 =       Constant
           1 =       Diurnal cycle (24 scaling factors: hours 1-24)
           2 =       Monthly cycle (12 scaling factors: months 1-12)
           3 =       Hour & Season (4 groups of 24 hourly scaling factors,
                                    where first group is DEC-JAN-FEB)
           4 =       Speed & Stab. (6 groups of 6 scaling factors, where
                                    first group is Stability Class A,
                                    and the speed classes have upper
                                    bounds (m/s) defined in Group 12
           5 =       Temperature   (12 scaling factors, where temperature
                                    classes have upper bounds (C) of:
                                    0, 5, 10, 15, 20, 25, 30, 35, 40,
                                    45, 50, 50+)


--------
    a
     Data for each species are treated as a separate input subgroup
     and therefore must end with an input group terminator.


---------------------------------------------------------------------------

INPUT GROUPS: 17a & 17b -- Non-gridded (discrete) receptor information
----------------------

---------------
Subgroup (17a)
---------------

     Number of non-gridded receptors (NREC)  No default  !  NREC = 901  !

!END!
```

```
---------------
Subgroup (17b)
---------------
                                                  a
           NON-GRIDDED (DISCRETE) RECEPTOR DATA
           ------------------------------------

                      X            Y           Ground        Height   b
Receptor          Coordinate   Coordinate    Elevation    Above Ground
  No.                (km)         (km)          (m)            (m)
--------          ----------   ----------    ---------    ------------
RECEPTORS OBTAINED FROM THE NPS/FWS EXTRACTION PROGRAM
ALL RECEPTORS ARE LCC (KM)

RECEPTORS OBTAINED FROM THE NPS/FWS EXTRACTION PROGRAM
ALL RECEPTORS ARE LCC (KM)
      1 ! X =    1660.127,  -1542.381,        0,        0.000!    !END!
      2 ! X =    1654.541,  -1540.491,        0,        0.000!    !END!
      3 ! X =    1657.082,  -1540.035,        0,        0.000!    !END!
      4 ! X =    1659.624,  -1539.579,        0,        0.000!    !END!
      5 ! X =    1662.165,  -1539.122,        0,        0.000!    !END!
      6 ! X =    1664.706,  -1538.665,        0,        0.000!    !END!
      7 ! X =    1651.498,  -1538.144,        0,        0.000!    !END!
      8 ! X =    1654.039,  -1537.689,        0,        0.000!    !END!
      9 ! X =    1656.580,  -1537.234,        0,        0.000!    !END!
     10 ! X =    1659.121,  -1536.778,        0,        0.000!    !END!
     11 ! X =    1661.661,  -1536.321,        0,        0.000!    !END!
     12 ! X =    1664.201,  -1535.864,        0,        0.000!    !END!
     13 ! X =    1666.742,  -1535.406,        0,        0.000!    !END!
     14 ! X =    1669.282,  -1534.947,        0,        0.000!    !END!
     15 ! X =    1648.457,  -1535.797,        0,        0.000!    !END!
     16 ! X =    1650.998,  -1535.343,        0,        0.000!    !END!
     17 ! X =    1653.538,  -1534.888,        0,        0.000!    !END!
     18 ! X =    1656.078,  -1534.433,        0,        0.000!    !END!
     19 ! X =    1658.617,  -1533.977,        0,        0.000!    !END!
     20 ! X =    1661.157,  -1533.520,        0,        0.000!    !END!
     21 ! X =    1663.697,  -1533.063,        0,        0.000!    !END!
     22 ! X =    1666.236,  -1532.605,        0,        0.000!    !END!
     23 ! X =    1668.775,  -1532.146,        0,        0.000!    !END!
     24 ! X =    1671.315,  -1531.687,        0,        0.000!    !END!
     25 ! X =    1673.854,  -1531.227,        0,        0.000!    !END!
     26 ! X =    1645.418,  -1533.449,        0,        0.000!    !END!
     27 ! X =    1647.957,  -1532.996,        0,        0.000!    !END!
     28 ! X =    1650.497,  -1532.542,        0,        0.000!    !END!
     29 ! X =    1653.036,  -1532.087,        0,        0.000!    !END!
     30 ! X =    1655.575,  -1531.632,        0,        0.000!    !END!
     31 ! X =    1658.114,  -1531.177,        0,        0.000!    !END!
     32 ! X =    1660.653,  -1530.720,        0,        0.000!    !END!
     33 ! X =    1663.192,  -1530.263,        0,        0.000!    !END!
     34 ! X =    1665.731,  -1529.805,        0,        0.000!    !END!
     35 ! X =    1668.269,  -1529.346,        0,        0.000!    !END!
     36 ! X =    1670.808,  -1528.887,        0,        0.000!    !END!
     37 ! X =    1673.346,  -1528.427,        0,        0.000!    !END!
     38 ! X =    1675.884,  -1527.966,        0,        0.000!    !END!
     39 ! X =    1642.380,  -1531.100,        0,        0.000!    !END!
     40 ! X =    1644.918,  -1530.648,        0,        0.000!    !END!
     41 ! X =    1647.457,  -1530.195,        0,        0.000!    !END!
     42 ! X =    1649.996,  -1529.741,        0,        0.000!    !END!
     43 ! X =    1652.534,  -1529.287,        0,        0.000!    !END!
     44 ! X =    1655.073,  -1528.832,        0,        0.000!    !END!
     45 ! X =    1657.611,  -1528.376,        0,        0.000!    !END!
     46 ! X =    1660.149,  -1527.920,        0,        0.000!    !END!
     47 ! X =    1662.687,  -1527.463,        0,        0.000!    !END!
     48 ! X =    1665.225,  -1527.005,        0,        0.000!    !END!
     49 ! X =    1667.763,  -1526.547,        0,        0.000!    !END!
     50 ! X =    1670.301,  -1526.088,        0,        0.000!    !END!
     51 ! X =    1672.838,  -1525.628,        0,        0.000!    !END!
     52 ! X =    1675.376,  -1525.167,        0,        0.000!    !END!
     53 ! X =    1677.913,  -1524.706,        0,        0.000!    !END!
     54 ! X =    1680.450,  -1524.244,        0,        0.000!    !END!
     55 ! X =    1639.343,  -1528.750,        0,        0.000!    !END!
     56 ! X =    1641.881,  -1528.299,        0,        0.000!    !END!
     57 ! X =    1644.419,  -1527.847,        0,        0.000!    !END!
     58 ! X =    1646.957,  -1527.394,        0,        0.000!    !END!
     59 ! X =    1649.495,  -1526.941,        0,        0.000!    !END!
     60 ! X =    1652.033,  -1526.487,        0,        0.000!    !END!
     61 ! X =    1654.571,  -1526.032,        0,        0.000!    !END!
     62 ! X =    1657.108,  -1525.576,        0,        0.000!    !END!
     63 ! X =    1659.645,  -1525.120,        0,        0.000!    !END!
     64 ! X =    1662.183,  -1524.663,        0,        0.000!    !END!
     65 ! X =    1664.720,  -1524.206,        0,        0.000!    !END!
     66 ! X =    1667.257,  -1523.747,        0,        0.000!    !END!
     67 ! X =    1669.794,  -1523.288,        0,        0.000!    !END!
     68 ! X =    1672.331,  -1522.829,        0,        0.000!    !END!
     69 ! X =    1674.867,  -1522.368,        0,        0.000!    !END!
     70 ! X =    1677.404,  -1521.907,        0,        0.000!    !END!
     71 ! X =    1679.940,  -1521.445,        0,        0.000!    !END!
```

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 72 ! X =    1682.476,  -1520.983,      0,      0.000!   !END!
 73 ! X =    1685.012,  -1520.520,      0,      0.000!   !END!
 74 ! X =    1636.308,  -1526.400,      0,      0.000!   !END!
 75 ! X =    1638.845,  -1525.950,      0,      0.000!   !END!
 76 ! X =    1641.383,  -1525.498,      0,      0.000!   !END!
 77 ! X =    1643.920,  -1525.046,      0,      0.000!   !END!
 78 ! X =    1646.457,  -1524.594,      0,      0.000!   !END!
 79 ! X =    1648.995,  -1524.141,      0,      0.000!   !END!
 80 ! X =    1651.531,  -1523.687,      0,      0.000!   !END!
 81 ! X =    1654.068,  -1523.232,      0,      0.000!   !END!
 82 ! X =    1656.605,  -1522.777,      0,      0.000!   !END!
 83 ! X =    1659.142,  -1522.320,      0,      0.000!   !END!
 84 ! X =    1661.678,  -1521.864,      0,      0.000!   !END!
 85 ! X =    1664.215,  -1521.406,      0,      0.000!   !END!
 86 ! X =    1666.751,  -1520.948,      0,      0.000!   !END!
 87 ! X =    1669.287,  -1520.489,      0,      0.000!   !END!
 88 ! X =    1671.823,  -1520.030,      0,      0.000!   !END!
 89 ! X =    1674.359,  -1519.569,      0,      0.000!   !END!
 90 ! X =    1676.895,  -1519.108,      0,      0.000!   !END!
 91 ! X =    1679.430,  -1518.647,      0,      0.000!   !END!
 92 ! X =    1681.966,  -1518.184,      0,      0.000!   !END!
 93 ! X =    1684.501,  -1517.721,      0,      0.000!   !END!
 94 ! X =    1687.036,  -1517.258,      0,      0.000!   !END!
 95 ! X =    1689.571,  -1516.793,      0,      0.000!   !END!
 96 ! X =    1635.811,  -1523.599,      0,      0.000!   !END!
 97 ! X =    1638.348,  -1523.149,      0,      0.000!   !END!
 98 ! X =    1640.884,  -1522.698,      0,      0.000!   !END!
 99 ! X =    1643.421,  -1522.246,      0,      0.000!   !END!
100 ! X =    1645.958,  -1521.794,      0,      0.000!   !END!
101 ! X =    1648.494,  -1521.341,      0,      0.000!   !END!
102 ! X =    1651.030,  -1520.887,      0,      0.000!   !END!
103 ! X =    1653.566,  -1520.432,      0,      0.000!   !END!
104 ! X =    1656.102,  -1519.977,      0,      0.000!   !END!
105 ! X =    1658.638,  -1519.521,      0,      0.000!   !END!
106 ! X =    1661.174,  -1519.065,      0,      0.000!   !END!
107 ! X =    1663.709,  -1518.607,      0,      0.000!   !END!
108 ! X =    1666.245,  -1518.149,      0,      0.000!   !END!
109 ! X =    1668.780,  -1517.690,      0,      0.000!   !END!
110 ! X =    1671.315,  -1517.231,      0,      0.000!   !END!
111 ! X =    1673.850,  -1516.771,      0,      0.000!   !END!
112 ! X =    1676.385,  -1516.310,      0,      0.000!   !END!
113 ! X =    1678.920,  -1515.849,      0,      0.000!   !END!
114 ! X =    1681.455,  -1515.386,      0,      0.000!   !END!
115 ! X =    1683.990,  -1514.923,      0,      0.000!   !END!
116 ! X =    1686.524,  -1514.460,      0,      0.000!   !END!
117 ! X =    1689.058,  -1513.995,      0,      0.000!   !END!
118 ! X =    1632.778,  -1521.249,      0,      0.000!   !END!
119 ! X =    1635.314,  -1520.799,      0,      0.000!   !END!
120 ! X =    1637.850,  -1520.349,      0,      0.000!   !END!
121 ! X =    1640.386,  -1519.898,      0,      0.000!   !END!
122 ! X =    1642.922,  -1519.446,      0,      0.000!   !END!
123 ! X =    1645.458,  -1518.994,      0,      0.000!   !END!
124 ! X =    1647.993,  -1518.541,      0,      0.000!   !END!
125 ! X =    1650.529,  -1518.087,      0,      0.000!   !END!
126 ! X =    1653.064,  -1517.633,      0,      0.000!   !END!
127 ! X =    1655.599,  -1517.178,      0,      0.000!   !END!
128 ! X =    1658.134,  -1516.722,      0,      0.000!   !END!
129 ! X =    1660.669,  -1516.266,      0,      0.000!   !END!
130 ! X =    1663.204,  -1515.808,      0,      0.000!   !END!
131 ! X =    1665.739,  -1515.351,      0,      0.000!   !END!
132 ! X =    1668.273,  -1514.892,      0,      0.000!   !END!
133 ! X =    1670.808,  -1514.433,      0,      0.000!   !END!
134 ! X =    1673.342,  -1513.973,      0,      0.000!   !END!
135 ! X =    1675.876,  -1513.512,      0,      0.000!   !END!
136 ! X =    1678.410,  -1513.051,      0,      0.000!   !END!
137 ! X =    1680.944,  -1512.589,      0,      0.000!   !END!
138 ! X =    1683.478,  -1512.126,      0,      0.000!   !END!
139 ! X =    1686.012,  -1511.662,      0,      0.000!   !END!
140 ! X =    1688.545,  -1511.198,      0,      0.000!   !END!
141 ! X =    1691.079,  -1510.733,      1,      0.000!   !END!
142 ! X =    1629.747,  -1518.897,      0,      0.000!   !END!
143 ! X =    1632.282,  -1518.449,      0,      0.000!   !END!
144 ! X =    1634.817,  -1517.999,      0,      0.000!   !END!
145 ! X =    1637.353,  -1517.549,      0,      0.000!   !END!
146 ! X =    1639.888,  -1517.098,      0,      0.000!   !END!
147 ! X =    1642.423,  -1516.647,      0,      0.000!   !END!
148 ! X =    1644.958,  -1516.195,      0,      0.000!   !END!
149 ! X =    1647.493,  -1515.742,      0,      0.000!   !END!
150 ! X =    1650.027,  -1515.288,      0,      0.000!   !END!
151 ! X =    1652.562,  -1514.834,      0,      0.000!   !END!
152 ! X =    1655.096,  -1514.379,      0,      0.000!   !END!
153 ! X =    1657.631,  -1513.923,      0,      0.000!   !END!
154 ! X =    1660.165,  -1513.467,      0,      0.000!   !END!
155 ! X =    1662.699,  -1513.010,      0,      0.000!   !END!
156 ! X =    1665.233,  -1512.552,      0,      0.000!   !END!
157 ! X =    1667.767,  -1512.094,      0,      0.000!   !END!
158 ! X =    1670.300,  -1511.635,      0,      0.000!   !END!
159 ! X =    1672.834,  -1511.175,      1,      0.000!   !END!
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160 ! X =    1675.367,  -1510.714,        1,        0.000!   !END!
161 ! X =    1677.901,  -1510.253,        0,        0.000!   !END!
162 ! X =    1680.434,  -1509.791,        0,        0.000!   !END!
163 ! X =    1682.967,  -1509.328,        0,        0.000!   !END!
164 ! X =    1685.500,  -1508.865,        0,        0.000!   !END!
165 ! X =    1688.033,  -1508.401,        0,        0.000!   !END!
166 ! X =    1690.565,  -1507.936,        0,        0.000!   !END!
167 ! X =    1693.098,  -1507.471,        0,        0.000!   !END!
168 ! X =    1626.717,  -1516.545,        0,        0.000!   !END!
169 ! X =    1629.251,  -1516.097,        0,        0.000!   !END!
170 ! X =    1631.786,  -1515.649,        1,        0.000!   !END!
171 ! X =    1634.321,  -1515.200,        0,        0.000!   !END!
172 ! X =    1636.855,  -1514.750,        0,        0.000!   !END!
173 ! X =    1639.390,  -1514.299,        1,        0.000!   !END!
174 ! X =    1641.924,  -1513.848,        0,        0.000!   !END!
175 ! X =    1644.458,  -1513.396,        0,        0.000!   !END!
176 ! X =    1646.992,  -1512.943,        0,        0.000!   !END!
177 ! X =    1649.526,  -1512.489,        0,        0.000!   !END!
178 ! X =    1652.060,  -1512.035,        0,        0.000!   !END!
179 ! X =    1654.594,  -1511.580,        0,        0.000!   !END!
180 ! X =    1657.127,  -1511.125,        0,        0.000!   !END!
181 ! X =    1659.661,  -1510.669,        0,        0.000!   !END!
182 ! X =    1662.194,  -1510.212,        0,        0.000!   !END!
183 ! X =    1664.727,  -1509.754,        0,        0.000!   !END!
184 ! X =    1667.260,  -1509.296,        0,        0.000!   !END!
185 ! X =    1669.793,  -1508.837,        0,        0.000!   !END!
186 ! X =    1672.326,  -1508.377,        0,        0.000!   !END!
187 ! X =    1674.858,  -1507.917,        0,        0.000!   !END!
188 ! X =    1677.391,  -1507.456,        0,        0.000!   !END!
189 ! X =    1679.923,  -1506.994,        0,        0.000!   !END!
190 ! X =    1682.456,  -1506.531,        0,        0.000!   !END!
191 ! X =    1684.988,  -1506.068,        0,        0.000!   !END!
192 ! X =    1687.520,  -1505.604,        0,        0.000!   !END!
193 ! X =    1690.052,  -1505.140,        0,        0.000!   !END!
194 ! X =    1692.584,  -1504.674,        0,        0.000!   !END!
195 ! X =    1695.115,  -1504.208,        0,        0.000!   !END!
196 ! X =    1623.688,  -1514.192,        0,        0.000!   !END!
197 ! X =    1626.222,  -1513.745,        0,        0.000!   !END!
198 ! X =    1628.756,  -1513.298,        1,        0.000!   !END!
199 ! X =    1631.290,  -1512.849,        1,        0.000!   !END!
200 ! X =    1633.824,  -1512.400,        1,        0.000!   !END!
201 ! X =    1636.358,  -1511.950,        1,        0.000!   !END!
202 ! X =    1638.892,  -1511.500,        1,        0.000!   !END!
203 ! X =    1641.425,  -1511.049,        1,        0.000!   !END!
204 ! X =    1643.959,  -1510.597,        1,        0.000!   !END!
205 ! X =    1646.492,  -1510.144,        1,        0.000!   !END!
206 ! X =    1649.025,  -1509.691,        0,        0.000!   !END!
207 ! X =    1651.558,  -1509.237,        0,        0.000!   !END!
208 ! X =    1654.091,  -1508.782,        0,        0.000!   !END!
209 ! X =    1656.624,  -1508.327,        0,        0.000!   !END!
210 ! X =    1659.156,  -1507.871,        1,        0.000!   !END!
211 ! X =    1661.689,  -1507.414,        1,        0.000!   !END!
212 ! X =    1664.221,  -1506.956,        1,        0.000!   !END!
213 ! X =    1666.754,  -1506.498,        0,        0.000!   !END!
214 ! X =    1669.286,  -1506.039,        0,        0.000!   !END!
215 ! X =    1671.818,  -1505.580,        0,        0.000!   !END!
216 ! X =    1674.350,  -1505.120,        0,        0.000!   !END!
217 ! X =    1676.881,  -1504.659,        0,        0.000!   !END!
218 ! X =    1679.413,  -1504.197,        0,        0.000!   !END!
219 ! X =    1681.944,  -1503.735,        0,        0.000!   !END!
220 ! X =    1684.476,  -1503.272,        0,        0.000!   !END!
221 ! X =    1687.007,  -1502.808,        0,        0.000!   !END!
222 ! X =    1689.538,  -1502.343,        0,        0.000!   !END!
223 ! X =    1692.069,  -1501.878,        0,        0.000!   !END!
224 ! X =    1694.600,  -1501.412,        1,        0.000!   !END!
225 ! X =    1697.131,  -1500.946,        0,        0.000!   !END!
226 ! X =    1620.661,  -1511.839,        0,        0.000!   !END!
227 ! X =    1623.195,  -1511.393,        0,        0.000!   !END!
228 ! X =    1625.728,  -1510.946,        0,        0.000!   !END!
229 ! X =    1628.261,  -1510.498,        1,        0.000!   !END!
230 ! X =    1630.795,  -1510.050,        1,        0.000!   !END!
231 ! X =    1633.328,  -1509.601,        1,        0.000!   !END!
232 ! X =    1635.861,  -1509.151,        1,        0.000!   !END!
233 ! X =    1638.394,  -1508.701,        1,        0.000!   !END!
234 ! X =    1640.926,  -1508.250,        1,        0.000!   !END!
235 ! X =    1643.459,  -1507.798,        1,        0.000!   !END!
236 ! X =    1645.992,  -1507.346,        1,        0.000!   !END!
237 ! X =    1648.524,  -1506.892,        1,        0.000!   !END!
238 ! X =    1651.056,  -1506.439,        1,        0.000!   !END!
239 ! X =    1653.588,  -1505.984,        1,        0.000!   !END!
240 ! X =    1656.120,  -1505.529,        1,        0.000!   !END!
241 ! X =    1658.652,  -1505.073,        0,        0.000!   !END!
242 ! X =    1661.184,  -1504.616,        1,        0.000!   !END!
243 ! X =    1663.716,  -1504.159,        1,        0.000!   !END!
244 ! X =    1666.247,  -1503.701,        1,        0.000!   !END!
245 ! X =    1668.778,  -1503.242,        1,        0.000!   !END!
246 ! X =    1671.310,  -1502.783,        1,        0.000!   !END!
247 ! X =    1673.841,  -1502.323,        0,        0.000!   !END!
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248 ! X =   1676.372,  -1501.862,   0,   0.000!  !END!
249 ! X =   1678.903,  -1501.400,   0,   0.000!  !END!
250 ! X =   1681.433,  -1500.938,   0,   0.000!  !END!
251 ! X =   1683.964,  -1500.475,   0,   0.000!  !END!
252 ! X =   1686.494,  -1500.012,   0,   0.000!  !END!
253 ! X =   1689.025,  -1499.547,   0,   0.000!  !END!
254 ! X =   1691.555,  -1499.082,   0,   0.000!  !END!
255 ! X =   1694.085,  -1498.617,   1,   0.000!  !END!
256 ! X =   1696.615,  -1498.150,   0,   0.000!  !END!
257 ! X =   1699.145,  -1497.683,   0,   0.000!  !END!
258 ! X =   1620.168,  -1509.039,   0,   0.000!  !END!
259 ! X =   1622.701,  -1508.593,   1,   0.000!  !END!
260 ! X =   1625.234,  -1508.147,   1,   0.000!  !END!
261 ! X =   1627.766,  -1507.699,   1,   0.000!  !END!
262 ! X =   1630.299,  -1507.251,   1,   0.000!  !END!
263 ! X =   1632.831,  -1506.802,   1,   0.000!  !END!
264 ! X =   1635.364,  -1506.353,   1,   0.000!  !END!
265 ! X =   1637.896,  -1505.902,   1,   0.000!  !END!
266 ! X =   1640.428,  -1505.451,   1,   0.000!  !END!
267 ! X =   1642.959,  -1505.000,   1,   0.000!  !END!
268 ! X =   1645.491,  -1504.547,   1,   0.000!  !END!
269 ! X =   1648.023,  -1504.094,   1,   0.000!  !END!
270 ! X =   1650.554,  -1503.641,   1,   0.000!  !END!
271 ! X =   1653.086,  -1503.186,   1,   0.000!  !END!
272 ! X =   1655.617,  -1502.731,   1,   0.000!  !END!
273 ! X =   1658.148,  -1502.275,   1,   0.000!  !END!
274 ! X =   1660.679,  -1501.819,   1,   0.000!  !END!
275 ! X =   1663.210,  -1501.362,   1,   0.000!  !END!
276 ! X =   1665.741,  -1500.904,   1,   0.000!  !END!
277 ! X =   1668.271,  -1500.445,   1,   0.000!  !END!
278 ! X =   1670.802,  -1499.986,   1,   0.000!  !END!
279 ! X =   1673.332,  -1499.526,   1,   0.000!  !END!
280 ! X =   1675.862,  -1499.065,   1,   0.000!  !END!
281 ! X =   1678.392,  -1498.604,   1,   0.000!  !END!
282 ! X =   1680.922,  -1498.142,   0,   0.000!  !END!
283 ! X =   1683.452,  -1497.679,   0,   0.000!  !END!
284 ! X =   1685.982,  -1497.216,   0,   0.000!  !END!
285 ! X =   1688.511,  -1496.751,   1,   0.000!  !END!
286 ! X =   1691.041,  -1496.287,   0,   0.000!  !END!
287 ! X =   1693.570,  -1495.821,   0,   0.000!  !END!
288 ! X =   1617.144,  -1506.685,   0,   0.000!  !END!
289 ! X =   1619.676,  -1506.240,   0,   0.000!  !END!
290 ! X =   1622.208,  -1505.794,   1,   0.000!  !END!
291 ! X =   1624.740,  -1505.347,   1,   0.000!  !END!
292 ! X =   1627.272,  -1504.900,   1,   0.000!  !END!
293 ! X =   1629.803,  -1504.452,   1,   0.000!  !END!
294 ! X =   1632.335,  -1504.003,   1,   0.000!  !END!
295 ! X =   1634.866,  -1503.554,   1,   0.000!  !END!
296 ! X =   1637.398,  -1503.104,   1,   0.000!  !END!
297 ! X =   1639.929,  -1502.653,   1,   0.000!  !END!
298 ! X =   1642.460,  -1502.202,   0,   0.000!  !END!
299 ! X =   1644.991,  -1501.750,   0,   0.000!  !END!
300 ! X =   1647.522,  -1501.297,   1,   0.000!  !END!
301 ! X =   1650.052,  -1500.843,   1,   0.000!  !END!
302 ! X =   1652.583,  -1500.389,   1,   0.000!  !END!
303 ! X =   1655.113,  -1499.934,   1,   0.000!  !END!
304 ! X =   1657.644,  -1499.478,   1,   0.000!  !END!
305 ! X =   1660.174,  -1499.022,   1,   0.000!  !END!
306 ! X =   1662.704,  -1498.565,   1,   0.000!  !END!
307 ! X =   1665.234,  -1498.107,   1,   0.000!  !END!
308 ! X =   1667.764,  -1497.649,   1,   0.000!  !END!
309 ! X =   1670.294,  -1497.189,   1,   0.000!  !END!
310 ! X =   1672.823,  -1496.730,   1,   0.000!  !END!
311 ! X =   1675.353,  -1496.269,   1,   0.000!  !END!
312 ! X =   1677.882,  -1495.808,   1,   0.000!  !END!
313 ! X =   1680.411,  -1495.346,   0,   0.000!  !END!
314 ! X =   1682.940,  -1494.883,   0,   0.000!  !END!
315 ! X =   1685.469,  -1494.420,   1,   0.000!  !END!
316 ! X =   1687.998,  -1493.956,   1,   0.000!  !END!
317 ! X =   1690.527,  -1493.491,   0,   0.000!  !END!
318 ! X =   1693.055,  -1493.026,   0,   0.000!  !END!
319 ! X =   1616.652,  -1503.886,   0,   0.000!  !END!
320 ! X =   1619.183,  -1503.441,   0,   0.000!  !END!
321 ! X =   1621.715,  -1502.995,   1,   0.000!  !END!
322 ! X =   1624.246,  -1502.549,   1,   0.000!  !END!
323 ! X =   1626.777,  -1502.102,   1,   0.000!  !END!
324 ! X =   1629.308,  -1501.654,   1,   0.000!  !END!
325 ! X =   1631.838,  -1501.205,   0,   0.000!  !END!
326 ! X =   1634.369,  -1500.756,   1,   0.000!  !END!
327 ! X =   1636.900,  -1500.306,   1,   0.000!  !END!
328 ! X =   1639.430,  -1499.855,   0,   0.000!  !END!
329 ! X =   1641.960,  -1499.404,   0,   0.000!  !END!
330 ! X =   1644.491,  -1498.952,   0,   0.000!  !END!
331 ! X =   1647.021,  -1498.499,   1,   0.000!  !END!
332 ! X =   1649.551,  -1498.046,   1,   0.000!  !END!
333 ! X =   1652.080,  -1497.592,   1,   0.000!  !END!
334 ! X =   1654.610,  -1497.137,   1,   0.000!  !END!
335 ! X =   1657.140,  -1496.681,   1,   0.000!  !END!
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336 ! X =    1659.669,  -1496.225,     1,     0.000!   !END!
337 ! X =    1662.199,  -1495.768,     1,     0.000!   !END!
338 ! X =    1664.728,  -1495.310,     1,     0.000!   !END!
339 ! X =    1667.257,  -1494.852,     1,     0.000!   !END!
340 ! X =    1669.786,  -1494.393,     1,     0.000!   !END!
341 ! X =    1672.315,  -1493.933,     1,     0.000!   !END!
342 ! X =    1674.843,  -1493.473,     1,     0.000!   !END!
343 ! X =    1677.372,  -1493.012,     1,     0.000!   !END!
344 ! X =    1679.900,  -1492.550,     1,     0.000!   !END!
345 ! X =    1682.428,  -1492.088,     1,     0.000!   !END!
346 ! X =    1684.957,  -1491.624,     1,     0.000!   !END!
347 ! X =    1687.485,  -1491.161,     1,     0.000!   !END!
348 ! X =    1690.013,  -1490.696,     1,     0.000!   !END!
349 ! X =    1692.540,  -1490.231,     1,     0.000!   !END!
350 ! X =    1618.691,  -1500.642,     0,     0.000!   !END!
351 ! X =    1621.221,  -1500.197,     1,     0.000!   !END!
352 ! X =    1623.752,  -1499.750,     1,     0.000!   !END!
353 ! X =    1626.282,  -1499.303,     1,     0.000!   !END!
354 ! X =    1628.812,  -1498.856,     1,     0.000!   !END!
355 ! X =    1631.342,  -1498.407,     0,     0.000!   !END!
356 ! X =    1633.872,  -1497.958,     0,     0.000!   !END!
357 ! X =    1636.402,  -1497.508,     1,     0.000!   !END!
358 ! X =    1638.932,  -1497.058,     1,     0.000!   !END!
359 ! X =    1641.461,  -1496.606,     0,     0.000!   !END!
360 ! X =    1643.990,  -1496.155,     1,     0.000!   !END!
361 ! X =    1646.520,  -1495.702,     1,     0.000!   !END!
362 ! X =    1649.049,  -1495.249,     1,     0.000!   !END!
363 ! X =    1651.578,  -1494.795,     1,     0.000!   !END!
364 ! X =    1654.107,  -1494.340,     1,     0.000!   !END!
365 ! X =    1656.636,  -1493.885,     1,     0.000!   !END!
366 ! X =    1659.164,  -1493.428,     1,     0.000!   !END!
367 ! X =    1661.693,  -1492.972,     1,     0.000!   !END!
368 ! X =    1664.221,  -1492.514,     1,     0.000!   !END!
369 ! X =    1666.750,  -1492.056,     1,     0.000!   !END!
370 ! X =    1669.278,  -1491.597,     1,     0.000!   !END!
371 ! X =    1671.806,  -1491.138,     1,     0.000!   !END!
372 ! X =    1674.334,  -1490.677,     1,     0.000!   !END!
373 ! X =    1676.862,  -1490.216,     1,     0.000!   !END!
374 ! X =    1679.389,  -1489.755,     1,     0.000!   !END!
375 ! X =    1681.917,  -1489.292,     1,     0.000!   !END!
376 ! X =    1684.444,  -1488.829,     1,     0.000!   !END!
377 ! X =    1686.971,  -1488.366,     1,     0.000!   !END!
378 ! X =    1689.499,  -1487.901,     1,     0.000!   !END!
379 ! X =    1692.026,  -1487.436,     1,     0.000!   !END!
380 ! X =    1618.198,  -1497.844,     0,     0.000!   !END!
381 ! X =    1620.728,  -1497.398,     1,     0.000!   !END!
382 ! X =    1623.258,  -1496.952,     1,     0.000!   !END!
383 ! X =    1625.787,  -1496.505,     1,     0.000!   !END!
384 ! X =    1628.317,  -1496.058,     1,     0.000!   !END!
385 ! X =    1630.846,  -1495.609,     1,     0.000!   !END!
386 ! X =    1633.375,  -1495.160,     0,     0.000!   !END!
387 ! X =    1635.904,  -1494.711,     0,     0.000!   !END!
388 ! X =    1638.433,  -1494.260,     0,     0.000!   !END!
389 ! X =    1640.962,  -1493.809,     1,     0.000!   !END!
390 ! X =    1643.490,  -1493.357,     1,     0.000!   !END!
391 ! X =    1646.019,  -1492.905,     1,     0.000!   !END!
392 ! X =    1648.547,  -1492.452,     1,     0.000!   !END!
393 ! X =    1651.076,  -1491.998,     1,     0.000!   !END!
394 ! X =    1653.604,  -1491.543,     1,     0.000!   !END!
395 ! X =    1656.132,  -1491.088,     1,     0.000!   !END!
396 ! X =    1658.660,  -1490.632,     1,     0.000!   !END!
397 ! X =    1661.187,  -1490.176,     1,     0.000!   !END!
398 ! X =    1663.715,  -1489.718,     1,     0.000!   !END!
399 ! X =    1666.243,  -1489.260,     1,     0.000!   !END!
400 ! X =    1668.770,  -1488.801,     1,     0.000!   !END!
401 ! X =    1671.297,  -1488.342,     1,     0.000!   !END!
402 ! X =    1673.824,  -1487.882,     1,     0.000!   !END!
403 ! X =    1676.351,  -1487.421,     1,     0.000!   !END!
404 ! X =    1617.706,  -1495.046,     0,     0.000!   !END!
405 ! X =    1620.235,  -1494.600,     1,     0.000!   !END!
406 ! X =    1622.764,  -1494.154,     1,     0.000!   !END!
407 ! X =    1625.293,  -1493.707,     1,     0.000!   !END!
408 ! X =    1627.821,  -1493.260,     0,     0.000!   !END!
409 ! X =    1630.350,  -1492.812,     1,     0.000!   !END!
410 ! X =    1632.878,  -1492.363,     0,     0.000!   !END!
411 ! X =    1635.406,  -1491.913,     1,     0.000!   !END!
412 ! X =    1637.934,  -1491.463,     1,     0.000!   !END!
413 ! X =    1640.462,  -1491.012,     1,     0.000!   !END!
414 ! X =    1642.990,  -1490.561,     1,     0.000!   !END!
415 ! X =    1645.518,  -1490.108,     1,     0.000!   !END!
416 ! X =    1648.046,  -1489.655,     1,     0.000!   !END!
417 ! X =    1650.573,  -1489.202,     1,     0.000!   !END!
418 ! X =    1653.101,  -1488.747,     1,     0.000!   !END!
419 ! X =    1655.628,  -1488.292,     1,     0.000!   !END!
420 ! X =    1658.155,  -1487.836,     1,     0.000!   !END!
421 ! X =    1660.682,  -1487.380,     1,     0.000!   !END!
422 ! X =    1663.209,  -1486.922,     1,     0.000!   !END!
423 ! X =    1665.736,  -1486.465,     1,     0.000!   !END!
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424 ! X =  1668.262, -1486.006,  1,  0.000!  !END!
425 ! X =  1670.789, -1485.547,  1,  0.000!  !END!
426 ! X =  1673.315, -1485.087,  1,  0.000!  !END!
427 ! X =  1675.841, -1484.626,  1,  0.000!  !END!
428 ! X =  1617.214, -1492.248,  0,  0.000!  !END!
429 ! X =  1619.742, -1491.803,  0,  0.000!  !END!
430 ! X =  1622.270, -1491.357,  0,  0.000!  !END!
431 ! X =  1624.798, -1490.910,  1,  0.000!  !END!
432 ! X =  1627.326, -1490.463,  1,  0.000!  !END!
433 ! X =  1629.853, -1490.015,  1,  0.000!  !END!
434 ! X =  1632.381, -1489.566,  1,  0.000!  !END!
435 ! X =  1634.909, -1489.116,  1,  0.000!  !END!
436 ! X =  1637.436, -1488.666,  1,  0.000!  !END!
437 ! X =  1639.963, -1488.216,  1,  0.000!  !END!
438 ! X =  1642.490, -1487.764,  1,  0.000!  !END!
439 ! X =  1645.017, -1487.312,  1,  0.000!  !END!
440 ! X =  1647.544, -1486.859,  1,  0.000!  !END!
441 ! X =  1650.071, -1486.405,  1,  0.000!  !END!
442 ! X =  1652.597, -1485.951,  1,  0.000!  !END!
443 ! X =  1655.124, -1485.496,  1,  0.000!  !END!
444 ! X =  1657.650, -1485.040,  1,  0.000!  !END!
445 ! X =  1660.177, -1484.584,  1,  0.000!  !END!
446 ! X =  1662.703, -1484.127,  1,  0.000!  !END!
447 ! X =  1665.229, -1483.669,  1,  0.000!  !END!
448 ! X =  1667.755, -1483.211,  1,  0.000!  !END!
449 ! X =  1670.280, -1482.752,  1,  0.000!  !END!
450 ! X =  1672.806, -1482.292,  1,  0.000!  !END!
451 ! X =  1675.331, -1481.831,  1,  0.000!  !END!
452 ! X =  1616.721, -1489.450,  0,  0.000!  !END!
453 ! X =  1619.249, -1489.005,  0,  0.000!  !END!
454 ! X =  1621.776, -1488.559,  0,  0.000!  !END!
455 ! X =  1624.303, -1488.113,  1,  0.000!  !END!
456 ! X =  1626.830, -1487.666,  1,  0.000!  !END!
457 ! X =  1629.357, -1487.218,  1,  0.000!  !END!
458 ! X =  1631.884, -1486.769,  1,  0.000!  !END!
459 ! X =  1634.411, -1486.320,  1,  0.000!  !END!
460 ! X =  1636.937, -1485.870,  1,  0.000!  !END!
461 ! X =  1639.464, -1485.419,  1,  0.000!  !END!
462 ! X =  1641.990, -1484.968,  1,  0.000!  !END!
463 ! X =  1644.516, -1484.516,  1,  0.000!  !END!
464 ! X =  1647.043, -1484.063,  1,  0.000!  !END!
465 ! X =  1649.569, -1483.610,  1,  0.000!  !END!
466 ! X =  1652.094, -1483.155,  1,  0.000!  !END!
467 ! X =  1654.620, -1482.701,  1,  0.000!  !END!
468 ! X =  1657.146, -1482.245,  1,  0.000!  !END!
469 ! X =  1659.671, -1481.789,  1,  0.000!  !END!
470 ! X =  1662.197, -1481.332,  1,  0.000!  !END!
471 ! X =  1664.722, -1480.874,  1,  0.000!  !END!
472 ! X =  1667.247, -1480.416,  1,  0.000!  !END!
473 ! X =  1669.772, -1479.957,  1,  0.000!  !END!
474 ! X =  1672.297, -1479.497,  1,  0.000!  !END!
475 ! X =  1674.821, -1479.037,  1,  0.000!  !END!
476 ! X =  1616.229, -1486.653,  0,  0.000!  !END!
477 ! X =  1618.756, -1486.208,  0,  0.000!  !END!
478 ! X =  1621.282, -1485.762,  1,  0.000!  !END!
479 ! X =  1623.809, -1485.316,  1,  0.000!  !END!
480 ! X =  1626.335, -1484.869,  1,  0.000!  !END!
481 ! X =  1628.861, -1484.421,  1,  0.000!  !END!
482 ! X =  1631.387, -1483.973,  1,  0.000!  !END!
483 ! X =  1633.913, -1483.523,  1,  0.000!  !END!
484 ! X =  1636.439, -1483.074,  1,  0.000!  !END!
485 ! X =  1638.965, -1482.623,  1,  0.000!  !END!
486 ! X =  1641.490, -1482.172,  1,  0.000!  !END!
487 ! X =  1644.016, -1481.720,  1,  0.000!  !END!
488 ! X =  1646.541, -1481.267,  1,  0.000!  !END!
489 ! X =  1649.066, -1480.814,  1,  0.000!  !END!
490 ! X =  1651.591, -1480.360,  1,  0.000!  !END!
491 ! X =  1654.116, -1479.905,  1,  0.000!  !END!
492 ! X =  1656.641, -1479.450,  1,  0.000!  !END!
493 ! X =  1659.166, -1478.994,  1,  0.000!  !END!
494 ! X =  1661.690, -1478.537,  1,  0.000!  !END!
495 ! X =  1664.215, -1478.080,  1,  0.000!  !END!
496 ! X =  1666.739, -1477.621,  1,  0.000!  !END!
497 ! X =  1669.263, -1477.162,  1,  0.000!  !END!
498 ! X =  1671.787, -1476.703,  1,  0.000!  !END!
499 ! X =  1674.311, -1476.243,  1,  0.000!  !END!
500 ! X =  1615.737, -1483.856,  0,  0.000!  !END!
501 ! X =  1618.263, -1483.411,  1,  0.000!  !END!
502 ! X =  1620.789, -1482.965,  1,  0.000!  !END!
503 ! X =  1623.314, -1482.519,  1,  0.000!  !END!
504 ! X =  1625.840, -1482.072,  1,  0.000!  !END!
505 ! X =  1628.365, -1481.625,  1,  0.000!  !END!
506 ! X =  1630.890, -1481.176,  1,  0.000!  !END!
507 ! X =  1633.416, -1480.727,  1,  0.000!  !END!
508 ! X =  1635.941, -1480.278,  1,  0.000!  !END!
509 ! X =  1638.466, -1479.827,  1,  0.000!  !END!
510 ! X =  1640.990, -1479.376,  1,  0.000!  !END!
511 ! X =  1643.515, -1478.924,  1,  0.000!  !END!
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512 ! X =    1646.040,  -1478.472,     1,      0.000!   !END!
513 ! X =    1648.564,  -1478.019,     1,      0.000!   !END!
514 ! X =    1651.088,  -1477.565,     1,      0.000!   !END!
515 ! X =    1653.613,  -1477.110,     1,      0.000!   !END!
516 ! X =    1656.137,  -1476.655,     1,      0.000!   !END!
517 ! X =    1658.661,  -1476.199,     1,      0.000!   !END!
518 ! X =    1661.184,  -1475.742,     1,      0.000!   !END!
519 ! X =    1663.708,  -1475.285,     1,      0.000!   !END!
520 ! X =    1666.232,  -1474.827,     1,      0.000!   !END!
521 ! X =    1668.755,  -1474.368,     1,      0.000!   !END!
522 ! X =    1671.278,  -1473.909,     1,      0.000!   !END!
523 ! X =    1673.802,  -1473.449,     1,      0.000!   !END!
524 ! X =    1612.719,  -1481.503,     0,      0.000!   !END!
525 ! X =    1615.245,  -1481.059,     0,      0.000!   !END!
526 ! X =    1617.770,  -1480.614,     1,      0.000!   !END!
527 ! X =    1620.295,  -1480.169,     1,      0.000!   !END!
528 ! X =    1622.820,  -1479.723,     1,      0.000!   !END!
529 ! X =    1625.345,  -1479.276,     1,      0.000!   !END!
530 ! X =    1627.869,  -1478.828,     1,      0.000!   !END!
531 ! X =    1630.394,  -1478.380,     1,      0.000!   !END!
532 ! X =    1632.918,  -1477.931,     1,      0.000!   !END!
533 ! X =    1635.442,  -1477.482,     1,      0.000!   !END!
534 ! X =    1637.967,  -1477.032,     1,      0.000!   !END!
535 ! X =    1640.491,  -1476.581,     1,      0.000!   !END!
536 ! X =    1643.015,  -1476.129,     1,      0.000!   !END!
537 ! X =    1645.538,  -1475.677,     1,      0.000!   !END!
538 ! X =    1648.062,  -1475.224,     1,      0.000!   !END!
539 ! X =    1650.586,  -1474.770,     1,      0.000!   !END!
540 ! X =    1653.109,  -1474.315,     1,      0.000!   !END!
541 ! X =    1655.632,  -1473.860,     1,      0.000!   !END!
542 ! X =    1658.155,  -1473.405,     1,      0.000!   !END!
543 ! X =    1660.678,  -1472.948,     1,      0.000!   !END!
544 ! X =    1663.201,  -1472.491,     1,      0.000!   !END!
545 ! X =    1665.724,  -1472.033,     1,      0.000!   !END!
546 ! X =    1668.247,  -1471.574,     1,      0.000!   !END!
547 ! X =    1670.769,  -1471.115,     1,      0.000!   !END!
548 ! X =    1673.292,  -1470.655,     1,      0.000!   !END!
549 ! X =    1612.228,  -1478.706,     0,      0.000!   !END!
550 ! X =    1614.753,  -1478.262,     1,      0.000!   !END!
551 ! X =    1617.277,  -1477.818,     1,      0.000!   !END!
552 ! X =    1619.801,  -1477.372,     1,      0.000!   !END!
553 ! X =    1622.325,  -1476.927,     1,      0.000!   !END!
554 ! X =    1624.849,  -1476.480,     1,      0.000!   !END!
555 ! X =    1627.373,  -1476.033,     1,      0.000!   !END!
556 ! X =    1629.897,  -1475.585,     1,      0.000!   !END!
557 ! X =    1632.421,  -1475.136,     1,      0.000!   !END!
558 ! X =    1634.944,  -1474.686,     1,      0.000!   !END!
559 ! X =    1637.468,  -1474.236,     1,      0.000!   !END!
560 ! X =    1639.991,  -1473.785,     1,      0.000!   !END!
561 ! X =    1642.514,  -1473.334,     1,      0.000!   !END!
562 ! X =    1645.037,  -1472.882,     1,      0.000!   !END!
563 ! X =    1647.560,  -1472.429,     1,      0.000!   !END!
564 ! X =    1650.083,  -1471.975,     1,      0.000!   !END!
565 ! X =    1652.605,  -1471.521,     1,      0.000!   !END!
566 ! X =    1655.128,  -1471.066,     1,      0.000!   !END!
567 ! X =    1657.650,  -1470.610,     1,      0.000!   !END!
568 ! X =    1660.172,  -1470.154,     1,      0.000!   !END!
569 ! X =    1662.695,  -1469.697,     1,      0.000!   !END!
570 ! X =    1665.217,  -1469.239,     1,      0.000!   !END!
571 ! X =    1667.739,  -1468.781,     1,      0.000!   !END!
572 ! X =    1670.260,  -1468.322,     1,      0.000!   !END!
573 ! X =    1672.782,  -1467.862,     1,      0.000!   !END!
574 ! X =    1609.213,  -1476.353,     0,      0.000!   !END!
575 ! X =    1611.737,  -1475.910,     1,      0.000!   !END!
576 ! X =    1614.261,  -1475.466,     1,      0.000!   !END!
577 ! X =    1616.784,  -1475.022,     1,      0.000!   !END!
578 ! X =    1619.308,  -1474.576,     1,      0.000!   !END!
579 ! X =    1621.831,  -1474.131,     1,      0.000!   !END!
580 ! X =    1624.354,  -1473.684,     1,      0.000!   !END!
581 ! X =    1626.877,  -1473.237,     1,      0.000!   !END!
582 ! X =    1629.400,  -1472.789,     1,      0.000!   !END!
583 ! X =    1631.923,  -1472.340,     1,      0.000!   !END!
584 ! X =    1634.446,  -1471.891,     1,      0.000!   !END!
585 ! X =    1636.969,  -1471.441,     1,      0.000!   !END!
586 ! X =    1639.491,  -1470.991,     1,      0.000!   !END!
587 ! X =    1642.013,  -1470.539,     1,      0.000!   !END!
588 ! X =    1644.536,  -1470.087,     1,      0.000!   !END!
589 ! X =    1647.058,  -1469.634,     1,      0.000!   !END!
590 ! X =    1649.580,  -1469.181,     1,      0.000!   !END!
591 ! X =    1652.102,  -1468.727,     1,      0.000!   !END!
592 ! X =    1654.623,  -1468.272,     1,      0.000!   !END!
593 ! X =    1657.145,  -1467.816,     1,      0.000!   !END!
594 ! X =    1659.667,  -1467.360,     1,      0.000!   !END!
595 ! X =    1662.188,  -1466.903,     1,      0.000!   !END!
596 ! X =    1664.709,  -1466.446,     1,      0.000!   !END!
597 ! X =    1667.230,  -1465.987,     1,      0.000!   !END!
598 ! X =    1669.751,  -1465.528,     1,      0.000!   !END!
599 ! X =    1672.272,  -1465.069,     1,      0.000!   !END!
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600 ! X =    1674.793,  -1464.608,       1,       0.000!   !END!
601 ! X =    1608.723,  -1473.557,       0,       0.000!   !END!
602 ! X =    1611.246,  -1473.114,       1,       0.000!   !END!
603 ! X =    1613.769,  -1472.670,       1,       0.000!   !END!
604 ! X =    1616.291,  -1472.226,       1,       0.000!   !END!
605 ! X =    1618.814,  -1471.781,       1,       0.000!   !END!
606 ! X =    1621.337,  -1471.335,       1,       0.000!   !END!
607 ! X =    1623.859,  -1470.889,       1,       0.000!   !END!
608 ! X =    1626.382,  -1470.442,       1,       0.000!   !END!
609 ! X =    1628.904,  -1469.994,       1,       0.000!   !END!
610 ! X =    1631.426,  -1469.545,       1,       0.000!   !END!
611 ! X =    1633.948,  -1469.096,       1,       0.000!   !END!
612 ! X =    1636.470,  -1468.646,       1,       0.000!   !END!
613 ! X =    1638.991,  -1468.196,       1,       0.000!   !END!
614 ! X =    1641.513,  -1467.745,       1,       0.000!   !END!
615 ! X =    1644.034,  -1467.293,       1,       0.000!   !END!
616 ! X =    1646.556,  -1466.840,       1,       0.000!   !END!
617 ! X =    1649.077,  -1466.387,       1,       0.000!   !END!
618 ! X =    1651.598,  -1465.933,       1,       0.000!   !END!
619 ! X =    1654.119,  -1465.478,       1,       0.000!   !END!
620 ! X =    1656.640,  -1465.023,       1,       0.000!   !END!
621 ! X =    1659.161,  -1464.567,       1,       0.000!   !END!
622 ! X =    1661.681,  -1464.110,       1,       0.000!   !END!
623 ! X =    1664.202,  -1463.652,       1,       0.000!   !END!
624 ! X =    1666.722,  -1463.194,       1,       0.000!   !END!
625 ! X =    1669.242,  -1462.735,       1,       0.000!   !END!
626 ! X =    1671.763,  -1462.276,       1,       0.000!   !END!
627 ! X =    1674.282,  -1461.816,       1,       0.000!   !END!
628 ! X =    1605.710,  -1471.203,       0,       0.000!   !END!
629 ! X =    1608.232,  -1470.761,       0,       0.000!   !END!
630 ! X =    1610.754,  -1470.318,       0,       0.000!   !END!
631 ! X =    1613.277,  -1469.874,       1,       0.000!   !END!
632 ! X =    1615.799,  -1469.430,       1,       0.000!   !END!
633 ! X =    1618.321,  -1468.985,       1,       0.000!   !END!
634 ! X =    1620.842,  -1468.540,       1,       0.000!   !END!
635 ! X =    1623.364,  -1468.093,       0,       0.000!   !END!
636 ! X =    1625.886,  -1467.647,       1,       0.000!   !END!
637 ! X =    1628.407,  -1467.199,       1,       0.000!   !END!
638 ! X =    1630.928,  -1466.751,       1,       0.000!   !END!
639 ! X =    1633.450,  -1466.302,       1,       0.000!   !END!
640 ! X =    1635.971,  -1465.852,       1,       0.000!   !END!
641 ! X =    1638.492,  -1465.402,       1,       0.000!   !END!
642 ! X =    1641.013,  -1464.950,       1,       0.000!   !END!
643 ! X =    1643.533,  -1464.499,       1,       0.000!   !END!
644 ! X =    1646.054,  -1464.046,       1,       0.000!   !END!
645 ! X =    1648.574,  -1463.593,       1,       0.000!   !END!
646 ! X =    1651.095,  -1463.139,       1,       0.000!   !END!
647 ! X =    1653.615,  -1462.685,       1,       0.000!   !END!
648 ! X =    1656.135,  -1462.229,       1,       0.000!   !END!
649 ! X =    1658.655,  -1461.773,       1,       0.000!   !END!
650 ! X =    1661.175,  -1461.317,       1,       0.000!   !END!
651 ! X =    1663.695,  -1460.859,       1,       0.000!   !END!
652 ! X =    1666.214,  -1460.401,       1,       0.000!   !END!
653 ! X =    1668.734,  -1459.943,       1,       0.000!   !END!
654 ! X =    1671.253,  -1459.483,       1,       0.000!   !END!
655 ! X =    1673.772,  -1459.023,       1,       0.000!   !END!
656 ! X =    1602.698,  -1468.848,       0,       0.000!   !END!
657 ! X =    1605.220,  -1468.407,       0,       0.000!   !END!
658 ! X =    1607.742,  -1467.965,       1,       0.000!   !END!
659 ! X =    1610.263,  -1467.522,       1,       0.000!   !END!
660 ! X =    1612.785,  -1467.079,       1,       0.000!   !END!
661 ! X =    1615.306,  -1466.635,       1,       0.000!   !END!
662 ! X =    1617.827,  -1466.190,       0,       0.000!   !END!
663 ! X =    1620.348,  -1465.745,       1,       0.000!   !END!
664 ! X =    1622.869,  -1465.299,       1,       0.000!   !END!
665 ! X =    1625.390,  -1464.852,       1,       0.000!   !END!
666 ! X =    1627.911,  -1464.404,       1,       0.000!   !END!
667 ! X =    1630.431,  -1463.956,       1,       0.000!   !END!
668 ! X =    1632.952,  -1463.507,       1,       0.000!   !END!
669 ! X =    1635.472,  -1463.058,       1,       0.000!   !END!
670 ! X =    1637.992,  -1462.607,       1,       0.000!   !END!
671 ! X =    1640.512,  -1462.156,       1,       0.000!   !END!
672 ! X =    1643.032,  -1461.705,       1,       0.000!   !END!
673 ! X =    1645.552,  -1461.252,       1,       0.000!   !END!
674 ! X =    1648.072,  -1460.799,       1,       0.000!   !END!
675 ! X =    1650.591,  -1460.346,       1,       0.000!   !END!
676 ! X =    1653.111,  -1459.891,       1,       0.000!   !END!
677 ! X =    1655.630,  -1459.436,       1,       0.000!   !END!
678 ! X =    1658.149,  -1458.980,       1,       0.000!   !END!
679 ! X =    1660.668,  -1458.524,       1,       0.000!   !END!
680 ! X =    1663.187,  -1458.067,       1,       0.000!   !END!
681 ! X =    1665.706,  -1457.609,       1,       0.000!   !END!
682 ! X =    1668.225,  -1457.150,       1,       0.000!   !END!
683 ! X =    1670.743,  -1456.691,       1,       0.000!   !END!
684 ! X =    1673.262,  -1456.231,       1,       0.000!   !END!
685 ! X =    1602.209,  -1466.052,       0,       0.000!   !END!
686 ! X =    1604.731,  -1465.611,       0,       0.000!   !END!
687 ! X =    1607.251,  -1465.169,       1,       0.000!   !END!
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688 ! X =    1609.772,  -1464.727,      1,      0.000!   !END!
689 ! X =    1612.293,  -1464.284,      1,      0.000!   !END!
690 ! X =    1614.813,  -1463.840,      1,      0.000!   !END!
691 ! X =    1617.334,  -1463.395,      1,      0.000!   !END!
692 ! X =    1619.854,  -1462.950,      1,      0.000!   !END!
693 ! X =    1622.374,  -1462.504,      1,      0.000!   !END!
694 ! X =    1624.894,  -1462.057,      1,      0.000!   !END!
695 ! X =    1627.414,  -1461.610,      1,      0.000!   !END!
696 ! X =    1629.934,  -1461.162,      1,      0.000!   !END!
697 ! X =    1632.454,  -1460.713,      1,      0.000!   !END!
698 ! X =    1634.973,  -1460.264,      1,      0.000!   !END!
699 ! X =    1637.493,  -1459.814,      1,      0.000!   !END!
700 ! X =    1640.012,  -1459.363,      1,      0.000!   !END!
701 ! X =    1642.531,  -1458.911,      1,      0.000!   !END!
702 ! X =    1645.050,  -1458.459,      1,      0.000!   !END!
703 ! X =    1647.569,  -1458.006,      1,      0.000!   !END!
704 ! X =    1650.088,  -1457.553,      1,      0.000!   !END!
705 ! X =    1652.607,  -1457.098,      1,      0.000!   !END!
706 ! X =    1655.125,  -1456.643,      1,      0.000!   !END!
707 ! X =    1657.644,  -1456.188,      1,      0.000!   !END!
708 ! X =    1660.162,  -1455.731,      1,      0.000!   !END!
709 ! X =    1662.680,  -1455.274,      1,      0.000!   !END!
710 ! X =    1665.198,  -1454.816,      1,      0.000!   !END!
711 ! X =    1667.716,  -1454.358,      1,      0.000!   !END!
712 ! X =    1670.234,  -1453.899,      1,      0.000!   !END!
713 ! X =    1672.751,  -1453.439,      1,      0.000!   !END!
714 ! X =    1675.269,  -1452.979,      1,      0.000!   !END!
715 ! X =    1599.200,  -1463.697,      0,      0.000!   !END!
716 ! X =    1601.721,  -1463.257,      0,      0.000!   !END!
717 ! X =    1604.241,  -1462.816,      0,      0.000!   !END!
718 ! X =    1606.761,  -1462.374,      1,      0.000!   !END!
719 ! X =    1609.281,  -1461.932,      1,      0.000!   !END!
720 ! X =    1611.801,  -1461.489,      1,      0.000!   !END!
721 ! X =    1614.321,  -1461.045,      1,      0.000!   !END!
722 ! X =    1616.840,  -1460.601,      1,      0.000!   !END!
723 ! X =    1619.360,  -1460.155,      1,      0.000!   !END!
724 ! X =    1621.879,  -1459.710,      1,      0.000!   !END!
725 ! X =    1644.548,  -1455.666,      1,      0.000!   !END!
726 ! X =    1647.066,  -1455.213,      1,      0.000!   !END!
727 ! X =    1649.585,  -1454.760,      1,      0.000!   !END!
728 ! X =    1652.102,  -1454.306,      1,      0.000!   !END!
729 ! X =    1654.620,  -1453.851,      1,      0.000!   !END!
730 ! X =    1657.138,  -1453.395,      1,      0.000!   !END!
731 ! X =    1659.655,  -1452.939,      1,      0.000!   !END!
732 ! X =    1662.173,  -1452.482,      1,      0.000!   !END!
733 ! X =    1664.690,  -1452.024,      1,      0.000!   !END!
734 ! X =    1667.207,  -1451.566,      1,      0.000!   !END!
735 ! X =    1669.724,  -1451.107,      1,      0.000!   !END!
736 ! X =    1672.241,  -1450.647,      1,      0.000!   !END!
737 ! X =    1596.193,  -1461.341,      0,      0.000!   !END!
738 ! X =    1598.712,  -1460.902,      0,      0.000!   !END!
739 ! X =    1601.232,  -1460.462,      1,      0.000!   !END!
740 ! X =    1603.752,  -1460.021,      1,      0.000!   !END!
741 ! X =    1606.271,  -1459.579,      1,      0.000!   !END!
742 ! X =    1608.790,  -1459.137,      1,      0.000!   !END!
743 ! X =    1611.309,  -1458.694,      1,      0.000!   !END!
744 ! X =    1613.828,  -1458.250,      1,      0.000!   !END!
745 ! X =    1616.347,  -1457.806,      1,      0.000!   !END!
746 ! X =    1618.866,  -1457.361,      1,      0.000!   !END!
747 ! X =    1621.384,  -1456.915,      1,      0.000!   !END!
748 ! X =    1644.047,  -1452.873,      1,      0.000!   !END!
749 ! X =    1646.564,  -1452.420,      1,      0.000!   !END!
750 ! X =    1649.081,  -1451.967,      1,      0.000!   !END!
751 ! X =    1651.598,  -1451.513,      1,      0.000!   !END!
752 ! X =    1654.115,  -1451.058,      1,      0.000!   !END!
753 ! X =    1656.632,  -1450.603,      1,      0.000!   !END!
754 ! X =    1659.149,  -1450.147,      1,      0.000!   !END!
755 ! X =    1661.666,  -1449.690,      1,      0.000!   !END!
756 ! X =    1664.182,  -1449.233,      1,      0.000!   !END!
757 ! X =    1666.699,  -1448.775,      1,      0.000!   !END!
758 ! X =    1669.215,  -1448.316,      1,      0.000!   !END!
759 ! X =    1671.731,  -1447.856,      1,      0.000!   !END!
760 ! X =    1674.247,  -1447.396,      1,      0.000!   !END!
761 ! X =    1676.763,  -1446.935,      1,      0.000!   !END!
762 ! X =    1593.187,  -1458.985,      0,      0.000!   !END!
763 ! X =    1595.706,  -1458.546,      0,      0.000!   !END!
764 ! X =    1598.225,  -1458.107,      0,      0.000!   !END!
765 ! X =    1600.743,  -1457.667,      1,      0.000!   !END!
766 ! X =    1603.262,  -1457.226,      1,      0.000!   !END!
767 ! X =    1605.781,  -1456.785,      1,      0.000!   !END!
768 ! X =    1608.299,  -1456.342,      1,      0.000!   !END!
769 ! X =    1610.818,  -1455.900,      1,      0.000!   !END!
770 ! X =    1613.336,  -1455.456,      1,      0.000!   !END!
771 ! X =    1615.854,  -1455.012,      1,      0.000!   !END!
772 ! X =    1618.372,  -1454.567,      1,      0.000!   !END!
773 ! X =    1643.545,  -1450.080,      1,      0.000!   !END!
774 ! X =    1646.061,  -1449.628,      1,      0.000!   !END!
775 ! X =    1648.578,  -1449.175,      1,      0.000!   !END!
```

```
776 ! X =    1651.094,  -1448.721,      1,      0.000!   !END!
777 ! X =    1653.611,  -1448.266,      1,      0.000!   !END!
778 ! X =    1656.127,  -1447.811,      1,      0.000!   !END!
779 ! X =    1658.643,  -1447.355,      1,      0.000!   !END!
780 ! X =    1661.159,  -1446.898,      1,      0.000!   !END!
781 ! X =    1663.674,  -1446.441,      1,      0.000!   !END!
782 ! X =    1666.190,  -1445.983,      1,      0.000!   !END!
783 ! X =    1668.705,  -1445.524,      1,      0.000!   !END!
784 ! X =    1671.221,  -1445.065,      1,      0.000!   !END!
785 ! X =    1673.736,  -1444.605,      1,      0.000!   !END!
786 ! X =    1676.251,  -1444.144,      1,      0.000!   !END!
787 ! X =    1590.182,  -1456.627,      0,      0.000!   !END!
788 ! X =    1592.700,  -1456.190,      0,      0.000!   !END!
789 ! X =    1595.219,  -1455.751,      0,      0.000!   !END!
790 ! X =    1597.737,  -1455.312,      1,      0.000!   !END!
791 ! X =    1600.255,  -1454.872,      1,      0.000!   !END!
792 ! X =    1602.773,  -1454.431,      1,      0.000!   !END!
793 ! X =    1605.291,  -1453.990,      1,      0.000!   !END!
794 ! X =    1607.808,  -1453.548,      1,      0.000!   !END!
795 ! X =    1610.326,  -1453.106,      1,      0.000!   !END!
796 ! X =    1612.843,  -1452.662,      1,      0.000!   !END!
797 ! X =    1615.361,  -1452.218,      1,      0.000!   !END!
798 ! X =    1643.043,  -1447.288,      1,      0.000!   !END!
799 ! X =    1645.559,  -1446.836,      1,      0.000!   !END!
800 ! X =    1648.075,  -1446.383,      1,      0.000!   !END!
801 ! X =    1650.590,  -1445.929,      1,      0.000!   !END!
802 ! X =    1653.106,  -1445.475,      1,      0.000!   !END!
803 ! X =    1655.621,  -1445.019,      1,      0.000!   !END!
804 ! X =    1658.136,  -1444.564,      1,      0.000!   !END!
805 ! X =    1660.652,  -1444.107,      1,      0.000!   !END!
806 ! X =    1663.167,  -1443.650,      1,      0.000!   !END!
807 ! X =    1665.681,  -1443.192,      1,      0.000!   !END!
808 ! X =    1668.196,  -1442.733,      1,      0.000!   !END!
809 ! X =    1670.711,  -1442.274,      1,      0.000!   !END!
810 ! X =    1673.225,  -1441.814,      1,      0.000!   !END!
811 ! X =    1675.740,  -1441.354,      1,      0.000!   !END!
812 ! X =    1587.179,  -1454.269,      0,      0.000!   !END!
813 ! X =    1589.696,  -1453.832,      0,      0.000!   !END!
814 ! X =    1592.214,  -1453.395,      1,      0.000!   !END!
815 ! X =    1594.732,  -1452.956,      1,      0.000!   !END!
816 ! X =    1597.249,  -1452.517,      1,      0.000!   !END!
817 ! X =    1599.766,  -1452.078,      1,      0.000!   !END!
818 ! X =    1602.283,  -1451.637,      1,      0.000!   !END!
819 ! X =    1604.800,  -1451.196,      1,      0.000!   !END!
820 ! X =    1607.317,  -1450.754,      1,      0.000!   !END!
821 ! X =    1609.834,  -1450.312,      1,      0.000!   !END!
822 ! X =    1612.351,  -1449.868,      1,      0.000!   !END!
823 ! X =    1614.867,  -1449.425,      1,      0.000!   !END!
824 ! X =    1642.542,  -1444.496,      1,      0.000!   !END!
825 ! X =    1645.057,  -1444.044,      1,      0.000!   !END!
826 ! X =    1647.572,  -1443.591,      1,      0.000!   !END!
827 ! X =    1650.086,  -1443.137,      1,      0.000!   !END!
828 ! X =    1652.601,  -1442.683,      1,      0.000!   !END!
829 ! X =    1655.116,  -1442.228,      1,      0.000!   !END!
830 ! X =    1657.630,  -1441.772,      1,      0.000!   !END!
831 ! X =    1660.145,  -1441.316,      1,      0.000!   !END!
832 ! X =    1662.659,  -1440.859,      1,      0.000!   !END!
833 ! X =    1665.173,  -1440.401,      1,      0.000!   !END!
834 ! X =    1667.687,  -1439.943,      1,      0.000!   !END!
835 ! X =    1670.201,  -1439.484,      1,      0.000!   !END!
836 ! X =    1672.714,  -1439.024,      1,      0.000!   !END!
837 ! X =    1675.228,  -1438.563,      1,      0.000!   !END!
838 ! X =    1584.177,  -1451.911,      0,      0.000!   !END!
839 ! X =    1586.694,  -1451.475,      0,      0.000!   !END!
840 ! X =    1589.211,  -1451.038,      0,      0.000!   !END!
841 ! X =    1591.728,  -1450.600,      0,      0.000!   !END!
842 ! X =    1594.245,  -1450.162,      1,      0.000!   !END!
843 ! X =    1596.761,  -1449.723,      1,      0.000!   !END!
844 ! X =    1599.278,  -1449.283,      1,      0.000!   !END!
845 ! X =    1601.794,  -1448.843,      1,      0.000!   !END!
846 ! X =    1604.310,  -1448.402,      1,      0.000!   !END!
847 ! X =    1606.827,  -1447.960,      1,      0.000!   !END!
848 ! X =    1609.343,  -1447.518,      1,      0.000!   !END!
849 ! X =    1642.040,  -1441.704,      1,      0.000!   !END!
850 ! X =    1644.554,  -1441.252,      1,      0.000!   !END!
851 ! X =    1647.069,  -1440.799,      1,      0.000!   !END!
852 ! X =    1649.583,  -1440.346,      1,      0.000!   !END!
853 ! X =    1652.097,  -1439.892,      1,      0.000!   !END!
854 ! X =    1654.610,  -1439.437,      1,      0.000!   !END!
855 ! X =    1657.124,  -1438.981,      1,      0.000!   !END!
856 ! X =    1659.638,  -1438.525,      1,      0.000!   !END!
857 ! X =    1662.151,  -1438.068,      1,      0.000!   !END!
858 ! X =    1664.664,  -1437.611,      1,      0.000!   !END!
859 ! X =    1667.178,  -1437.152,      1,      0.000!   !END!
860 ! X =    1669.691,  -1436.693,      1,      0.000!   !END!
861 ! X =    1672.204,  -1436.234,      1,      0.000!   !END!
862 ! X =    1674.716,  -1435.773,      1,      0.000!   !END!
863 ! X =    1581.176,  -1449.551,      0,      0.000!   !END!
```

```
864 ! X =    1583.693,  -1449.116,        0,       0.000!   !END!
865 ! X =    1586.209,  -1448.680,        0,       0.000!   !END!
866 ! X =    1588.726,  -1448.243,        0,       0.000!   !END!
867 ! X =    1591.242,  -1447.806,        1,       0.000!   !END!
868 ! X =    1593.758,  -1447.368,        1,       0.000!   !END!
869 ! X =    1596.274,  -1446.929,        1,       0.000!   !END!
870 ! X =    1598.789,  -1446.490,        1,       0.000!   !END!
871 ! X =    1601.305,  -1446.049,        1,       0.000!   !END!
872 ! X =    1603.820,  -1445.609,        1,       0.000!   !END!
873 ! X =    1575.662,  -1447.625,        0,       0.000!   !END!
874 ! X =    1578.178,  -1447.191,        0,       0.000!   !END!
875 ! X =    1580.693,  -1446.757,        0,       0.000!   !END!
876 ! X =    1583.209,  -1446.322,        0,       0.000!   !END!
877 ! X =    1585.725,  -1445.886,        1,       0.000!   !END!
878 ! X =    1588.240,  -1445.449,        0,       0.000!   !END!
879 ! X =    1590.756,  -1445.012,        0,       0.000!   !END!
880 ! X =    1593.271,  -1444.574,        1,       0.000!   !END!
881 ! X =    1595.786,  -1444.135,        1,       0.000!   !END!
882 ! X =    1598.301,  -1443.696,        1,       0.000!   !END!
883 ! X =    1575.180,  -1444.831,        0,       0.000!   !END!
884 ! X =    1577.695,  -1444.397,        0,       0.000!   !END!
885 ! X =    1580.210,  -1443.963,        0,       0.000!   !END!
886 ! X =    1582.725,  -1443.527,        1,       0.000!   !END!
887 ! X =    1585.240,  -1443.092,        1,       0.000!   !END!
888 ! X =    1587.755,  -1442.655,        0,       0.000!   !END!
889 ! X =    1590.270,  -1442.218,        1,       0.000!   !END!
890 ! X =    1592.784,  -1441.780,        1,       0.000!   !END!
891 ! X =    1595.298,  -1441.342,        1,       0.000!   !END!
892 ! X =    1597.813,  -1440.903,        1,       0.000!   !END!
893 ! X =    1577.213,  -1441.603,        1,       0.000!   !END!
894 ! X =    1579.728,  -1441.169,        1,       0.000!   !END!
895 ! X =    1582.242,  -1440.734,        1,       0.000!   !END!
896 ! X =    1589.784,  -1439.425,        1,       0.000!   !END!
897 ! X =    1592.297,  -1438.987,        1,       0.000!   !END!
898 ! X =    1594.811,  -1438.549,        1,       0.000!   !END!
899 ! X =    1597.324,  -1438.110,        1,       0.000!   !END!
900 ! X =    1579.245,  -1438.375,        1,       0.000!   !END!
901 ! X =    1581.758,  -1437.940,        1,       0.000!   !END!
```

a
Data for each receptor are treated as a separate input subgroup and therefore must end with an input group terminator.

b
Receptor height above ground is optional. If no value is entered, the receptor is placed on the ground.

```
FPL WCEC 3 ON OIL - CALPOST FOR SO2 CONCENTRATION     EPA  9/13/07
901 ENP RECEPTORS
4-km FL DOMAIN, 2001
---------------- Run title (3 lines) ------------------------------------------

                    CALPOST MODEL CONTROL FILE
                    --------------------------

-------------------------------------------------------------------------------

INPUT GROUP: 0 -- Input and Output File Names
--------------

Input Files
-----------

File                          Default File Name
----                          -----------------
Conc/Dep Flux File            MODEL.DAT           ! MODDAT =..\PUFFOIL.CON  !
Relative Humidity File        VISB.DAT            * VISDAT =                *
Background Data File          BACK.DAT            *BACKDAT =  *
Transmissometer or            VSRN.DAT            *VSRDAT =   *
Nephelometer Data File         or
DATSAV Weather Data File       or
Prognostic Weather  File

Output Files
------------

File                          Default File Name
----                          -----------------
List File                     CALPOST.LST         ! PSTLST =PSTSO2O.LST  !

Pathname for Timeseries Files   (blank)           * TSPATH =    *
(activate with exclamation points only if
providing NON-BLANK character string)

Pathname for Plot Files   (blank)                 * PLPATH =    *
(activate with exclamation points only if
 providing NON-BLANK character string)

User Character String (U) to augment default filenames
(activate with exclamation points only if
 providing NON-BLANK character string)

Timeseries          TSERIES_ASPEC_ttHR_CONC_TSUNAM.DAT
Peak Value          PEAKVAL_ASPEC_ttHR_CONC_TSUNAM.DAT

                                                  * TSUNAM =    *

Top Nth Rank Plot   RANK(ALL)_ASPEC_ttHR_CONC_TUNAM.DAT
                or  RANK(ii)_ASPEC_ttHR_CONC_TUNAM.GRD

                                                  * TUNAM =    *

Exceedance Plot      EXCEED_ASPEC_ttHR_CONC_XUNAM.DAT
                 or  EXCEED_ASPEC_ttHR_CONC_XUNAM.GRD

                                                  * XUNAM =    *

Echo Plot
(Specific Days)
           yyyy_Mmm_Ddd_hh00(UTCszzzz)_L00_ASPEC_ttHR_CONC.DAT
     or    yyyy_Mmm_Ddd_hh00(UTCszzzz)_L00_ASPEC_ttHR_CONC.GRD


Visibility Plot      DAILY_VISIB_VUNAM.DAT    ! VUNAM =VTEST    !
(Daily Peak Summary)


Auxiliary Output Files
----------------------

File                          Default File Name
----                          -----------------
Visibility Change             DELVIS.DAT            ! DVISDAT = deciview.dat   !

-------------------------------------------------------------------------------
All file names will be converted to lower case if LCFILES = T
Otherwise, if LCFILES = F, file names will be converted to UPPER CASE
         T = lower case                ! LCFILES = T !
         F = UPPER CASE
NOTE: (1) file/path names can be up to 132 characters in length
NOTE: (2) Filenames for ALL PLOT and TIMESERIES FILES are constructed
          using a template that includes a pathname, user-supplied
          character(s), and context-specific strings, where
```

```
             ASPEC = Species Name
              CONC = CONC Or WFLX Or DFLX Or TFLX
                tt = Averaging Period (e.g. 03)
                ii = Rank (e.g. 02)
                hh = Hour(ending) in LST
             szzzz = LST time zone shift (EST is -0500)
              yyyy = Year(LST)
                mm = Month(LST)
                dd = day of month (LST)
          are determined internally based on selections made below.
          If a path or user-supplied character(s) are supplied, each
          must contain at least 1 non-blank character.

!END!
-------------------------------------------------------------------------------

INPUT GROUP: 1 -- General run control parameters
--------------

     Option to run all periods found
     in the met. file(s)  (METRUN)        Default: 0   ! METRUN =   0  !

         METRUN = 0 - Run period explicitly defined below
         METRUN = 1 - Run all periods in CALPUFF data file(s)

     Starting date:    Year   (ISYR) --    No default   ! ISYR  =  2001   !
     (used only if     Month  (ISMO) --    No default   ! ISMO  =  1   !
      METRUN = 0)      Day    (ISDY) --    No default   ! ISDY  =  1   !
                       Hour   (ISHR) --    No default   ! ISHR  =  1   !

     Number of hours to process (NHRS) -- No default   ! NHRS  =  8760  !

     Process every hour of data?(NREP) -- Default: 1   ! NREP  =  1  !
      (1 = every hour processed,
       2 = every 2nd hour processed,
       5 = every 5th hour processed, etc.)

Species & Concentration/Deposition Information
----------------------------------------------

      Species to process (ASPEC)        -- No default   ! ASPEC = SO2 !
      (ASPEC = VISIB for visibility processing)

      Layer/deposition code (ILAYER)    -- Default: 1   ! ILAYER = 1 !
        '1'  for CALPUFF concentrations,
        '-1' for dry deposition fluxes,
        '-2' for wet deposition fluxes,
        '-3' for wet+dry deposition fluxes.

      Scaling factors of the form:      -- Defaults:    ! A =  0.0     !
            X(new) = X(old) * A + B           A = 0.0   ! B =  0.0     !
         (NOT applied if A = B = 0.0)         B = 0.0

      Add Hourly Background Concentrations/Fluxes?
                                (LBACK)  -- Default: F  ! LBACK =  F !

 Source information
 ------------------

   Option to process source contributions:
          0 =  Process only total reported contributions
          1 =  Sum all individual source contributions and process
          2 =  Run in TRACEBACK mode to identify source
               contributions at a SINGLE receptor
                              (MSOURCE) -- Default: 0   ! MSOURCE =  0  !

 Receptor information
 --------------------

   Gridded receptors processed?    (LG) -- Default: F   ! LG  = F  !
   Discrete receptors processed?   (LD) -- Default: F   ! LD  = T  !
   CTSG Complex terrain receptors processed?
                                  (LCT) -- Default: F   ! LCT = F  !

 --Report results by DISCRETE receptor RING?
   (only used when LD = T)      (LDRING) -- Default: F   ! LDRING = F  !

 --Select range of DISCRETE receptors (only used when LD = T):

   Select ALL DISCRETE receptors by setting NDRECP flag to -1;
                                  OR
   Select SPECIFIC DISCRETE receptors by entering a flag (0,1) for each
      0 = discrete receptor not processed
      1 = discrete receptor processed
   using repeated value notation to select blocks of receptors:
      23*1, 15*0, 12*1
   Flag for all receptors after the last one assigned is set to 0
   (NDRECP) -- Default: -1
```

```
  ! NDRECP = -1 !


--Select range of GRIDDED receptors (only used when LG = T):

       X index of LL corner (IBGRID) -- Default: -1      ! IBGRID = -1  !
           (-1 OR 1 <= IBGRID <= NX)

       Y index of LL corner (JBGRID) -- Default: -1      ! JBGRID = -1  !
           (-1 OR 1 <= JBGRID <= NY)

       X index of UR corner (IEGRID) -- Default: -1      ! IEGRID = -1  !
           (-1 OR 1 <= IEGRID <= NX)

       Y index of UR corner (JEGRID) -- Default: -1      ! JEGRID = -1  !
           (-1 OR 1 <= JEGRID <= NY)

  Note: Entire grid is processed if IBGRID=JBGRID=IEGRID=JEGRID=-1


--Specific gridded receptors can also be excluded from CALPOST
  processing by filling a processing grid array with 0s and 1s.  If the
  processing flag for receptor index (i,j) is 1 (ON), that receptor
  will be processed if it lies within the range delineated by IBGRID,
  JBGRID,IEGRID,JEGRID and if LG=T. If it is 0 (OFF), it will not be
  processed in the run.  By default, all array values are set to 1 (ON).

  Number of gridded receptor rows provided in Subgroup (1a) to
  identify specific gridded receptors to process
                          (NGONOFF) -- Default: 0      ! NGONOFF =  0  !

!END!


--------------
Subgroup (1a) -- Specific gridded receptors included/excluded
--------------

    Specific gridded receptors are excluded from CALPOST processing
    by filling a processing grid array with 0s and 1s.  A total of
    NGONOFF lines are read here.  Each line corresponds to one 'row'
    in the sampling grid, starting with the NORTHERNMOST row that
    contains receptors that you wish to exclude, and finishing with
    row 1 to the SOUTH (no intervening rows may be skipped).  Within
    a row, each receptor position is assigned either a 0 or 1,
    starting with the westernmost receptor.
       0 = gridded receptor not processed
       1 = gridded receptor processed

    Repeated value notation may be used to select blocks of receptors:
       23*1, 15*0, 12*1

    Because all values are initially set to 1, any receptors north of
    the first row entered, or east of the last value provided in a row,
    remain ON.

    (NGXRECP) -- Default: 1


-------------------------------------------------------------------------------

INPUT GROUP: 2 -- Visibility Parameters (ASPEC = VISIB)
--------------

    Identify the Base Time Zone for the CALPUFF simulation
                            (BTZONE) -- No default    ! BTZONE =  5.!

    Particle growth curve f(RH) for hygroscopic species
                              (MFRH) -- Default: 2    ! MFRH    =  2  !

         1 =  IWAQM (1998) f(RH) curve (originally used with MVISBK=1)
         2 =  FLAG (2000) f(RH) tabulation
         3 =  EPA (2003) f(RH) tabulation

    Maximum relative humidity (%) used in particle growth curve
                             (RHMAX) -- Default: 98    ! RHMAX   = 95.0 !

    Modeled species to be included in computing the light extinction
     Include SULFATE?          (LVSO4) -- Default: T   ! LVSO4   = T  !
     Include NITRATE?          (LVNO3) -- Default: T   ! LVNO3   = T  !
     Include ORGANIC CARBON?   (LVOC)  -- Default: T   ! LVOC    = T  !
     Include COARSE PARTICLES? (LVPMC) -- Default: T   ! LVPMC   = T  !
     Include FINE PARTICLES?   (LVPMF) -- Default: T   ! LVPMF   = T  !
     Include ELEMENTAL CARBON? (LVEC)  -- Default: T   ! LVEC    = T  !

    And, when ranking for TOP-N, TOP-50, and Exceedance tables,
     Include BACKGROUND?       (LVBK)  -- Default: T   ! LVBK    = F  !
```

```
    Species name used for particulates in MODEL.DAT file
                   COARSE     (SPECPMC) -- Default: PMC ! SPECPMC = PMC !
                   FINE       (SPECPMF) -- Default: PMF ! SPECPMF = SOIL !

Extinction Efficiency (1/Mm per ug/m**3)
---------------------------------------
    MODELED particulate species:
               PM  COARSE       (EEPMC) -- Default: 0.6 ! EEPMC   = 0.6 !
               PM  FINE         (EEPMF) -- Default: 1.0 ! EEPMF   = 1.0 !
    BACKGROUND particulate species:
               PM  COARSE     (EEPMCBK) -- Default: 0.6 ! EEPMCBK = 0.6 !
    Other species:
              AMMONIUM SULFATE (EESO4) -- Default: 3.0 ! EESO4   = 3.0 !
              AMMONIUM NITRATE (EENO3) -- Default: 3.0 ! EENO3   = 3.0 !
              ORGANIC CARBON   (EEOC)  -- Default: 4.0 ! EEOC    = 4.0 !
              SOIL             (EESOIL)-- Default: 1.0 ! EESOIL  = 1.0 !
              ELEMENTAL CARBON (EEEC)  -- Default: 10. ! EEEC    = 10.0 !

Background Extinction Computation
--------------------------------

    Method used for the 24h-average of percent change of light extinction:
    Hourly ratio of source light extinction / background light extinction
    is averaged?              (LAVER) -- Default: F   ! LAVER = F  !


    Method used for background light extinction
                             (MVISBK) -- Default: 2   ! MVISBK =  2  !

         1 =  Supply single light extinction and hygroscopic fraction
              - Hourly F(RH) adjustment applied to hygroscopic background
                and modeled sulfate and nitrate
         2 =  Compute extinction from speciated PM measurements (A)
              - Hourly F(RH) adjustment applied to observed and modeled sulfate
                and nitrate
              - F(RH) factor is capped at F(RHMAX)
         3 =  Compute extinction from speciated PM measurements (B)
              - Hourly F(RH) adjustment applied to observed and modeled sulfate
                and nitrate
              - Receptor-hour excluded if RH>RHMAX
              - Receptor-day excluded if fewer than 6 valid receptor-hours
         4 =  Read hourly transmissometer background extinction measurements
              - Hourly F(RH) adjustment applied to modeled sulfate and nitrate
              - Hour excluded if measurement invalid (missing, interference,
                or large RH)
              - Receptor-hour excluded if RH>RHMAX
              - Receptor-day excluded if fewer than 6 valid receptor-hours
         5 =  Read hourly nephelometer background extinction measurements
              - Rayleigh extinction value (BEXTRAY) added to measurement
              - Hourly F(RH) adjustment applied to modeled sulfate and nitrate
              - Hour excluded if measurement invalid (missing, interference,
                or large RH)
              - Receptor-hour excluded if RH>RHMAX
              - Receptor-day excluded if fewer than 6 valid receptor-hours
         6 =  Compute extinction from speciated PM measurements
              - FLAG monthly RH adjustment factor applied to observed and
                modeled sulfate and nitrate
         7 =  Use observed weather or prognostic weather information for
              background extinction during weather events; otherwise, use Method 2
              - Hourly F(RH) adjustment applied to modeled sulfate and nitrate
              - F(RH) factor is capped at F(RHMAX)
              - During observed weather events, compute Bext from visual range
                if using an observed weather data file, or
              - During prognostic weather events, use Bext from the prognostic
                weather file
              - Use Method 2 for hours without a weather event

      Additional inputs used for MVISBK = 1:
      --------------------------------------
       Background light extinction (1/Mm)
                              (BEXTBK) -- No default    ! BEXTBK = 0.0 !
       Percentage of particles affected by relative humidity
                              (RHFRAC) -- No default    ! RHFRAC = 0.0 !

      Additional inputs used for MVISBK = 6:
      --------------------------------------
       Extinction coefficients for hygroscopic species (modeled and
       background) are computed using a monthly RH adjustment factor
       in place of an hourly RH factor (VISB.DAT file is NOT needed).
       Enter the 12 monthly factors here (RHFAC). Month 1 is January.

       (RHFAC)  -- No default     ! RHFAC = 3.5, 3.2, 3.1, 3.0,
                                            3.0, 3.5, 3.5, 3.7,
                                            3.7, 3.5, 3.4, 3.6 !
```

USED MVISBK = 6, DAILY EXTINCTIONS CALCULATED FROM MONTHLY F(RH) FROM TABLE A-2 IN "GUIDANCE FOR ESTIMATING NATURAL VISIBLITY CONDITIONS UNDER THE REGIONAL HAZE RULE (EPA, 2003)".

```
    Additional inputs used for MVISBK = 7:
    --------------------------------------
     The weather data file (DATSAV abbreviated space-delimited) that
     is identified as VSRN.DAT may contain data for more than one
     station.  Identify the stations that are needed in the order in
     which they will be used to obtain valid weather and visual range.
     The first station that contains valid data for an hour will be
     used.  Enter up to MXWSTA (set in PARAMS file) integer station IDs
     of up to 6 digits each as variable IDWSTA, and enter the corresponding
     time zone for each, as variable TZONE (= UTC-LST).

     A prognostic weather data file with Bext for weather events may be used
     in place of the observed weather file.  Identify this as the VSRN.DAT
     file and use a station ID of IDWSTA = 999999, and TZONE = 0.

     NOTE:  TZONE identifies the time zone used in the dataset.  The
            DATSAV abbreviated space-delimited data usually are prepared
            with UTC time rather than local time, so TZONE is typically
            set to zero.

     (IDWSTA)    -- No default
    ! IDWSTA = 690230 ,80020 ,80140 !
     (TZONE)     -- No default
    ! TZONE  = 0.0 ,0.0 ,0.0 !


    Additional inputs used for MVISBK = 2,3,6,7:
    --------------------------------------------
     Background extinction coefficients are computed from monthly
     CONCENTRATIONS of ammonium sulfate (BKSO4), ammonium nitrate (BKNO3),
     coarse particulates (BKPMC), organic carbon (BKOC), soil (BKSOIL), and
     elemental carbon (BKEC).  Month 1 is January.
     (ug/m**3)

USED MVISBK = 6, DAILY EXTINCTIONS CALCULATED FROM MONTHLY RH FACTORS PROVIDED

     (BKSO4)  -- No default     ! BKSO4 = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !
     (BKNO3)  -- No default     ! BKNO3 = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !
     (BKPMC)  -- No default     ! BKPMC = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !
     (BKOC)   -- No default     ! BKOC  = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !
     (BKSOIL) -- No default     ! BKSOIL= 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !
     (BKEC)   -- No default     ! BKEC  = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !

    Additional inputs used for MVISBK = 2,3,5,6,7:
    ----------------------------------------------
     Extinction due to Rayleigh scattering is added (1/Mm)
                               (BEXTRAY) -- Default: 10.0 ! BEXTRAY = 10.0 !

RAYLEIGH SCATTERING TAKEN FROM TABLE A2 OF THE "REVISED IMPROVE ALGORITHM FOR ESTIMATING
LIGHT EXTINCTION FROM PARTICLE SPECIATION DATA".

!END!
-------------------------------------------------------------------------------

INPUT GROUP: 3 -- Output options
--------------

Documentation
-------------

    Documentation records contained in the header of the
    CALPUFF output file may be written to the list file.
    Print documentation image?
                                (LDOC) -- Default: F   !  LDOC =  F  !

Output Units
------------
    Units for All Output       (IPRTU) -- Default: 1   ! IPRTU =  3   !
                      for             for
                 Concentration    Deposition
       1 =          g/m**3         g/m**2/s
       2 =         mg/m**3        mg/m**2/s
       3 =         ug/m**3        ug/m**2/s
       4 =         ng/m**3        ng/m**2/s
       5 =        Odour Units
```

```
    Visibility: extinction expressed in 1/Mega-meters (IPRTU is ignored)

Averaging time(s) reported
--------------------------

    1-hr averages           (L1HR) -- Default: T   !  L1HR = T  !

    3-hr averages           (L3HR) -- Default: T   !  L3HR = T  !

    24-hr averages         (L24HR) -- Default: T   ! L24HR = T  !

    Run-length averages    (LRUNL) -- Default: T   ! LRUNL = T  !

    User-specified averaging time in hours - results for
    an averaging time of NAVG hours are reported for
    NAVG greater than 0:
                            (NAVG) -- Default: 0   !  NAVG =  8  !

Types of tabulations reported
------------------------------

   1) Visibility: daily visibility tabulations are always reported
                  for the selected receptors when ASPEC = VISIB.
                  In addition, any of the other tabulations listed
                  below may be chosen to characterize the light
                  extinction coefficients.
                  [List file or Plot/Analysis File]

   2) Top 50 table for each averaging time selected
      [List file only]
                            (LT50) -- Default: T   !  LT50 = F  !

   3) Top 'N' table for each averaging time selected
      [List file or Plot file]
                           (LTOPN) -- Default: F   ! LTOPN = T  !

        -- Number of 'Top-N' values at each receptor
           selected (NTOP must be <= 4)
                            (NTOP) -- Default: 4   ! NTOP =  2   !

        -- Specific ranks of 'Top-N' values reported
           (NTOP values must be entered)
                   (ITOP(4) array) -- Default:     ! ITOP =  1,2  !
                                      1,2,3,4

   4) Threshold exceedance counts for each receptor and each averaging
      time selected
      [List file or Plot file]
                           (LEXCD) -- Default: F   !  LEXCD = F  !

        -- Identify the threshold for each averaging time by assigning a
           non-negative value (output units).

                                      -- Default: -1.0
           Threshold for  1-hr averages   (THRESH1) !  THRESH1 = -1.0  !
           Threshold for  3-hr averages   (THRESH3) !  THRESH3 = -1.0  !
           Threshold for 24-hr averages  (THRESH24) ! THRESH24 = -1.0  !
           Threshold for NAVG-hr averages (THRESHN) !  THRESHN = -1.0  !

        -- Counts for the shortest averaging period selected can be
           tallied daily, and receptors that experience more than NCOUNT
           counts over any NDAY period will be reported.  This type of
           exceedance violation output is triggered only if NDAY > 0.

           Accumulation period(Days)
                             (NDAY) -- Default: 0   !    NDAY =  0  !
           Number of exceedances allowed
                           (NCOUNT) -- Default: 1   !  NCOUNT =  1  !

   5) Selected day table(s)

      Echo Option -- Many records are written each averaging period
      selected and output is grouped by day
      [List file or Plot file]
                            (LECHO) -- Default: F   !  LECHO = F  !

      Timeseries Option -- Averages at all selected receptors for
      each selected averaging period are written to timeseries files.
      Each file contains one averaging period, and all receptors are
      written to a single record each averaging time.
      [TSERIES_ASPEC_ttHR_CONC_TSUNAM.DAT files]
```

```
                              (LTIME) -- Default: F    !  LTIME = F  !

       Peak Value Option -- Averages at all selected receptors for
       each selected averaging period are screened and the peak value
       each period is written to timeseries files.
       Each file contains one averaging period.
       [PEAKVAL_ASPEC_ttHR_CONC_TSUNAM.DAT files]
                              (LPEAK) -- Default: F    !  LPEAK = F  !

         -- Days selected for output
                         (IECHO(366)) -- Default: 366*0
            ! IECHO  = 366*0  !
            (366 values must be entered)

Plot output options
-------------------

      Plot files can be created for the Top-N, Exceedance, and Echo
      tables selected above.  Two formats for these files are available,
      DATA and GRID.  In the DATA format, results at all receptors are
      listed along with the receptor location [x,y,val1,val2,...].
      In the GRID format, results at only gridded receptors are written,
      using a compact representation.  The gridded values are written in
      rows (x varies), starting with the most southern row of the grid.
      The GRID format is given the .GRD extension, and includes headers
      compatible with the SURFER(R) plotting software.

      A plotting and analysis file can also be created for the daily
      peak visibility summary output, in DATA format only.

      Generate Plot file output in addition to writing tables
      to List file?
                                   (LPLT) -- Default: F    ! LPLT   = F !

      Use GRID format rather than DATA format,
      when available?
                                   (LGRD) -- Default: F    ! LGRD   = F !


Auxiliary Output Files (for subsequent analyses)
------------------------------------------------

       Visibility

       A separate output file may be requested that contains the change
       in visibility at each selected receptor when ASPEC = VISIB.  This
       file can be processed to construct visibility measures that are
       not available in CALPOST.

       Output file with the visibility change at each receptor?
                                  (MDVIS) -- Default: 0    ! MDVIS   = 0 !

            0 =  Do Not create file
            1 =  Create file of DAILY (24 hour) Delta-Deciview
            2 =  Create file of DAILY (24 hour) Extinction Change (%)
            3 =  Create file of HOURLY Delta-Deciview
            4 =  Create file of HOURLY Extinction Change (%)


Additional Debug Output
-----------------------

   Output selected information to List file
    for debugging?
                                 (LDEBUG) -- Default: F   ! LDEBUG   = F !

   Output hourly extinction information to REPORT.HRV?
    (Visibility Method 7)
                                (LVEXTHR) -- Default: F   ! LVEXTHR = F !

!END!
```

POSTBOB by Golder Associates
Version 040303

CALPOST LIST FILENAME : PSTSO2G.LST

** FPL WCEC 3 ON GAS WITH DB - CALPOST FOR SO2 CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2001

POLLUTANT : SO2 MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.1785	861	1672.204	-1436.234	(01010206)
1	2	0.1673	853	1652.097	-1439.892	(01020302)
3	1	0.1597	828	1652.601	-1442.683	(01042612)
3	2	0.1226	726	1647.066	-1455.213	(01042615)
24	1	0.0421	859	1667.178	-1437.152	(01010324)
24	2	0.0376	855	1657.124	-1438.981	(01042624)
8	1	0.1144	853	1652.097	-1439.892	(01042616)
8	2	0.0849	832	1662.659	-1440.859	(01010308)
8760	1	0.0016	896	1589.784	-1439.425	(01123124)

****

CALPOST LIST FILENAME : PSTSO2O.LST

** FPL WCEC 3 ON OIL - CALPOST FOR SO2 CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2001

POLLUTANT : SO2 MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.0311	852	1649.583	-1440.346	(01042610)
1	2	0.0303	851	1647.069	-1440.799	(01042611)
3	1	0.0295	852	1649.583	-1440.346	(01042612)
3	2	0.0241	748	1644.047	-1452.873	(01042615)
24	1	0.0073	851	1647.069	-1440.799	(01042624)
24	2	0.0073	851	1647.069	-1440.799	(01101724)
8	1	0.0213	851	1647.069	-1440.799	(01042616)
8	2	0.0129	851	1647.069	-1440.799	(01101724)
8760	1	0.0003	901	1581.758	-1437.940	(01123124)

****

CALPOST LIST FILENAME : PSTNOXG.LST

** FPL WCEC 3 ON GAS WITH DB - CALPOST FOR NOX CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2001

POLLUTANT : NOX MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.2352	861	1672.204	-1436.234	(01010206)
1	2	0.1742	781	1663.674	-1446.441	(01010303)
3	1	0.1465	858	1664.664	-1437.611	(01010309)
3	2	0.1354	858	1664.664	-1437.611	(01011324)
24	1	0.0515	858	1664.664	-1437.611	(01010324)
24	2	0.0471	858	1664.664	-1437.611	(01010224)
8	1	0.1225	858	1664.664	-1437.611	(01010308)
8	2	0.0911	859	1667.178	-1437.152	(01010208)
8760	1	0.0014	898	1594.811	-1438.549	(01123124)

****

CALPOST LIST FILENAME : PSTNOXO.LST

** FPL WCEC 3 ON OIL - CALPOST FOR NOX CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2001

POLLUTANT : NOX MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.5106	849	1642.040	-1441.704	(01020302)
1	2	0.4514	837	1675.228	-1438.563	(01122106)
3	1	0.3636	761	1676.763	-1446.935	(01122106)
3	2	0.3255	786	1676.251	-1444.144	(01102706)
24	1	0.1225	851	1647.069	-1440.799	(01101724)
24	2	0.0904	862	1674.716	-1435.773	(01102724)
8	1	0.2923	786	1676.251	-1444.144	(01122108)
8	2	0.2200	851	1647.069	-1440.799	(01101808)
8760	1	0.0032	896	1589.784	-1439.425	(01123124)

****

CALPOST LIST FILENAME : PSTPMG.LST

** FPL WCEC 3 ON GAS WITH DB - CALPOST FOR PM CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2001

POLLUTANT : PM10 MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.0857	854	1654.610	-1439.437	(01042610)
1	2	0.0824	853	1652.097	-1439.892	(01042611)
3	1	0.0809	828	1652.601	-1442.683	(01042612)
3	2	0.0590	726	1647.066	-1455.213	(01042615)
24	1	0.0199	859	1667.178	-1437.152	(01010324)
24	2	0.0178	855	1657.124	-1438.981	(01042624)
8	1	0.0547	853	1652.097	-1439.892	(01042616)
8	2	0.0388	832	1662.659	-1440.859	(01010308)
8760	1	0.0008	901	1581.758	-1437.940	(01123124)

****

CALPOST LIST FILENAME : PSTPMO.LST

** FPL WCEC 3 ON OIL - CALPOST FOR PM10 CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2001

POLLUTANT : PM10 MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.3727	749	1646.564	-1452.420	(01042612)
1	2	0.3667	726	1647.066	-1455.213	(01042612)
3	1	0.3508	852	1649.583	-1440.346	(01042612)
3	2	0.2769	725	1644.548	-1455.666	(01042612)
24	1	0.0805	851	1647.069	-1440.799	(01042624)
24	2	0.0758	851	1647.069	-1440.799	(01101724)
8	1	0.2380	851	1647.069	-1440.799	(01042616)
8	2	0.1384	851	1647.069	-1440.799	(01101724)
8760	1	0.0033	901	1581.758	-1437.940	(01123124)

****

CALPOST LIST FILENAME : PSTCOG.LST

** FPL WCEC 3 ON GAS WITH DB - CALPOST FOR CO CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2001

POLLUTANT : CO MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.7510	854	1654.610	-1439.437	(01042610)
1	2	0.7228	829	1655.116	-1442.228	(01042611)
3	1	0.7047	828	1652.601	-1442.683	(01042612)
3	2	0.5908	749	1646.564	-1452.420	(01042615)

24	1	0.1855	853	1652.097	-1439.892	(01042624)
24	2	0.1389	856	1659.638	-1438.525	(01010224)
8	1	0.5214	827	1650.086	-1443.137	(01042616)
8	2	0.3143	858	1664.664	-1437.611	(01010308)
8760	1	0.0078	896	1589.784	-1439.425	(01123124)

****

CALPOST LIST FILENAME : PSTCOO.LST

** FPL WCEC 3 ON OIL - CALPOST FOR CO CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2001

POLLUTANT : CO MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.5254	749	1646.564	-1452.420	(01042612)
1	2	0.5176	726	1647.066	-1455.213	(01042612)
3	1	0.4937	852	1649.583	-1440.346	(01042612)
3	2	0.4383	749	1646.564	-1452.420	(01042612)
24	1	0.1318	851	1647.069	-1440.799	(01042624)
24	2	0.1030	851	1647.069	-1440.799	(01101724)
8	1	0.3751	851	1647.069	-1440.799	(01042616)
8	2	0.1794	862	1674.716	-1435.773	(01010116)
8760	1	0.0052	901	1581.758	-1437.940	(01123124)

****

CALPOST LIST FILENAME : PSTSAMG.LST

** FPL WCEC 3 ON GAS WITH DB - CALPOST FOR SAM CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2001

POLLUTANT : SO4 MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.0639	727	1649.585	-1454.760	(01042612)
1	2	0.0625	727	1649.585	-1454.760	(01042613)
3	1	0.0586	802	1653.106	-1445.475	(01042612)
3	2	0.0471	726	1647.066	-1455.213	(01042615)
24	1	0.0138	801	1650.590	-1445.929	(01042624)
24	2	0.0114	780	1661.159	-1446.898	(01011424)
8	1	0.0406	801	1650.590	-1445.929	(01042616)
8	2	0.0233	859	1667.178	-1437.152	(01042616)
8760	1	0.0006	901	1581.758	-1437.940	(01123124)

****

CALPOST LIST FILENAME : PSTSAMO.LST

** FPL WCEC 3 ON OIL - CALPOST FOR SAM CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2001

POLLUTANT : SO4 MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.0115	702	1645.050	-1458.459	(01042613)
1	2	0.0112	749	1646.564	-1452.420	(01042612)
3	1	0.0098	852	1649.583	-1440.346	(01042612)
3	2	0.0085	748	1644.047	-1452.873	(01042615)
24	1	0.0023	774	1646.061	-1449.628	(01042624)
24	2	0.0021	700	1640.012	-1459.363	(01011424)
8	1	0.0069	774	1646.061	-1449.628	(01042616)
8	2	0.0041	856	1659.638	-1438.525	(01082716)
8760	1	0.9894E-04	901	1581.758	-1437.940	(01123124)

****

POSTBOB by Golder Associates

Version 040303

CALPOST LIST FILENAME : PSTSO2G.LST

** FPL WCEC 3 ON GAS WITH DB - CALPOST FOR SO2 CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2002

POLLUTANT : SO2 MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.1597	862	1674.716	-1435.773	(02111402)
1	2	0.1582	862	1674.716	-1435.773	(02113004)
3	1	0.1335	811	1675.740	-1441.354	(02113006)
3	2	0.1174	862	1674.716	-1435.773	(02111403)
24	1	0.0408	837	1675.228	-1438.563	(02113024)
24	2	0.0401	811	1675.740	-1441.354	(02010524)
8	1	0.1020	862	1674.716	-1435.773	(02113008)
8	2	0.0912	786	1676.251	-1444.144	(02010508)
8760	1	0.0019	862	1674.716	-1435.773	(02123124)

****

CALPOST LIST FILENAME : PSTSO2O.LST

** FPL WCEC 3 ON OIL - CALPOST FOR SO2 CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2002

POLLUTANT : SO2 MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.0258	855	1657.124	-1438.981	(02110308)
1	2	0.0248	849	1642.040	-1441.704	(02120307)
3	1	0.0200	855	1657.124	-1438.981	(02110309)
3	2	0.0179	862	1674.716	-1435.773	(02052012)
24	1	0.0067	882	1598.301	-1443.696	(02011624)
24	2	0.0055	848	1609.343	-1447.518	(02011624)
8	1	0.0115	823	1614.867	-1449.425	(02120308)
8	2	0.0101	747	1621.384	-1456.915	(02112008)
8760	1	0.0003	861	1672.204	-1436.234	(02123124)

****

CALPOST LIST FILENAME : PSTNOXG.LST

** FPL WCEC 3 ON GAS WITH DB - CALPOST FOR NOX CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2002

POLLUTANT : NOX MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.2157	862	1674.716	-1435.773	(02111402)
1	2	0.1999	862	1674.716	-1435.773	(02113004)
3	1	0.1666	811	1675.740	-1441.354	(02113006)
3	2	0.1587	862	1674.716	-1435.773	(02111403)
24	1	0.0502	811	1675.740	-1441.354	(02010524)
24	2	0.0451	862	1674.716	-1435.773	(02113024)
8	1	0.1276	862	1674.716	-1435.773	(02113008)
8	2	0.1182	811	1675.740	-1441.354	(02010508)
8760	1	0.0016	862	1674.716	-1435.773	(02123124)

****

CALPOST LIST FILENAME : PSTNOXO.LST

** FPL WCEC 3 ON OIL - CALPOST FOR NOX CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2002

POLLUTANT : NOX MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.4927	849	1642.040	-1441.704	(02120306)
1	2	0.4877	849	1642.040	-1441.704	(02120307)
3	1	0.3436	855	1657.124	-1438.981	(02110309)
3	2	0.3190	856	1659.638	-1438.525	(02112809)
24	1	0.0966	861	1672.204	-1436.234	(02120724)
24	2	0.0894	837	1675.228	-1438.563	(02022524)
8	1	0.2195	823	1614.867	-1449.425	(02120308)
8	2	0.2038	747	1621.384	-1456.915	(02112008)
8760	1	0.0034	862	1674.716	-1435.773	(02123124)

****

CALPOST LIST FILENAME : PSTPMG.LST

** FPL WCEC 3 ON GAS WITH DB - CALPOST FOR PM CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2002

POLLUTANT : PM10 MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.0747	862	1674.716	-1435.773	(02111402)
1	2	0.0735	862	1674.716	-1435.773	(02113004)
3	1	0.0624	811	1675.740	-1441.354	(02113006)
3	2	0.0548	862	1674.716	-1435.773	(02111403)
24	1	0.0196	837	1675.228	-1438.563	(02113024)
24	2	0.0186	811	1675.740	-1441.354	(02010524)
8	1	0.0475	862	1674.716	-1435.773	(02113008)
8	2	0.0415	786	1676.251	-1444.144	(02010508)
8760	1	0.0010	862	1674.716	-1435.773	(02123124)

****

CALPOST LIST FILENAME : PSTPMO.LST

** FPL WCEC 3 ON OIL - CALPOST FOR PM10 CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2002

POLLUTANT : PM10 MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.2776	855	1657.124	-1438.981	(02110308)
1	2	0.2758	849	1642.040	-1441.704	(02120307)
3	1	0.2159	855	1657.124	-1438.981	(02110309)
3	2	0.1944	862	1674.716	-1435.773	(02052012)
24	1	0.0863	814	1592.214	-1453.395	(02011624)
24	2	0.0660	848	1609.343	-1447.518	(02120324)
8	1	0.1295	823	1614.867	-1449.425	(02120308)
8	2	0.1148	837	1675.228	-1438.563	(02120624)
8760	1	0.0037	861	1672.204	-1436.234	(02123124)

****

CALPOST LIST FILENAME : PSTCOG.LST

** FPL WCEC 3 ON GAS WITH DB - CALPOST FOR CO CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2002

POLLUTANT : CO MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.6074	862	1674.716	-1435.773	(02120619)
1	2	0.5688	862	1674.716	-1435.773	(02111402)
3	1	0.4746	811	1675.740	-1441.354	(02113006)
3	2	0.4398	761	1676.763	-1446.935	(02120621)

24	1	0.1506	847	1606.827	-1447.960	(02011624)
24	2	0.1411	811	1675.740	-1441.354	(02010524)
8	1	0.3614	862	1674.716	-1435.773	(02113008)
8	2	0.3153	786	1676.251	-1444.144	(02010508)
8760	1	0.0089	862	1674.716	-1435.773	(02123124)

****

CALPOST LIST FILENAME : PSTCOO.LST

** FPL WCEC 3 ON OIL - CALPOST FOR CO CONCENTRATION   EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2002

POLLUTANT : CO   MODE : CONCENTRATION   UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.3946	862	1674.716	-1435.773	(02120619)
1	2	0.3552	849	1642.040	-1441.704	(02120306)
3	1	0.2941	862	1674.716	-1435.773	(02052012)
3	2	0.2746	862	1674.716	-1435.773	(02031012)
24	1	0.1154	814	1592.214	-1453.395	(02011624)
24	2	0.0859	848	1609.343	-1447.518	(02120324)
8	1	0.1780	837	1675.228	-1438.563	(02120624)
8	2	0.1645	861	1672.204	-1436.234	(02052016)
8760	1	0.0057	860	1669.691	-1436.693	(02123124)

****

CALPOST LIST FILENAME : PSTSAMG.LST

** FPL WCEC 3 ON GAS WITH DB - CALPOST FOR SAM CONCENTRATION   EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2002

POLLUTANT : SO4   MODE : CONCENTRATION   UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.0445	837	1675.228	-1438.563	(02120619)
1	2	0.0398	862	1674.716	-1435.773	(02113004)
3	1	0.0375	267	1642.959	-1505.000	(02052118)
3	2	0.0313	172	1636.855	-1514.750	(02052118)
24	1	0.0138	764	1598.225	-1458.107	(02011624)
24	2	0.0110	862	1674.716	-1435.773	(02040424)
8	1	0.0277	143	1632.282	-1518.449	(02052124)
8	2	0.0221	786	1676.251	-1444.144	(02010508)
8760	1	0.0007	862	1674.716	-1435.773	(02123124)

****

CALPOST LIST FILENAME : PSTSAMO.LST

** FPL WCEC 3 ON OIL - CALPOST FOR SAM CONCENTRATION   EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2002

POLLUTANT : SO4   MODE : CONCENTRATION   UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.0082	237	1648.524	-1506.892	(02052116)
1	2	0.0080	236	1645.992	-1507.346	(02052116)
3	1	0.0075	236	1645.992	-1507.346	(02052118)
3	2	0.0059	145	1637.353	-1517.549	(02052118)
24	1	0.0025	814	1592.214	-1453.395	(02011624)
24	2	0.0017	862	1674.716	-1435.773	(02112724)
8	1	0.0052	119	1635.314	-1520.799	(02052124)
8	2	0.0034	837	1675.228	-1438.563	(02032824)
8760	1	0.0001	860	1669.691	-1436.693	(02123124)

****

POSTBOB by Golder Associates
Version 040303

CALPOST LIST FILENAME : PSTSO2G.LST

** FPL WCEC 3 ON GAS WITH DB - CALPOST FOR SO2 CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2003

POLLUTANT : SO2 MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.2028	860	1669.691	-1436.693	(03011124)
1	2	0.1681	862	1674.716	-1435.773	(03021306)
3	1	0.1359	862	1674.716	-1435.773	(03021309)
3	2	0.1185	861	1672.204	-1436.234	(03012803)
24	1	0.0432	862	1674.716	-1435.773	(03010524)
24	2	0.0371	861	1672.204	-1436.234	(03021324)
8	1	0.0850	853	1652.097	-1439.892	(03020524)
8	2	0.0810	854	1654.610	-1439.437	(03032508)
8736	1	0.0022	858	1664.664	-1437.611	(03123124)

****

CALPOST LIST FILENAME : PSTSO2O.LST

** FPL WCEC 3 ON OIL - CALPOST FOR SO2 CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2003

POLLUTANT : SO2 MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.0310	862	1674.716	-1435.773	(03010512)
1	2	0.0309	862	1674.716	-1435.773	(03010513)
3	1	0.0250	862	1674.716	-1435.773	(03010512)
3	2	0.0229	862	1674.716	-1435.773	(03010515)
24	1	0.0078	862	1674.716	-1435.773	(03010524)
24	2	0.0060	860	1669.691	-1436.693	(03021324)
8	1	0.0198	862	1674.716	-1435.773	(03010516)
8	2	0.0136	861	1672.204	-1436.234	(03021308)
8736	1	0.0003	859	1667.178	-1437.152	(03123124)

****

CALPOST LIST FILENAME : PSTNOXG.LST

** FPL WCEC 3 ON GAS WITH DB - CALPOST FOR NOX CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2003

POLLUTANT : NOX MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.2292	859	1667.178	-1437.152	(03011124)
1	2	0.2192	862	1674.716	-1435.773	(03021307)
3	1	0.1613	862	1674.716	-1435.773	(03021309)
3	2	0.1534	861	1672.204	-1436.234	(03021309)
24	1	0.0392	862	1674.716	-1435.773	(03021324)
24	2	0.0364	859	1667.178	-1437.152	(03100124)
8	1	0.1091	855	1657.124	-1438.981	(03032508)
8	2	0.0947	856	1659.638	-1438.525	(03100108)
8736	1	0.0018	858	1664.664	-1437.611	(03123124)

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CALPOST LIST FILENAME : PSTNOXO.LST

** FPL WCEC 3 ON OIL - CALPOST FOR NOX CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2003

POLLUTANT : NOX MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING RANK PEAK RECEPTOR RECEPTOR LOCATION PERIOD

PERIOD		VALUE	NUMBER	X (KM)	Y (KM)	(YYMMDDHE)
1	1	0.5518	861	1672.204	-1436.234	(03021307)
1	2	0.5318	861	1672.204	-1436.234	(03021306)
3	1	0.4265	860	1669.691	-1436.693	(03021309)
3	2	0.3563	859	1667.178	-1437.152	(03012803)
24	1	0.1006	860	1669.691	-1436.693	(03021324)
24	2	0.0631	857	1662.151	-1438.068	(03112124)
8	1	0.2572	861	1672.204	-1436.234	(03021308)
8	2	0.1707	712	1670.234	-1453.899	(03111408)
8736	1	0.0034	859	1667.178	-1437.152	(03123124)

****

CALPOST LIST FILENAME : PSTPMG.LST

** FPL WCEC 3 ON GAS WITH DB - CALPOST FOR PM CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2003

POLLUTANT : PM10 MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X (KM)	Y (KM)	PERIOD (YYMMDDHE)
1	1	0.1012	860	1669.691	-1436.693	(03011124)
1	2	0.0817	785	1673.736	-1444.605	(03011124)
3	1	0.0699	855	1657.124	-1438.981	(03020521)
3	2	0.0570	861	1672.204	-1436.234	(03011124)
24	1	0.0244	862	1674.716	-1435.773	(03010524)
24	2	0.0177	861	1672.204	-1436.234	(03021324)
8	1	0.0490	854	1654.610	-1439.437	(03020524)
8	2	0.0420	854	1654.610	-1439.437	(03020816)
8736	1	0.0012	858	1664.664	-1437.611	(03123124)

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CALPOST LIST FILENAME : PSTPMO.LST

** FPL WCEC 3 ON OIL - CALPOST FOR PM10 CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2003

POLLUTANT : PM10 MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X (KM)	Y (KM)	PERIOD (YYMMDDHE)
1	1	0.3843	862	1674.716	-1435.773	(03010513)
1	2	0.3766	862	1674.716	-1435.773	(03010512)
3	1	0.2936	862	1674.716	-1435.773	(03010512)
3	2	0.2898	862	1674.716	-1435.773	(03010515)
24	1	0.1007	862	1674.716	-1435.773	(03010524)
24	2	0.0697	860	1669.691	-1436.693	(03013124)
8	1	0.2408	862	1674.716	-1435.773	(03010516)
8	2	0.1492	861	1672.204	-1436.234	(03021308)
8736	1	0.0041	860	1669.691	-1436.693	(03123124)

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CALPOST LIST FILENAME : PSTCOG.LST

** FPL WCEC 3 ON GAS WITH DB - CALPOST FOR CO CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2003

POLLUTANT : CO MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X (KM)	Y (KM)	PERIOD (YYMMDDHE)
1	1	0.7740	860	1669.691	-1436.693	(03011124)
1	2	0.6264	785	1673.736	-1444.605	(03011124)
3	1	0.5860	855	1657.124	-1438.981	(03020521)
3	2	0.4378	861	1672.204	-1436.234	(03011124)
24	1	0.1882	862	1674.716	-1435.773	(03010524)

24	2	0.1350	849	1642.040	-1441.704	(03101924)
8	1	0.4036	854	1654.610	-1439.437	(03020524)
8	2	0.3203	854	1654.610	-1439.437	(03020816)
8736	1	0.0102	858	1664.664	-1437.611	(03123124)

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CALPOST LIST FILENAME : PSTCOO.LST

** FPL WCEC 3 ON OIL - CALPOST FOR CO CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2003

POLLUTANT : CO MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.4944	862	1674.716	-1435.773	(03010513)
1	2	0.4841	862	1674.716	-1435.773	(03010512)
3	1	0.3769	862	1674.716	-1435.773	(03010512)
3	2	0.3732	862	1674.716	-1435.773	(03010515)
24	1	0.1305	862	1674.716	-1435.773	(03010524)
24	2	0.0939	860	1669.691	-1436.693	(03013124)
8	1	0.3096	862	1674.716	-1435.773	(03010516)
8	2	0.1951	852	1649.583	-1440.346	(03020816)
8736	1	0.0061	859	1667.178	-1437.152	(03123124)

****

CALPOST LIST FILENAME : PSTSAMG.LST

** FPL WCEC 3 ON GAS WITH DB - CALPOST FOR SAM CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2003

POLLUTANT : SO4 MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.0678	858	1664.664	-1437.611	(03020518)
1	2	0.0648	857	1662.151	-1438.068	(03020519)
3	1	0.0559	855	1657.124	-1438.981	(03020521)
3	2	0.0501	857	1662.151	-1438.068	(03020521)
24	1	0.0161	862	1674.716	-1435.773	(03010524)
24	2	0.0134	627	1674.282	-1461.816	(03010524)
8	1	0.0396	855	1657.124	-1438.981	(03020524)
8	2	0.0304	854	1654.610	-1439.437	(03020816)
8736	1	0.0008	857	1662.151	-1438.068	(03123124)

****

CALPOST LIST FILENAME : PSTSAMO.LST

** FPL WCEC 3 ON OIL - CALPOST FOR SAM CONCENTRATION EPA 9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2003

POLLUTANT : SO4 MODE : CONCENTRATION UNITS :(ug/m**3)

AVERAGING PERIOD	RANK	PEAK VALUE	RECEPTOR NUMBER	RECEPTOR LOCATION X(KM)	Y(KM)	PERIOD (YYMMDDHE)
1	1	0.0122	857	1662.151	-1438.068	(03020518)
1	2	0.0109	858	1664.664	-1437.611	(03020517)
3	1	0.0097	858	1664.664	-1437.611	(03020518)
3	2	0.0079	862	1674.716	-1435.773	(03010515)
24	1	0.0027	862	1674.716	-1435.773	(03010524)
24	2	0.0025	761	1676.763	-1446.935	(03013124)
8	1	0.0063	862	1674.716	-1435.773	(03010516)
8	2	0.0045	851	1647.069	-1440.799	(03020816)
8736	1	0.0001	859	1667.178	-1437.152	(03123124)

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CALPUFF

VISIBILITY

POSTUTIL

CALPOST

AND

SUMMARY FILES

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FPL WCEC 3 ON OIL POSTUTIL FOR  VISIBILITY IMPACTS       9/13/07
CLASS I RECEPTORS AT ENP
4-km FL DOMAIN, 2001

---------------- Run title (3 lines) ------------------------------------------

                      POSTUTIL MODEL CONTROL FILE
                      ---------------------------

-------------------------------------------------------------------------------

INPUT GROUP: 0 -- Input and Output File Names
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-------------
Subgroup (0a)
-------------

Output Files
------------

 File            Default File Name
 ----            -----------------
 List File       POSTUTIL.LST       ! UTLLST =PUTOILV.LST   !
 Data File       MODEL.DAT          ! UTLDAT =PUTOILV.CON   !


Input Files
-----------

 A time-varying file of "background" concentrations can be included
 when the ammonia-limiting method (ALM) for setting the HNO3/NO3
 concentration partition is accomplished in 1 step.  This option
 is selected by setting MNITRATE=3 in Input Group 1.
 Species required in the "background" concentration file are:
 SO4, NO3, HNO3 and TNH3 (total NH3).

 File            Default File Name
 ----            -----------------
 BCKG File       BCKGALM.DAT         * BCKGALM =BCKGALM.DAT     *


 A number of CALPUFF data files may be processed in this application.
 The files may represent individual CALPUFF simulations that were made
 for a specific set of species and/or sources.  Specify the total number
 of CALPUFF runs you wish to combine, and provide the filename for each
 in subgroup 0b.

     Number of CALPUFF data files (NFILES)
                                   Default: 1       ! NFILES  = 1   !


 Meteorological data files are needed for the HNO3/NO3 partition option.
 Three types of meteorological data files can be used:
       METFM= 0 ~ CALMET.DAT
       METFM= 1 ~ 1-D file with RH, Temp and Rhoair timeseries
       METFM= 2 ~ 2-D files with either Rh, Temp or Rhoair in each
                  (3 2_D files are needed)
      The default is to use CALMET.DAT files.

                                   Default: 0       ! METFM   = 0   !


 Multiple meteorological data files may be used in sequence to span the
 processing period.  Specify the number of time-period files (NMET) that
 you need to use, and provide a filename for each in subgroup 0b.
 - NMET is 0 if no meteorological files are provided
 - NMET is 1 if METFM=1 (multiple file feature is not available)
 - NMET is 1 or more if METFM=0 or 2 (multiple CALMET files or 2DMET files)

     Number of meteorological data file time-periods (NMET)
                                   Default: 0       ! NMET    = 0   !


 All filenames will be converted to lower case if LCFILES = T
 Otherwise, if LCFILES = F, filenames will be converted to UPPER CASE

     Convert filenames to lower case?  Default: T     ! LCFILES = T !
         T = lower case
         F = UPPER CASE

!END!

 -------------------------------------------------------
  NOTE: file/path names can be up to 70 characters in length
 -------------------------------------------------------
```

```
-------------
Subgroup (0b)
-------------

NMET CALMET Data Files (METFM=0):

Input File      Default File Name
----------      -----------------
   1            MET.DAT              * UTLMET =CALMET.DAT  * *END*


NMET 1-D Data Files (METFM=1):

Input File      Default File Name
----------      -----------------
   1            MET_1D.DAT           * MET1D   = MET_1D.DAT * *END*


NMET 2-D Data Files of Each Type (METFM=2):

Input File      Default File Name
----------      -----------------
   1            RHUMD.DAT            * M2DRHU  = RELHUM.DAT * *END*
   1            TEMP.DAT             * M2DTMP  = TEMP.DAT   * *END*
   1            RHOAIR.DAT           * M2DRHO  = RHOAIR.DAT * *END*


NFILES CALPUFF Data Files:

Input File      Default File Name
----------      -----------------
   1            CALPUFF.DAT          ! MODDAT =..\PUFFOIL.CON  ! !END!


-------------
Note:  provide NMET lines of the form    * UTLMET = name * *END*

                                   or    * MET1D  = name * *END*

                                   or    * M2DRHU = name * *END*
                                 (and)   * M2DTMP = name * *END*
                                 (and)   * M2DRHO = name * *END*

       and NFILES lines of the form      * MODDAT = name * *END*

       where the * should be replaced with an exclamation point,
       the special delimiter character.


--------------------------------------------------------------------------------

INPUT GROUP: 1 -- General run control parameters
--------------

     Starting date:    Year  (ISYR) --     No default    ! ISYR  =  2001 !
                       Month (ISMO) --     No default    ! ISMO  = 1    !
                       Day   (ISDY) --     No default    ! ISDY  = 1    !
                       Hour  (ISHR) --     No default    ! ISHR  = 1    !

     Number of periods to process
                                (NPER) -- No default     ! NPER  = 8760 !

     Number of species to process from CALPUFF runs
                             (NSPECINP) -- No default    ! NSPECINP = 6 !

     Number of species to write to output file
                             (NSPECOUT) -- No default    ! NSPECOUT = 9 !

     Number of species to compute from those modeled
     (must be no greater than NSPECOUT)
                             (NSPECCMP) -- No default    ! NSPECCMP = 4 !


  When multiple files are used, a species name may appear in more than
  one file.  Data for this species will be summed (appropriate if the
  CALPUFF runs use different source groups).  If this summing is not
  appropriate, remove duplicate species from the file(s).

     Stop run if duplicate species names
     are found? (MDUPLCT)            Default: 0       ! MDUPLCT  =  0  !
        0 = no  (i.e., duplicate species are summed)
        1 = yes (i.e., run is halted)

  Data for each species in a CALPUFF data file may also be scaled as
  they are read.  This can be done to alter the emission rate of all
  sources that were modeled in a particular CALPUFF application.
  The scaling factor for each species is entered in Subgroup (2d), for
  each file for which scaling is requested.
```

```
     Number of CALPUFF data files that will be scaled
     (must be no greater than NFILES)
     (NSCALED)                         Default: 0        ! NSCALED = 0 !


  Ammonia-Limiting Method Option to recompute the HNO3/NO3 concentration
  partition prior to performing other actions is controlled by MNITRATE.
  This option will NOT alter any deposition fluxes contained in the CALPUFF
  file(s).  Three partition selections are provided.  The first two are
  typically used in sequence (POSTUTIL is run more than once).  The first
  selection (MNITRATE=1) computes the partition for the TOTAL (all sources)
  concentration fields (SO4, NO3, HNO3; NH3), and the second (MNITRATE=2)
  uses this partition (from the previous application of POSTUTIL) to
  compute the partition for individual source groups.  The third selection
  (MNITRATE=3) can be used instead in a single POSTUTIL application if a
  file of background concentrations is provided (BCKGALM in Input Group 0).

  Required information for MNITRATE=1 includes:
           species NO3, HNO3, and SO4
           NH3 concentration(s)
           met. data file for RH and T

  Required information for MNITRATE=2 includes:
           species NO3 and HNO3 for a source group
           species NO3ALL and HNO3ALL for all source groups, properly
           partitioned

  Required information for MNITRATE=3 includes:
           species NO3, HNO3, and SO4 for a source group
           species NO3, HNO3, SO4 and TNH3 from the background BCKGALM file
           If TNH3 is not in the background BCKGALM file, monthly TNH3
           concentrations are used (BCKTNH3)

     Recompute the HNO3/NO3 partition for concentrations?
     (MNITRATE)                        Default: 0        ! MNITRATE  =  0  !
        0 = no
        1 = yes, for all sources combined
        2 = yes, for a source group
        3 = yes, ALM application in one step


  SOURCE OF AMMONIA:

  Ammonia may be available as a modeled species in the CALPUFF files,
  and it may or may not be appropriate to use it for repartitioning NO3/HNO3
  (in option MNITRATE=1 or MNITRATE=3).  Its use is contolled by NH3TYP.
  When NH3 is listed as a processed species in Subgroup (2a), as one of
  the NSPECINP ASPECI entries, and the right option is chosen for NH3TYP,
  the NH3 modeled values from the CALPUFF concentration files will be used
  in the chemical equilibrium calculation.

  NH3TYP also controls when monthly background ammonia values are used.  Both
  gaseous (NH3) and total (TNH3) ammonia can be provided monthly as
  BCKNH3/BCKTNH3.

     What is the input source of Ammonia?
     (NH3TYP)                          No Default        ! NH3TYP = 0  !
        0 = No background will be used.
            ONLY NH3 from the concentration
            files listed in Subgroup (2a) as
            a processed species will be used.
            (Cannot be used with MNITRATE=3)

        1 = NH3 Monthly averaged background (BCKNH3)
            listed below will be added to NH3 from
            concentration files listed in Subgroup (2a)

        2 = NH3 from background concentration file BCKGALM
            will be added to NH3 from concentration files
            listed in Subgroup (2a)
            (ONLY possible for MNITRATE=3)

        3 = NH3 Monthly averaged background (BCKNH3)
            listed below will be used alone.

        4 = NH3 from background concentration file BCKGALM
            will be used alone
            (ONLY possible for MNITRATE=3)

     | NH3TYP | NH3 CONC | NH3 FROM BCKNH3 | NH3 FROM BCKGALM |
     |--------|----------|-----------------|------------------|
     |   0    |    X     |        0        |        0         |
     |--------|----------|-----------------|------------------|
     |   1    |    X     |        X        |        0         |
     |--------|----------|-----------------|------------------|
     |   2    |    X     |        0        |        X         |
     |--------|----------|-----------------|------------------|
```

```
     |    3    |     0     |        X         |        0         |
     |---------|-----------|------------------|------------------|
     |    4    |     0     |        0         |        X         |
     |---------|-----------|------------------|------------------|


     Default monthly (12 values) background ammonia concentration (ppb)
     used for HNO3/NO3 partition:

      Gaseous NH3 (BCKNH3)            Default: -999
      ! BCKNH3 = 1., 1., 1., 1.1, 1.4, 1.3, 1.3, 1.2, 4*1. !

      Total TNH3  (BCKTNH3)           Default: -999
      * BCKTNH3 = 1., 1., 1., 1.1, 1.4, 1.3, 1.3, 1.2, 4*1. *

     If a single value is entered, this is used for all 12 months.
     Month 1 is JANUARY, Month 12 is DECEMBER.

!END!
--------------------------------------------------------------------------------

INPUT GROUP: 2 -- Species Processing Information
--------------

-------------
Subgroup (2a)
-------------

  The following NSPECINP species will be processed:

! ASPECI =          SO2 !          !END!
! ASPECI =          SO4 !          !END!
! ASPECI =          NOX !          !END!
! ASPECI =         HNO3 !          !END!
! ASPECI =          NO3 !          !END!
! ASPECI =         PM10 !          !END!


-------------
Subgroup (2b)
-------------

  The following NSPECOUT species will be written:

! ASPECO =          SO2 !          !END!
! ASPECO =          SO4 !          !END!
! ASPECO =          NOX !          !END!
! ASPECO =         HNO3 !          !END!
! ASPECO =          NO3 !          !END!
! ASPECO =          SOA !          !END!
! ASPECO =           EC !          !END!
! ASPECO =         SOIL !          !END!
! ASPECO =          PMC !          !END!

-------------
Subgroup (2c)
-------------

  The following NSPECCMP species will be computed by scaling and summing
  one or more of the processed input species.  Identify the name(s) of
  the computed species and provide the scaling factors for each of the
  NSPECINP input species (NSPECCMP groups of NSPECINP+1 lines each):

NOTE: SO4 IS INPUT TO CALPUFF EXPLICITLY

! CSPECCMP =      SOA !
!      SO2  =     0.0 !
!      SO4  =     0.0 !
!      NOX  =     0.0 !
!     HNO3  =     0.0 !
!      NO3  =     0.0 !
!     PM10  =     0.008 !
!END!

! CSPECCMP =       EC !
!      SO2  =     0.0 !
!      SO4  =     0.0 !
!      NOX  =     0.0 !
!     HNO3  =     0.0 !
!      NO3  =     0.0 !
!     PM10  =   0.073 !
!END!

! CSPECCMP =     SOIL !
!      SO2  =     0.0 !
!      SO4  =     0.0 !
!      NOX  =     0.0 !
!     HNO3  =     0.0 !
```

```
!     NO3  =     0.0 !
!    PM10  =    0.919 !
!END!

! CSPECCMP =     PMC !
!     SO2  =     0.0 !
!     SO4  =     0.0 !
!     NOX  =     0.0 !
!    HNO3  =     0.0 !
!     NO3  =     0.0 !
!    PM10  =    0.00 !
!END!

-------------
Subgroup (2d)
-------------

  Each species in NSCALED CALPUFF data files may be scaled before being
  processed (e.g., to change the emission rate for all sources modeled
  in the run that produced a data file).  For each file, identify the
  file name and then provide the name(s) of the scaled species and the
  corresponding scaling factors (A,B where x' = Ax+B).

               A(Default=1.0)      B(Default=0.0)
               --------------      --------------

!END!
```

```
FPL WCEC UNIT 3 ON OIL
POSTUTIL STEP 2 FOR HNO3/NO3 PARTITIONING - VISIBILITY IMPACTS 11/14/07
CLASS I RECEPTORS AT ENP - 4-km FL DOMAIN, 2001

---------------- Run title (3 lines) ------------------------------------------

                    POSTUTIL MODEL CONTROL FILE
                    ---------------------------

-------------------------------------------------------------------------------

INPUT GROUP: 0 -- Input and Output File Names
--------------

--------------
Subgroup (0a)
--------------

Output Files
------------

 File            Default File Name
 ----            -----------------
 List File       POSTUTIL.LST        ! UTLLST =PUTOILV2.LST   !
 Data File       MODEL.DAT           ! UTLDAT =PUTOILV2.CON   !


Input Files
-----------

 A time-varying file of "background" concentrations can be included
 when the ammonia-limiting method (ALM) for setting the HNO3/NO3
 concentration partition is accomplished in 1 step.  This option
 is selected by setting MNITRATE=3 in Input Group 1.
 Species required in the "background" concentration file are:
 SO4, NO3, HNO3 and TNH3 (total NH3).

 File            Default File Name
 ----            -----------------
 BCKG File       BCKGALM.DAT          * BCKGALM =BCKGALM.DAT     *


 A number of CALPUFF data files may be processed in this application.
 The files may represent individual CALPUFF simulations that were made
 for a specific set of species and/or sources.  Specify the total number
 of CALPUFF runs you wish to combine, and provide the filename for each
 in subgroup 0b.

     Number of CALPUFF data files (NFILES)
                                  Default: 1       ! NFILES  = 1   !


 Meteorological data files are needed for the HNO3/NO3 partition option.
 Three types of meteorological data files can be used:
       METFM= 0 - CALMET.DAT
       METFM= 1 - 1-D file with RH, Temp and Rhoair timeseries
       METFM= 2 - 2-D files with either Rh, Temp or Rhoair in each
                  (3 2_D files are needed)
      The default is to use CALMET.DAT files.

                                  Default: 0       ! METFM   = 0   !


 Multiple meteorological data files may be used in sequence to span the
 processing period.  Specify the number of time-period files (NMET) that
 you need to use, and provide a filename for each in subgroup 0b.
 - NMET is 0 if no meteorological files are provided
 - NMET is 1 if METFM=1 (multiple file feature is not available)
 - NMET is 1 or more if METFM=0 or 2 (multiple CALMET files or 2DMET files)

     Number of meteorological data file time-periods (NMET)
                                  Default: 0       ! NMET    = 12   !


 All filenames will be converted to lower case if LCFILES = T
 Otherwise, if LCFILES = F, filenames will be converted to UPPER CASE

     Convert filenames to lower case?  Default: T     ! LCFILES = T !
         T = lower case
         F = UPPER CASE

!END!

 ---------------------------------------------------------
 NOTE: file/path names can be up to 70 characters in length
 ---------------------------------------------------------
```

```
-------------
Subgroup (0b)
-------------

NMET CALMET Data Files (METFM=0):

Input File      Default File Name
----------      -----------------
   1            MET.DAT            ! UTLMET =d:\2001-DOM2EPA\met2001-dom2-JAN.dat  ! !END!
   1            MET.DAT            ! UTLMET =d:\2001-DOM2EPA\met2001-dom2-FEB.dat  ! !END!
   1            MET.DAT            ! UTLMET =d:\2001-DOM2EPA\met2001-dom2-MAR.dat  ! !END!
   1            MET.DAT            ! UTLMET =d:\2001-DOM2EPA\met2001-dom2-APR.dat  ! !END!
   1            MET.DAT            ! UTLMET =d:\2001-DOM2EPA\met2001-dom2-MAY.dat  ! !END!
   1            MET.DAT            ! UTLMET =d:\2001-DOM2EPA\met2001-dom2-JUN.dat  ! !END!
   1            MET.DAT            ! UTLMET =d:\2001-DOM2EPA\met2001-dom2-JUL.dat  ! !END!
   1            MET.DAT            ! UTLMET =d:\2001-DOM2EPA\met2001-dom2-AUG.dat  ! !END!
   1            MET.DAT            ! UTLMET =d:\2001-DOM2EPA\met2001-dom2-SEP.dat  ! !END!
   1            MET.DAT            ! UTLMET =d:\2001-DOM2EPA\met2001-dom2-OCT.dat  ! !END!
   1            MET.DAT            ! UTLMET =d:\2001-DOM2EPA\met2001-dom2-NOV.dat  ! !END!
   1            MET.DAT            ! UTLMET =d:\2001-DOM2EPA\met2001-dom2-DEC.dat  ! !END!

NMET 1-D Data Files (METFM=1):

Input File      Default File Name
----------      -----------------
   1            MET_1D.DAT         * MET1D   = MET_1D.DAT * *END*

NMET 2-D Data Files of Each Type (METFM=2):

Input File      Default File Name
----------      -----------------
   1            RHUMD.DAT          * M2DRHU  = RELHUM.DAT * *END*
   1            TEMP.DAT           * M2DTMP  = TEMP.DAT   * *END*
   1            RHOAIR.DAT         * M2DRHO  = RHOAIR.DAT * *END*

NFILES CALPUFF Data Files:

Input File      Default File Name
----------      -----------------
   1            CALPUFF.DAT        ! MODDAT = PUTOILV.CON  ! !END!

-------------
Note:  provide NMET lines of the form   * UTLMET = name * *END*

                                   or   * MET1D  = name * *END*

                                   or   * M2DRHU = name * *END*
                                (and)   * M2DTMP = name * *END*
                                (and)   * M2DRHO = name * *END*

       and NFILES lines of the form     * MODDAT = name * *END*

       where the * should be replaced with an exclamation point,
       the special delimiter character.

------------------------------------------------------------------------------

INPUT GROUP: 1 -- General run control parameters
--------------

     Starting date:    Year  (ISYR) --    No default   ! ISYR  =  2001 !
                       Month (ISMO) --    No default   ! ISMO  = 1    !
                       Day   (ISDY) --    No default   ! ISDY  = 1    !
                       Hour  (ISHR) --    No default   ! ISHR  = 1    !

     Number of periods to process
                              (NPER) -- No default   ! NPER  = 8760 !

     Number of species to process from CALPUFF runs
                          (NSPECINP) -- No default   ! NSPECINP = 9 !

     Number of species to write to output file
                          (NSPECOUT) -- No default   ! NSPECOUT = 9 !

     Number of species to compute from those modeled
      (must be no greater than NSPECOUT)
                          (NSPECCMP) -- No default   ! NSPECCMP = 0 !

  When multiple files are used, a species name may appear in more than
  one file.  Data for this species will be summed (appropriate if the
  CALPUFF runs use different source groups).  If this summing is not
  appropriate, remove duplicate species from the file(s).
```

```
    Stop run if duplicate species names
    are found? (MDUPLCT)            Default: 0       ! MDUPLCT  =  0  !
       0 = no  (i.e., duplicate species are summed)
       1 = yes (i.e., run is halted)

Data for each species in a CALPUFF data file may also be scaled as
they are read.  This can be done to alter the emission rate of all
sources that were modeled in a particular CALPUFF application.
The scaling factor for each species is entered in Subgroup (2d), for
each file for which scaling is requested.

    Number of CALPUFF data files that will be scaled
    (must be no greater than NFILES)
    (NSCALED)                       Default: 0       ! NSCALED = 0 !


Ammonia-Limiting Method Option to recompute the HNO3/NO3 concentration
partition prior to performing other actions is controlled by MNITRATE.
This option will NOT alter any deposition fluxes contained in the CALPUFF
file(s).  Three partition selections are provided.  The first two are
typically used in sequence (POSTUTIL is run more than once).  The first
selection (MNITRATE=1) computes the partition for the TOTAL (all sources)
concentration fields (SO4, NO3, HNO3; NH3), and the second (MNITRATE=2)
uses this partition (from the previous application of POSTUTIL) to
compute the partition for individual source groups.  The third selection
(MNITRATE=3) can be used instead in a single POSTUTIL application if a
file of background concentrations is provided (BCKGALM in Input Group 0).

Required information for MNITRATE=1 includes:
         species NO3, HNO3, and SO4
         NH3 concentration(s)
         met. data file for RH and T

Required information for MNITRATE=2 includes:
         species NO3 and HNO3 for a source group
         species NO3ALL and HNO3ALL for all source groups, properly
         partitioned

Required information for MNITRATE=3 includes:
         species NO3, HNO3, and SO4 for a source group
         species NO3, HNO3, SO4 and TNH3 from the background BCKGALM file
         If TNH3 is not in the background BCKGALM file, monthly TNH3
         concentrations are used (BCKTNH3)

    Recompute the HNO3/NO3 partition for concentrations?
    (MNITRATE)                     Default: 0       ! MNITRATE  =  1  !
       0 = no
       1 = yes, for all sources combined
       2 = yes, for a source group
       3 = yes, ALM application in one step


SOURCE OF AMMONIA:

Ammonia may be available as a modeled species in the CALPUFF files,
and it may or may not be appropriate to use it for repartitioning NO3/HNO3
(in option MNITRATE=1 or MNITRATE=3).  Its use is contolled by NH3TYP.
When NH3 is listed as a processed species in Subgroup (2a), as one of
the NSPECINP ASPECI entries, and the right option is chosen for NH3TYP,
the NH3 modeled values from the CALPUFF concentration files will be used
in the chemical equilibrium calculation.

NH3TYP also controls when monthly background ammonia values are used.  Both
gaseous (NH3) and total (TNH3) ammonia can be provided monthly as
BCKNH3/BCKTNH3.

    What is the input source of Ammonia?
    (NH3TYP)                       No Default       ! NH3TYP = 3  !
       0 = No background will be used.
           ONLY NH3 from the concentration
           files listed in Subgroup (2a) as
           a processed species will be used.
           (Cannot be used with MNITRATE=3)

       1 = NH3 Monthly averaged background (BCKNH3)
           listed below will be added to NH3 from
           concentration files listed in Subgroup (2a)

       2 = NH3 from background concentration file BCKGALM
           will be added to NH3 from concentration files
           listed in Subgroup (2a)
           (ONLY possible for MNITRATE=3)

       3 = NH3 Monthly averaged background (BCKNH3)
           listed below will be used alone.

       4 = NH3 from background concentration file BCKGALM
```

```
        will be used alone
        (ONLY possible for MNITRATE=3)

    | NH3TYP | NH3 CONC | NH3 FROM BCKNH3 | NH3 FROM BCKGALM |
    |--------|----------|-----------------|------------------|
    |   0    |    X     |        0        |        0         |
    |--------|----------|-----------------|------------------|
    |   1    |    X     |        X        |        0         |
    |--------|----------|-----------------|------------------|
    |   2    |    X     |        0        |        X         |
    |--------|----------|-----------------|------------------|
    |   3    |    0     |        X        |        0         |
    |--------|----------|-----------------|------------------|
    |   4    |    0     |        0        |        X         |
    |--------|----------|-----------------|------------------|


     Default monthly (12 values) background ammonia concentration (ppb)
     used for HNO3/NO3 partition:

      Gaseous NH3 (BCKNH3)            Default: -999
      ! BCKNH3 = 12*0.5 !

      Total TNH3  (BCKTNH3)           Default: -999
      * BCKTNH3 = 1., 1., 1., 1.1, 1.4, 1.3, 1.3, 1.2, 4*1. *

     If a single value is entered, this is used for all 12 months.
     Month 1 is JANUARY, Month 12 is DECEMBER.

!END!
-------------------------------------------------------------------------------

INPUT GROUP: 2 -- Species Processing Information
--------------

-------------
Subgroup (2a)
-------------

  The following NSPECINP species will be processed:

! ASPECI =          SO2 !          !END!
! ASPECI =          SO4 !          !END!
! ASPECI =          NOX !          !END!
! ASPECI =         HNO3 !          !END!
! ASPECI =          NO3 !          !END!
! ASPECI =          SOA !          !END!
! ASPECI =           EC !          !END!
! ASPECI =         SOIL !          !END!
! ASPECI =          PMC !          !END!


-------------
Subgroup (2b)
-------------

  The following NSPECOUT species will be written:

! ASPECO =          SO2 !          !END!
! ASPECO =          SO4 !          !END!
! ASPECO =          NOX !          !END!
! ASPECO =         HNO3 !          !END!
! ASPECO =          NO3 !          !END!
! ASPECO =          SOA !          !END!
! ASPECO =           EC !          !END!
! ASPECO =         SOIL !          !END!
! ASPECO =          PMC !          !END!

-------------
Subgroup (2c)
-------------

  The following NSPECCMP species will be computed by scaling and summing
  one or more of the processed input species.  Identify the name(s) of
  the computed species and provide the scaling factors for each of the
  NSPECINP input species (NSPECCMP groups of NSPECINP+1 lines each):


-------------
Subgroup (2d)
-------------

  Each species in NSCALED CALPUFF data files may be scaled before being
  processed (e.g., to change the emission rate for all sources modeled
  in the run that produced a data file).  For each file, identify the
  file name and then provide the name(s) of the scaled species and the
  corresponding scaling factors (A,B where x' = Ax+B).
```

```
A(Default=1.0)      B(Default=0.0)
--------------      --------------

!END!
```

```
FPL WCEC  3 ON OIL - CALPOST FOR VISIBLITY           EPA  11/14/07
METHOD 2, MNITRATE SET TO 1
4-km FL DOMAIN, 2001, ENP RECEPTORS
---------------- Run title (3 lines) ------------------------------------------

                    CALPOST MODEL CONTROL FILE
                    --------------------------

-------------------------------------------------------------------------------

INPUT GROUP: 0 -- Input and Output File Names
--------------

Input Files
-----------

File                      Default File Name
----                      -----------------
Conc/Dep Flux File        MODEL.DAT           ! MODDAT =..\PUTOILV2.CON  !
Relative Humidity File    VISB.DAT            ! VISDAT =..\..\VISB.DAT  !
Background Data File      BACK.DAT            *BACKDAT =  *
Transmissometer or        VSRN.DAT            *VSRDAT =   *
Nephelometer Data File     or
DATSAV Weather Data File   or
Prognostic Weather  File

Output Files
------------

File                      Default File Name
----                      -----------------
List File                 CALPOST.LST         ! PSTLST =PSTOILV2.LST  !

Pathname for Timeseries Files   (blank)       * TSPATH =    *
(activate with exclamation points only if
providing NON-BLANK character string)

Pathname for Plot Files   (blank)             * PLPATH =    *
(activate with exclamation points only if
 providing NON-BLANK character string)

User Character String (U) to augment default filenames
(activate with exclamation points only if
 providing NON-BLANK character string)

Timeseries           TSERIES_ASPEC_ttHR_CONC_TSUNAM.DAT
Peak Value           PEAKVAL_ASPEC_ttHR_CONC_TSUNAM.DAT

                                              * TSUNAM =    *

Top Nth Rank Plot    RANK(ALL)_ASPEC_ttHR_CONC_TUNAM.DAT
                or   RANK(ii)_ASPEC_ttHR_CONC_TUNAM.GRD

                                              * TUNAM =    *

Exceedance Plot       EXCEED_ASPEC_ttHR_CONC_XUNAM.DAT
                 or   EXCEED_ASPEC_ttHR_CONC_XUNAM.GRD

                                              * XUNAM =    *

Echo Plot
(Specific Days)
           yyyy_Mmm_Ddd_hh00(UTCszzzz)_L00_ASPEC_ttHR_CONC.DAT
     or    yyyy_Mmm_Ddd_hh00(UTCszzzz)_L00_ASPEC_ttHR_CONC.GRD


Visibility Plot       DAILY_VISIB_VUNAM.DAT    ! VUNAM =VTEST    !
(Daily Peak Summary)


Auxiliary Output Files
----------------------

File                      Default File Name
----                      -----------------
Visibility Change         DELVIS.DAT            ! DVISDAT = deciview.dat  !


-------------------------------------------------------------------------------
All file names will be converted to lower case if LCFILES = T
Otherwise, if LCFILES = F, file names will be converted to UPPER CASE
         T = lower case               ! LCFILES = T !
         F = UPPER CASE
NOTE: (1) file/path names can be up to 132 characters in length
NOTE: (2) Filenames for ALL PLOT and TIMESERIES FILES are constructed
          using a template that includes a pathname, user-supplied
          character(s), and context-specific strings, where
```

```
             ASPEC = Species Name
              CONC = CONC Or WFLX Or DFLX Or TFLX
                tt = Averaging Period (e.g. 03)
                ii = Rank (e.g. 02)
                hh = Hour(ending) in LST
             szzzz = LST time zone shift (EST is -0500)
              yyyy = Year(LST)
                mm = Month(LST)
                dd = day of month (LST)
          are determined internally based on selections made below.
          If a path or user-supplied character(s) are supplied, each
          must contain at least 1 non-blank character.

!END!
-------------------------------------------------------------------------------

INPUT GROUP: 1 -- General run control parameters
--------------

     Option to run all periods found
     in the met. file(s)  (METRUN)        Default: 0    ! METRUN =   0  !

         METRUN = 0 - Run period explicitly defined below
         METRUN = 1 - Run all periods in CALPUFF data file(s)

     Starting date:    Year   (ISYR) --    No default   ! ISYR  =  2001   !
     (used only if     Month  (ISMO) --    No default   ! ISMO  =  1   !
      METRUN = 0)      Day    (ISDY) --    No default   ! ISDY  =  1   !
                       Hour   (ISHR) --    No default   ! ISHR  =  1   !

     Number of hours to process (NHRS) -- No default   ! NHRS  =  8760  !

     Process every hour of data?(NREP) -- Default: 1   ! NREP  =  1  !
      (1 = every hour processed,
       2 = every 2nd hour processed,
       5 = every 5th hour processed, etc.)

 Species & Concentration/Deposition Information
 ----------------------------------------------

      Species to process (ASPEC)       -- No default   ! ASPEC = VISIB !
      (ASPEC = VISIB for visibility processing)

      Layer/deposition code (ILAYER)   -- Default: 1   ! ILAYER = 1 !
        '1'  for CALPUFF concentrations,
        '-1' for dry deposition fluxes,
        '-2' for wet deposition fluxes,
        '-3' for wet+dry deposition fluxes.

      Scaling factors of the form:     -- Defaults:    ! A =  0.0    !
            X(new) = X(old) * A + B        A = 0.0     ! B =  0.0    !
        (NOT applied if A = B = 0.0)       B = 0.0

      Add Hourly Background Concentrations/Fluxes?
                               (LBACK)  -- Default: F   ! LBACK =  F !

 Source information
 ------------------

   Option to process source contributions:
          0 =  Process only total reported contributions
          1 =  Sum all individual source contributions and process
          2 =  Run in TRACEBACK mode to identify source
               contributions at a SINGLE receptor
                              (MSOURCE) -- Default: 0   ! MSOURCE =  0  !

 Receptor information
 --------------------

   Gridded receptors processed?    (LG) -- Default: F   ! LG  = F  !
   Discrete receptors processed?   (LD) -- Default: F   ! LD  = T  !
   CTSG Complex terrain receptors processed?
                                  (LCT) -- Default: F   ! LCT = F  !

 --Report results by DISCRETE receptor RING?
   (only used when LD = T)      (LDRING) -- Default: F   ! LDRING = F  !

 --Select range of DISCRETE receptors (only used when LD = T):

   Select ALL DISCRETE receptors by setting NDRECP flag to -1;
                                    OR
   Select SPECIFIC DISCRETE receptors by entering a flag (0,1) for each
      0 = discrete receptor not processed
      1 = discrete receptor processed
   using repeated value notation to select blocks of receptors:
      23*1, 15*0, 12*1
   Flag for all receptors after the last one assigned is set to 0
   (NDRECP) -- Default: -1
```

```
  ! NDRECP = -1 !

--Select range of GRIDDED receptors (only used when LG = T):

       X index of LL corner (IBGRID) -- Default: -1     ! IBGRID = -1  !
           (-1 OR 1 <= IBGRID <= NX)

       Y index of LL corner (JBGRID) -- Default: -1     ! JBGRID = -1  !
           (-1 OR 1 <= JBGRID <= NY)

       X index of UR corner (IEGRID) -- Default: -1     ! IEGRID = -1  !
           (-1 OR 1 <= IEGRID <= NX)

       Y index of UR corner (JEGRID) -- Default: -1     ! JEGRID = -1  !
           (-1 OR 1 <= JEGRID <= NY)

  Note: Entire grid is processed if IBGRID=JBGRID=IEGRID=JEGRID=-1


--Specific gridded receptors can also be excluded from CALPOST
  processing by filling a processing grid array with 0s and 1s.  If the
  processing flag for receptor index (i,j) is 1 (ON), that receptor
  will be processed if it lies within the range delineated by IBGRID,
  JBGRID,IEGRID,JEGRID and if LG=T. If it is 0 (OFF), it will not be
  processed in the run.  By default, all array values are set to 1 (ON).

  Number of gridded receptor rows provided in Subgroup (1a) to
  identify specific gridded receptors to process
                          (NGONOFF) -- Default: 0      ! NGONOFF =  0  !

!END!


--------------
Subgroup (1a) -- Specific gridded receptors included/excluded
--------------

    Specific gridded receptors are excluded from CALPOST processing
    by filling a processing grid array with 0s and 1s.  A total of
    NGONOFF lines are read here.  Each line corresponds to one 'row'
    in the sampling grid, starting with the NORTHERNMOST row that
    contains receptors that you wish to exclude, and finishing with
    row 1 to the SOUTH (no intervening rows may be skipped).  Within
    a row, each receptor position is assigned either a 0 or 1,
    starting with the westernmost receptor.
       0 = gridded receptor not processed
       1 = gridded receptor processed

    Repeated value notation may be used to select blocks of receptors:
       23*1, 15*0, 12*1

    Because all values are initially set to 1, any receptors north of
    the first row entered, or east of the last value provided in a row,
    remain ON.

    (NGXRECP) -- Default: 1


-------------------------------------------------------------------------------

INPUT GROUP: 2 -- Visibility Parameters (ASPEC = VISIB)
--------------

    Identify the Base Time Zone for the CALPUFF simulation
                             (BTZONE) -- No default    ! BTZONE =  5.!

    Particle growth curve f(RH) for hygroscopic species
                               (MFRH) -- Default: 2    ! MFRH    =  3  !

        1 =  IWAQM (1998) f(RH) curve (originally used with MVISBK=1)
        2 =  FLAG (2000) f(RH) tabulation
        3 =  EPA (2003) f(RH) tabulation

    Maximum relative humidity (%) used in particle growth curve
                             (RHMAX) -- Default: 98    ! RHMAX  = 95.0 !

    Modeled species to be included in computing the light extinction
     Include SULFATE?          (LVSO4) -- Default: T    ! LVSO4   = T  !
     Include NITRATE?          (LVNO3) -- Default: T    ! LVNO3   = T  !
     Include ORGANIC CARBON?   (LVOC)  -- Default: T    ! LVOC    = T  !
     Include COARSE PARTICLES? (LVPMC) -- Default: T    ! LVPMC   = T  !
     Include FINE PARTICLES?   (LVPMF) -- Default: T    ! LVPMF   = T  !
     Include ELEMENTAL CARBON? (LVEC)  -- Default: T    ! LVEC    = T  !

    And, when ranking for TOP-N, TOP-50, and Exceedance tables,
     Include BACKGROUND?       (LVBK)  -- Default: T    ! LVBK    = F  !
```

```
    Species name used for particulates in MODEL.DAT file
                  COARSE     (SPECPMC) -- Default: PMC ! SPECPMC = PMC !
                  FINE       (SPECPMF) -- Default: PMF ! SPECPMF = SOIL !

Extinction Efficiency (1/Mm per ug/m**3)
----------------------------------------
    MODELED particulate species:
               PM  COARSE      (EEPMC)  -- Default: 0.6 ! EEPMC   = 0.6 !
               PM  FINE        (EEPMF)  -- Default: 1.0 ! EEPMF   = 1.0 !
    BACKGROUND particulate species:
               PM  COARSE    (EEPMCBK)  -- Default: 0.6 ! EEPMCBK = 0.6 !
    Other species:
              AMMONIUM SULFATE (EESO4)  -- Default: 3.0 ! EESO4   = 3.0 !
              AMMONIUM NITRATE (EENO3)  -- Default: 3.0 ! EENO3   = 3.0 !
              ORGANIC CARBON   (EEOC)   -- Default: 4.0 ! EEOC    = 4.0 !
              SOIL             (EESOIL) -- Default: 1.0 ! EESOIL  = 1.0 !
              ELEMENTAL CARBON (EEEC)   -- Default: 10. ! EEEC    = 10.0 !

Background Extinction Computation
---------------------------------

    Method used for the 24h-average of percent change of light extinction:
    Hourly ratio of source light extinction / background light extinction
    is averaged?               (LAVER) -- Default: F   ! LAVER = F  !


    Method used for background light extinction
                              (MVISBK) -- Default: 2    ! MVISBK =  2  !

         1 =  Supply single light extinction and hygroscopic fraction
               - Hourly F(RH) adjustment applied to hygroscopic background
                 and modeled sulfate and nitrate
         2 =  Compute extinction from speciated PM measurements (A)
               - Hourly F(RH) adjustment applied to observed and modeled sulfate
                 and nitrate
               - F(RH) factor is capped at F(RHMAX)
         3 =  Compute extinction from speciated PM measurements (B)
               - Hourly F(RH) adjustment applied to observed and modeled sulfate
                 and nitrate
               - Receptor-hour excluded if RH>RHMAX
               - Receptor-day excluded if fewer than 6 valid receptor-hours
         4 =  Read hourly transmissometer background extinction measurements
               - Hourly F(RH) adjustment applied to modeled sulfate and nitrate
               - Hour excluded if measurement invalid (missing, interference,
                 or large RH)
               - Receptor-hour excluded if RH>RHMAX
               - Receptor-day excluded if fewer than 6 valid receptor-hours
         5 =  Read hourly nephelometer background extinction measurements
               - Rayleigh extinction value (BEXTRAY) added to measurement
               - Hourly F(RH) adjustment applied to modeled sulfate and nitrate
               - Hour excluded if measurement invalid (missing, interference,
                 or large RH)
               - Receptor-hour excluded if RH>RHMAX
               - Receptor-day excluded if fewer than 6 valid receptor-hours
         6 =  Compute extinction from speciated PM measurements
               - FLAG monthly RH adjustment factor applied to observed and
                 modeled sulfate and nitrate
         7 =  Use observed weather or prognostic weather information for
              background extinction during weather events; otherwise, use Method 2
               - Hourly F(RH) adjustment applied to modeled sulfate and nitrate
               - F(RH) factor is capped at F(RHMAX)
               - During observed weather events, compute Bext from visual range
                 if using an observed weather data file, or
               - During prognostic weather events, use Bext from the prognostic
                 weather file
               - Use Method 2 for hours without a weather event

     Additional inputs used for MVISBK = 1:
     --------------------------------------
      Background light extinction (1/Mm)
                               (BEXTBK) -- No default    ! BEXTBK = 0.0 !
      Percentage of particles affected by relative humidity
                               (RHFRAC) -- No default    ! RHFRAC = 0.0 !

     Additional inputs used for MVISBK = 6:
     --------------------------------------
      Extinction coefficients for hygroscopic species (modeled and
      background) are computed using a monthly RH adjustment factor
      in place of an hourly RH factor (VISB.DAT file is NOT needed).
      Enter the 12 monthly factors here (RHFAC).  Month 1 is January.

      (RHFAC)  -- No default     ! RHFAC = 3.5, 3.2, 3.1, 3.0,
                                           3.0, 3.5, 3.5, 3.7,
                                           3.7, 3.5, 3.4, 3.6 !

 USED MVISBK = 6, DAILY EXTINCTIONS CALCULATED FROM MONTHLY F(RH) FROM TABLE A-2
 IN "GUIDANCE FOR ESTIMATING NATURAL VISIBLITY CONDITIONS UNDER THE REGIONAL
 HAZE RULE (EPA, 2003)".
```

```
    Additional inputs used for MVISBK = 7:
    --------------------------------------
     The weather data file (DATSAV abbreviated space-delimited) that
     is identified as VSRN.DAT may contain data for more than one
     station.  Identify the stations that are needed in the order in
     which they will be used to obtain valid weather and visual range.
     The first station that contains valid data for an hour will be
     used.  Enter up to MXWSTA (set in PARAMS file) integer station IDs
     of up to 6 digits each as variable IDWSTA, and enter the corresponding
     time zone for each, as variable TZONE (= UTC-LST).

     A prognostic weather data file with Bext for weather events may be used
     in place of the observed weather file.  Identify this as the VSRN.DAT
     file and use a station ID of IDWSTA = 999999, and TZONE = 0.

     NOTE:  TZONE identifies the time zone used in the dataset.  The
            DATSAV abbreviated space-delimited data usually are prepared
            with UTC time rather than local time, so TZONE is typically
            set to zero.

     (IDWSTA)    -- No default
    ! IDWSTA = 690230 ,80020 ,80140 !
     (TZONE)     -- No default
    ! TZONE  = 0.0 ,0.0 ,0.0 !


    Additional inputs used for MVISBK = 2,3,6,7:
    --------------------------------------------
     Background extinction coefficients are computed from monthly
     CONCENTRATIONS of ammonium sulfate (BKSO4), ammonium nitrate (BKNO3),
     coarse particulates (BKPMC), organic carbon (BKOC), soil (BKSOIL), and
     elemental carbon (BKEC).  Month 1 is January.
     (ug/m**3)

EXTINCTIONS FOR THE ENP ARE PROVIDED IN THE FLAG DOCUMENT (12/00)
NON-HYGROSCOPIC - 8.5
HYGROSCOPIC -  0.9/3 = 0.3
USED MVISBK = 6, DAILY EXTINCTIONS CALCULATED FROM MONTHLY RH FACTORS PROVIDED

     (BKSO4)   -- No default     ! BKSO4 = 0.3, 0.3, 0.3, 0.3,
                                           0.3, 0.3, 0.3, 0.3,
                                           0.3, 0.3, 0.3, 0.3 !
     (BKNO3)   -- No default     ! BKNO3 = 0.0, 0.0, 0.0, 0.0,
                                           0.0, 0.0, 0.0, 0.0,
                                           0.0, 0.0, 0.0, 0.0 !
     (BKPMC)   -- No default     ! BKPMC = 0.0, 0.0, 0.0, 0.0,
                                           0.0, 0.0, 0.0, 0.0,
                                           0.0, 0.0, 0.0, 0.0 !
     (BKOC)    -- No default     ! BKOC  = 0.0, 0.0, 0.0, 0.0,
                                           0.0, 0.0, 0.0, 0.0,
                                           0.0, 0.0, 0.0, 0.0 !
     (BKSOIL)  -- No default     ! BKSOIL= 8.5, 8.5, 8.5, 8.5,
                                           8.5, 8.5, 8.5, 8.5,
                                           8.5, 8.5, 8.5, 8.5 !
     (BKEC)    -- No default     ! BKEC  = 0.0, 0.0, 0.0, 0.0,
                                           0.0, 0.0, 0.0, 0.0,
                                           0.0, 0.0, 0.0, 0.0 !

    Additional inputs used for MVISBK = 2,3,5,6,7:
    ----------------------------------------------
     Extinction due to Rayleigh scattering is added (1/Mm)
                             (BEXTRAY) -- Default: 10.0 ! BEXTRAY = 10.0 !

RAYLEIGH SCATTERING TAKEN FROM TABLE A2 OF THE "REVISED IMPROVE ALGORITHM FOR ESTIMATING
LIGHT EXTINCTION FROM PARTICLE SPECIATION DATA".

!END!
-------------------------------------------------------------------------------

INPUT GROUP: 3 -- Output options
--------------

Documentation
-------------

    Documentation records contained in the header of the
    CALPUFF output file may be written to the list file.
    Print documentation image?
                                 (LDOC) -- Default: F   !  LDOC =  F  !

Output Units
------------
    Units for All Output        (IPRTU) -- Default: 1   ! IPRTU =  1   !
                     for              for
                 Concentration     Deposition
       1 =          g/m**3          g/m**2/s
       2 =         mg/m**3         mg/m**2/s
```

```
       3 =        ug/m**3        ug/m**2/s
       4 =        ng/m**3        ng/m**2/s
       5 =      Odour Units

    Visibility: extinction expressed in 1/Mega-meters (IPRTU is ignored)


Averaging time(s) reported
-------------------------

    1-hr averages           (L1HR) -- Default: T   !   L1HR = F  !

    3-hr averages           (L3HR) -- Default: T   !   L3HR = F  !

    24-hr averages         (L24HR) -- Default: T   !  L24HR = T  !

    Run-length averages    (LRUNL) -- Default: T   !  LRUNL = F  !

    User-specified averaging time in hours - results for
    an averaging time of NAVG hours are reported for
    NAVG greater than 0:
                             (NAVG) -- Default: 0   !   NAVG =  0  !


Types of tabulations reported
-----------------------------

   1) Visibility: daily visibility tabulations are always reported
                  for the selected receptors when ASPEC = VISIB.
                  In addition, any of the other tabulations listed
                  below may be chosen to characterize the light
                  extinction coefficients.
                  [List file or Plot/Analysis File]


   2) Top 50 table for each averaging time selected
      [List file only]
                             (LT50) -- Default: T   !   LT50 = T  !

   3) Top 'N' table for each averaging time selected
      [List file or Plot file]
                           (LTOPN) -- Default: F   !  LTOPN = F  !

        -- Number of 'Top-N' values at each receptor
           selected (NTOP must be <= 4)
                             (NTOP) -- Default: 4   ! NTOP =  2   !

        -- Specific ranks of 'Top-N' values reported
           (NTOP values must be entered)
                  (ITOP(4) array) -- Default:      ! ITOP =  1,2  !
                                     1,2,3,4


   4) Threshold exceedance counts for each receptor and each averaging
      time selected
      [List file or Plot file]
                           (LEXCD) -- Default: F   !  LEXCD = F  !

        -- Identify the threshold for each averaging time by assigning a
           non-negative value (output units).

                                     -- Default: -1.0
           Threshold for  1-hr averages   (THRESH1) !  THRESH1 = -1.0  !
           Threshold for  3-hr averages   (THRESH3) !  THRESH3 = -1.0  !
           Threshold for 24-hr averages  (THRESH24) ! THRESH24 = -1.0  !
           Threshold for NAVG-hr averages (THRESHN) !  THRESHN = -1.0  !


        -- Counts for the shortest averaging period selected can be
           tallied daily, and receptors that experience more than NCOUNT
           counts over any NDAY period will be reported.  This type of
           exceedance violation output is triggered only if NDAY > 0.

           Accumulation period(Days)
                              (NDAY) -- Default: 0   !    NDAY =  0  !
           Number of exceedances allowed
                            (NCOUNT) -- Default: 1   !  NCOUNT =  1  !


   5) Selected day table(s)

      Echo Option -- Many records are written each averaging period
      selected and output is grouped by day
      [List file or Plot file]
                           (LECHO) -- Default: F   !  LECHO = F  !

      Timeseries Option -- Averages at all selected receptors for
      each selected averaging period are written to timeseries files.
```

```
      Each file contains one averaging period, and all receptors are
      written to a single record each averaging time.
      [TSERIES_ASPEC_ttHR_CONC_TSUNAM.DAT files]
                              (LTIME) -- Default: F   !  LTIME = F  !

      Peak Value Option -- Averages at all selected receptors for
      each selected averaging period are screened and the peak value
      each period is written to timeseries files.
      Each file contains one averaging period.
      [PEAKVAL_ASPEC_ttHR_CONC_TSUNAM.DAT files]
                              (LPEAK) -- Default: F   !  LPEAK = F  !

        -- Days selected for output
                         (IECHO(366)) -- Default: 366*0
           ! IECHO  = 366*0  !
           (366 values must be entered)

Plot output options
-------------------

     Plot files can be created for the Top-N, Exceedance, and Echo
     tables selected above.  Two formats for these files are available,
     DATA and GRID.  In the DATA format, results at all receptors are
     listed along with the receptor location [x,y,val1,val2,...].
     In the GRID format, results at only gridded receptors are written,
     using a compact representation.  The gridded values are written in
     rows (x varies), starting with the most southern row of the grid.
     The GRID format is given the .GRD extension, and includes headers
     compatible with the SURFER(R) plotting software.

     A plotting and analysis file can also be created for the daily
     peak visibility summary output, in DATA format only.

     Generate Plot file output in addition to writing tables
     to List file?
                                   (LPLT) -- Default: F   ! LPLT   = F !

     Use GRID format rather than DATA format,
     when available?
                                   (LGRD) -- Default: F   ! LGRD   = F !


Auxiliary Output Files (for subsequent analyses)
------------------------------------------------

      Visibility

      A separate output file may be requested that contains the change
      in visibility at each selected receptor when ASPEC = VISIB.  This
      file can be processed to construct visibility measures that are
      not available in CALPOST.

      Output file with the visibility change at each receptor?
                                  (MDVIS) -- Default: 0   ! MDVIS   = 0 !

           0 =  Do Not create file
           1 =  Create file of DAILY (24 hour) Delta-Deciview
           2 =  Create file of DAILY (24 hour) Extinction Change (%)
           3 =  Create file of HOURLY Delta-Deciview
           4 =  Create file of HOURLY Extinction Change (%)


Additional Debug Output
-----------------------

   Output selected information to List file
    for debugging?
                                 (LDEBUG) -- Default: F  ! LDEBUG   = F !

   Output hourly extinction information to REPORT.HRV?
    (Visibility Method 7)
                                (LVEXTHR) -- Default: F  ! LVEXTHR = F !

!END!
```

```
                     POSTBOB by Golder Associates
                            Version 060502

CALPOST LIST FILENAME : PSTOILV2.LST

** FPL WCEC 3 ON OIL - CALPOST FOR VISIBLITY             EPA  11/14/07
** METHOD 2, MNITRATE SET TO 1
** 4-km FL DOMAIN, 2001, ENP RECEPTORS

PERCENT      RECEPTOR  RECEPTOR LOCATION     PERIOD
 CHANGE      NUMBER    X(KM)     Y(KM)      (YYMMDDHE)
------------------------------------------------------------------------------


 VISIBILITY SUMMARY: MAX CHANGE=  1.62 % -- DAYS OVER 5%/10% =    0/  0
******************************************************************************
CALPOST LIST FILENAME : PSTGASV2.LST

** FPL WCEC 3 ON GAS WITH DF - CALPOST FOR VISIBLITY             EPA  11/13/07
** METHOD 2, MNITRATE SET = 1
** 4-km FL DOMAIN, 2001, ENP RECEPTORS

PERCENT      RECEPTOR  RECEPTOR LOCATION     PERIOD
 CHANGE      NUMBER    X(KM)     Y(KM)      (YYMMDDHE)
------------------------------------------------------------------------------


 VISIBILITY SUMMARY: MAX CHANGE=  1.40 % -- DAYS OVER 5%/10% =    0/  0
******************************************************************************
                     POSTBOB by Golder Associates
                            Version 060502

CALPOST LIST FILENAME : PSTOILV2.LST

** FPL WCEC 3 ON OIL - CALPOST FOR VISIBLITY             EPA  11/14/07
** METHOD 2, MNITRATE SET TO 1
** 4-km FL DOMAIN, 2002, ENP RECEPTORS

PERCENT      RECEPTOR  RECEPTOR LOCATION     PERIOD
 CHANGE      NUMBER    X(KM)     Y(KM)      (YYMMDDHE)
------------------------------------------------------------------------------


 VISIBILITY SUMMARY: MAX CHANGE=  3.43 % -- DAYS OVER 5%/10% =    0/  0
******************************************************************************
CALPOST LIST FILENAME : PSTGASV2.LST

** FPL WCEC 3 ON GAS WITH DF - CALPOST FOR VISIBLITY             EPA  11/13/07
** METHOD 2, MNITRATE SET = 1
** 4-km FL DOMAIN, 2002, ENP RECEPTORS

PERCENT      RECEPTOR  RECEPTOR LOCATION     PERIOD
 CHANGE      NUMBER    X(KM)     Y(KM)      (YYMMDDHE)
------------------------------------------------------------------------------


 VISIBILITY SUMMARY: MAX CHANGE=  2.15 % -- DAYS OVER 5%/10% =    0/  0
******************************************************************************
                     POSTBOB by Golder Associates
                            Version 060502

CALPOST LIST FILENAME : PSTOILV2.LST

** FPL WCEC 3 ON OIL - CALPOST FOR VISIBLITY             EPA  11/14/07
** METHOD 2, MNITRATE SET TO 1
** 4-km FL DOMAIN, 2003, ENP RECEPTORS

PERCENT      RECEPTOR  RECEPTOR LOCATION     PERIOD
 CHANGE      NUMBER    X(KM)     Y(KM)      (YYMMDDHE)
------------------------------------------------------------------------------


 VISIBILITY SUMMARY: MAX CHANGE=  2.00 % -- DAYS OVER 5%/10% =    0/  0
******************************************************************************
CALPOST LIST FILENAME : PSTGASV2.LST

** FPL WCEC 3 ON GAS WITH DF - CALPOST FOR VISIBLITY             EPA  11/13/07
** METHOD 2, MNITRATE SET = 1
** 4-km FL DOMAIN, 2003, ENP RECEPTORS

PERCENT      RECEPTOR  RECEPTOR LOCATION     PERIOD
 CHANGE      NUMBER    X(KM)     Y(KM)      (YYMMDDHE)
------------------------------------------------------------------------------


 VISIBILITY SUMMARY: MAX CHANGE=  1.72 % -- DAYS OVER 5%/10% =    0/  0
******************************************************************************
```

CALPUFF

DEPOSITION POSTUTIL
CALPOST
AND
SUMMARY FILES

```
FPL WCEC 3  POSTUTIL FOR DEPOSITION IMPACTS         EPA     9/13/07
901 ENP RECEPTORS
4-km FL DOMAIN, 2001

---------------- Run title (3 lines) ------------------------------------------

                    POSTUTIL MODEL CONTROL FILE
                    ---------------------------

-------------------------------------------------------------------------------

INPUT GROUP: 0 -- Input and Output File Names
--------------

-------------
Subgroup (0a)
-------------

Output Files
------------

 File            Default File Name
 ----            -----------------
 List File       POSTUTIL.LST       ! UTLLST =PUTDEP.LST   !
 Data File       MODEL.DAT          ! UTLDAT =PUTDEP.DEP   !


Input Files
-----------

 Meteorological data files are needed for the HNO3/NO3 partition option.
 The met data file is the 'CALMET.DAT' format file used in the CALPUFF
 simulation.  If multiple CALMET files had been used in sequence, you
 may list all of these files in subgroup 0b.  Specify the total number
 of CALMET files runs you need to use, and provide the filename for each
 in subgroup 0b.

     Number of CALMET data files (NFILES)
                                Default: 0       ! NMET    = 0   !


 A number of CALPUFF data files may be processed in this application.
 The files may represent individual CALPUFF simulations that were made
 for a specific set of species and/or sources.  Specify the total number
 of CALPUFF runs you wish to combine, and provide the filename for each
 in subgroup 0b.

     Number of CALPUFF data files (NFILES)
                                Default: 1       ! NFILES  = 4   !


 All filenames will be converted to lower case if LCFILES = T
 Otherwise, if LCFILES = F, filenames will be converted to UPPER CASE

     Convert filenames to lower case? Default: T     ! LCFILES = T !
         T = lower case
         F = UPPER CASE

!END!

----------------------------------------------------------
 NOTE: file/path names can be up to 70 characters in length
----------------------------------------------------------

-------------
Subgroup (0b)
-------------

NMET CALMET Data Files:

Input File       Default File Name
----------       -----------------
   1             MET.DAT            * UTLMET =CALMET.DAT  * *END*


Input File       Default File Name
----------       -----------------
   1             CALPUFF.DAT        ! MODDAT =..\PUFFOIL.DRY  ! !END!
   2             CALPUFF.DAT        ! MODDAT =..\PUFFOIL.WET  ! !END!
   1             CALPUFF.DAT        ! MODDAT =..\PUFFGAS.DRY  ! !END!
   2             CALPUFF.DAT        ! MODDAT =..\PUFFGAS.WET  ! !END!


-------------
Note:  provide NMET lines of the form    * UTLMET = name * *END*
       and NFILES lines of the form      * MODDAT = name * *END*
       where the * should be replaced with an exclamation point,
       the special delimiter character.
```

```
--------------------------------------------------------------------------------

INPUT GROUP: 1 -- General run control parameters
--------------

     Starting date:    Year  (ISYR) --    No default   ! ISYR  =  2001 !
                       Month (ISMO) --    No default   ! ISMO  = 1    !
                       Day   (ISDY) --    No default   ! ISDY  = 1    !
                       Hour  (ISHR) --    No default   ! ISHR  = 1    !

     Number of periods to process
                             (NPER) -- No default    ! NPER  = 8760 !

     Number of species to process from CALPUFF runs
                         (NSPECINP) -- No default    ! NSPECINP = 6 !

     Number of species to write to output file
                         (NSPECOUT) -- No default    ! NSPECOUT = 2 !

     Number of species to compute from those modeled
     (must be no greater than NSPECOUT)
                         (NSPECCMP) -- No default    ! NSPECCMP = 2 !


 When multiple files are used, a species name may appear in more than
 one file.  Data for this species will be summed (appropriate if the
 CALPUFF runs use different source groups).  If this summing is not
 appropriate, remove duplicate species from the file(s).

     Stop run if duplicate species names
     are found? (MDUPLCT)            Default: 0      ! MDUPLCT  =  0   !
        0 = no  (i.e., duplicate species are summed)
        1 = yes (i.e., run is halted)

 Data for each species in a CALPUFF data file may also be scaled as
 they are read.  This can be done to alter the emission rate of all
 sources that were modeled in a particular CALPUFF application.
 The scaling factor for each species is entered in Subgroup (2d), for
 each file for which scaling is requested.

     Number of CALPUFF data files that will be scaled
     (must be no greater than NFILES)
     (NSCALED)                       Default: 0      ! NSCALED = 4 !


 Option to recompute the HNO3/NO3 concentration partition prior to
 performing other actions.  This option will NOT alter any deposition
 fluxes contained in the CALPUFF file(s).  Two partition selections
 are provided.  The first (MNITRATE=1) computes the partition for the
 TOTAL (all sources) concentration fields (SO4, NO3, HNO3; NH3), and
 the second (MNITRATE=2) uses this partition (from a previous application
 of POSTUTIL) to compute the partition for individual source groups.

 Required information for MNITRATE=1 includes:
          species NO3, HNO3, and SO4
          NH3 concentration(s)
          met. data file for RH and T

 Required information for MNITRATE=2 includes:
          species NO3 and HNO3 for a source group
          species NO3ALL and HNO3ALL for all source groups, properly
                  partitioned

     Recompute the HNO3/NO3 partition for concentrations?
     (MNITRATE)                      Default: 0      ! MNITRATE  =  0   !
        0 = no
        1 = yes, for all sources combined
        2 = yes, for a source group

     Ammonia concentrations may be available as a modeled species in
     the CALPUFF files.  When NH3 is listed as a processed species in
     Subgroup (2a) (as one of the NSPECINP ASPECI entries), the
     modeled values will be used in the chemical equilibrium calculation.
     If NH3 is not on this list, the default background value listed
     below will be used.
     Default ammonia concentration (ppb) used for HNO3/NO3 partition:
     (BCKNH3) in ppb                 Default: 10.     ! BCKNH3 = 0.5 !

 !END!
--------------------------------------------------------------------------------

 INPUT GROUP: 2 -- Species Processing Information
 --------------

 -------------
 Subgroup (2a)
```

```
-------------

  The following NSPECINP species will be processed:

! ASPECI =          SO2 !         !END!
! ASPECI =          SO4 !         !END!
! ASPECI =          NOX !         !END!
! ASPECI =         HNO3 !         !END!
! ASPECI =          NO3 !         !END!
! ASPECI =         PM10 !         !END!


-------------
Subgroup (2b)
-------------

  The following NSPECOUT species will be written:

! ASPECO =            N !         !END!
! ASPECO =            S !         !END!

-------------
Subgroup (2c)
-------------

  The following NSPECCMP species will be computed by scaling and summing
  one or more of the processed input species.  Identify the name(s) of
  the computed species and provide the scaling factors for each of the
  NSPECINP input species (NSPECCMP groups of NSPECINP+1 lines each):


! CSPECCMP =        N !
!      SO2  =     0.0 !
!      SO4  =     0.292 !
!      NOX  =     0.304 !
!     HNO3  =     0.222 !
!      NO3  =     0.452 !
!     PM10  =     0.0 !
!END!

! CSPECCMP =        S !
!      SO2  =     0.500 !
!      SO4  =     0.333 !
!      NOX  =     0.0 !
!     HNO3  =     0.0 !
!      NO3  =     0.0 !
!     PM10  =     0.0 !
!END!

-------------
Subgroup (2d)
-------------

  Each species in NSCALED CALPUFF data files may be scaled before being
  processed (e.g., to change the emission rate for all sources modeled
  in the run that produced a data file).  For each file, identify the
  file name and then provide the name(s) of the scaled species and the
  corresponding scaling factors (A,B where x' = Ax+B).

               A(Default=1.0)      B(Default=0.0)
               --------------      --------------

OIL FIRING = 500 HOURS/YEAR = 5.7% OF YEAR
GAS FIRING = 8260 HOURS/YEAR = 94.3% OF YEAR

! MODDAT =..\PUFFOIL.DRY  !
!      SO2 =    0.057,                 0.0    !
!      SO4 =    0.057,                 0.0    !
!      NOX =    0.057,                 0.0    !
!     HNO3 =    0.057,                 0.0    !
!      NO3 =    0.057,                 0.0    !
!     PM10 =    0.057,                 0.0    !
!END!

! MODDAT =..\PUFFOIL.WET  !
!      SO2 =    0.057,                 0.0    !
!      SO4 =    0.057,                 0.0    !
!      NOX =    0.057,                 0.0    !
!     HNO3 =    0.057,                 0.0    !
!      NO3 =    0.057,                 0.0    !
!     PM10 =    0.057,                 0.0    !
!END!

! MODDAT =..\PUFFGAS.DRY  !
!      SO2 =    0.943,                 0.0    !
!      SO4 =    0.943,                 0.0    !
!      NOX =    0.943,                 0.0    !
!     HNO3 =    0.943,                 0.0    !
```

```
!       NO3 =      0.943,                    0.0    !
!      PM10 =      0.943,                    0.0    !
!END!

! MODDAT =..\PUFFGAS.WET   !
!       SO2 =      0.943,                    0.0    !
!       SO4 =      0.943,                    0.0    !
!       NOX =      0.943,                    0.0    !
!      HNO3 =      0.943,                    0.0    !
!       NO3 =      0.943,                    0.0    !
!      PM10 =      0.943,                    0.0    !
!END!
```

```
FPL WCEC 3 - CALPOST N DEPOSITION IMPACTS   EPA   9/13/07
901 ENP RECEPTORS
4-km FL DOMAIN, 2001
---------------- Run title (3 lines) ------------------------------------------

                    CALPOST MODEL CONTROL FILE
                    --------------------------

-------------------------------------------------------------------------------

INPUT GROUP: 0 -- Input and Output File Names
--------------

Input Files
-----------

File                      Default File Name
----                      -----------------
Conc/Dep Flux File        MODEL.DAT           ! MODDAT =..\PUTDEP.DEP  !
Relative Humidity File    VISB.DAT            * VISDAT =               *
Background Data File      BACK.DAT            *BACKDAT =   *
Transmissometer/          VSRN.DAT            *VSRDAT =   *
Nephelometer Data File

Output Files
------------

File                      Default File Name
----                      -----------------
List File                 CALPOST.LST         ! PSTLST =PSTNDEP.LST  !

Pathname for Timeseries Files   (blank)       * TSPATH =   *
(activate with exclamation points only if
providing NON-BLANK character string)

Pathname for Plot Files   (blank)             * PLPATH =   *
(activate with exclamation points only if
 providing NON-BLANK character string)

User Character String (U) to augment default filenames
(activate with exclamation points only if
 providing NON-BLANK character string)

Timeseries                TSttUUUU.DAT        * TSUNAM =   *

Top Nth Rank Plot         RttUUUUU.DAT
                     or   RttiiUUU.GRD        * TUNAM =   *

Exceedance Plot           XttUUUUU.DAT
                     or   XttUUUUU.GRD        * XUNAM =   *

Echo Plot                 jjjtthhU.DAT
(Specific Days)      or   jjjtthhU.GRD        * EUNAM =   *

Visibility Plot           V24UUUUU.DAT        * VUNAM =   *
(Daily Peak Summary)

-------------------------------------------------------------------------------
All file names will be converted to lower case if LCFILES = T
Otherwise, if LCFILES = F, file names will be converted to UPPER CASE
         T = lower case      ! LCFILES = T !
         F = UPPER CASE
NOTE: (1) file/path names can be up to 70 characters in length
NOTE: (2) Filenames for ALL PLOT and TIMESERIES FILES are constructed
          using a template that includes a pathname, user-supplied
          character(s), and fixed strings (tt,ii,jjj, and hh), where
                tt = Averaging Period (e.g. 03)
                ii = Rank (e.g. 02)
                jjj= Julian Day
                hh = Hour(ending)
          are determined internally based on selections made below.
          If a path or user-supplied character(s) are supplied, each
          must contain at least 1 non-blank character.

!END!
-------------------------------------------------------------------------------

INPUT GROUP: 1 -- General run control parameters
--------------

     Option to run all periods found
     in the met. file(s)  (METRUN)       Default: 0   ! METRUN =   0  !

         METRUN = 0 - Run period explicitly defined below
         METRUN = 1 - Run all periods in CALPUFF data file(s)

     Starting date:    Year  (ISYR) --    No default   ! ISYR  =  2001   !
     (used only if     Month (ISMO) --    No default   ! ISMO  =  1   !
```

```
      METRUN = 0)        Day    (ISDY) --    No default    ! ISDY  =  1    !
                         Hour   (ISHR) --    No default    ! ISHR  =  1    !

     Number of hours to process (NHRS) -- No default   ! NHRS  =  8760  !

     Process every hour of data?(NREP) -- Default: 1   ! NREP  =  1  !
      (1 = every hour processed,
       2 = every 2nd hour processed,
       5 = every 5th hour processed, etc.)

Species & Concentration/Deposition Information
----------------------------------------------

      Species to process (ASPEC)       -- No default   ! ASPEC = N !
      (ASPEC = VISIB for visibility processing)

      Layer/deposition code (ILAYER)   -- Default: 1   ! ILAYER = -3 !
        '1'  for CALPUFF concentrations,
        '-1' for dry deposition fluxes,
        '-2' for wet deposition fluxes,
        '-3' for wet+dry deposition fluxes.

      Scaling factors of the form:     -- Defaults:    ! A =  0.0    !
           X(new) = X(old) * A + B         A = 0.0     ! B =  0.0    !
        (NOT applied if A = B = 0.0)       B = 0.0

      Add Hourly Background Concentrations/Fluxes?
                              (LBACK)  -- Default: F   ! LBACK =  F !

Receptor information
--------------------

   Gridded receptors processed?    (LG) -- Default: F    ! LG   = F  !
   Discrete receptors processed?   (LD) -- Default: F    ! LD   = T  !
   CTSG Complex terrain receptors processed?
                                  (LCT) -- Default: F    ! LCT = F   !

--Report results by DISCRETE receptor RING?
   (only used when LD = T)      (LDRING) -- Default: F    ! LDRING = F  !

--Select range of DISCRETE receptors (only used when LD = T):

   Select ALL DISCRETE receptors by setting NDRECP flag to -1;
                                   OR
   Select SPECIFIC DISCRETE receptors by entering a flag (0,1) for each
      0 = discrete receptor not processed
      1 = discrete receptor processed
   using repeated value notation to select blocks of receptors:
      23*1, 15*0, 12*1
   Flag for all receptors after the last one assigned is set to 0
   (NDRECP) -- Default: -1

   ! NDRECP = -1 !


--Select range of GRIDDED receptors (only used when LG = T):

        X index of LL corner (IBGRID) -- Default: -1     ! IBGRID = -1   !
            (-1 OR 1 <= IBGRID <= NX)

        Y index of LL corner (JBGRID) -- Default: -1     ! JBGRID = -1   !
            (-1 OR 1 <= JBGRID <= NY)

        X index of UR corner (IEGRID) -- Default: -1     ! IEGRID = -1   !
            (-1 OR 1 <= IEGRID <= NX)

        Y index of UR corner (JEGRID) -- Default: -1     ! JEGRID = -1   !
            (-1 OR 1 <= JEGRID <= NY)

   Note: Entire grid is processed if IBGRID=JBGRID=IEGRID=JEGRID=-1


 --Specific gridded receptors can also be excluded from CALPOST
   processing by filling a processing grid array with 0s and 1s.  If the
   processing flag for receptor index (i,j) is 1 (ON), that receptor
   will be processed if it lies within the range delineated by IBGRID,
   JBGRID,IEGRID,JEGRID and if LG=T. If it is 0 (OFF), it will not be
   processed in the run.  By default, all array values are set to 1 (ON).

   Number of gridded receptor rows provided in Subgroup (1a) to
   identify specific gridded receptors to process
                           (NGONOFF) -- Default: 0      ! NGONOFF =  0  !

 !END!


 --------------
 Subgroup (1a) -- Specific gridded receptors included/excluded
```

```
--------------

    Specific gridded receptors are excluded from CALPOST processing
    by filling a processing grid array with 0s and 1s.  A total of
    NGONOFF lines are read here.  Each line corresponds to one 'row'
    in the sampling grid, starting with the NORTHERNMOST row that
    contains receptors that you wish to exclude, and finishing with
    row 1 to the SOUTH (no intervening rows may be skipped).  Within
    a row, each receptor position is assigned either a 0 or 1,
    starting with the westernmost receptor.
       0 = gridded receptor not processed
       1 = gridded receptor processed

    Repeated value notation may be used to select blocks of receptors:
       23*1, 15*0, 12*1

    Because all values are initially set to 1, any receptors north of
    the first row entered, or east of the last value provided in a row,
    remain ON.

    (NGXRECP) -- Default: 1


---------------------------------------------------------------------------

INPUT GROUP: 2 -- Visibility Parameters (ASPEC = VISIB)
--------------

    Maximum relative humidity (%) used in particle growth curve
                              (RHMAX) -- Default: 98    ! RHMAX  = 98.0 !

    Modeled species to be included in computing the light extinction
     Include SULFATE?          (LVSO4) -- Default: T    ! LVSO4  = T  !
     Include NITRATE?          (LVNO3) -- Default: T    ! LVNO3  = T  !
     Include ORGANIC CARBON?   (LVOC)  -- Default: T    ! LVOC   = T  !
     Include COARSE PARTICLES? (LVPMC) -- Default: T    ! LVPMC  = F  !
     Include FINE PARTICLES?   (LVPMF) -- Default: T    ! LVPMF  = T  !
     Include ELEMENTAL CARBON? (LVEC)  -- Default: T    ! LVEC   = T  !

    And, when ranking for TOP-N, TOP-50, and Exceedance tables,
     Include BACKGROUND?       (LVBK)  -- Default: T    ! LVBK   = F  !

    Species name used for particulates in MODEL.DAT file
                 COARSE    (SPECPMC) -- Default: PMC ! SPECPMC = PMC !
                 FINE      (SPECPMF) -- Default: PMF ! SPECPMF = SOIL !

Extinction Efficiency (1/Mm per ug/m**3)
---------------------------------------
    MODELED particulate species:
              PM  COARSE      (EEPMC) -- Default: 0.6 ! EEPMC   = 0.6 !
              PM  FINE        (EEPMF) -- Default: 1.0 ! EEPMF   = 1.0 !
    BACKGROUND particulate species:
              PM  COARSE    (EEPMCBK) -- Default: 0.6 ! EEPMCBK = 0.6 !
    Other species:
             AMMONIUM SULFATE (EESO4) -- Default: 3.0 ! EESO4   = 3.0 !
             AMMONIUM NITRATE (EENO3) -- Default: 3.0 ! EENO3   = 3.0 !
             ORGANIC CARBON   (EEOC)  -- Default: 4.0 ! EEOC    = 4.0 !
             SOIL             (EESOIL)-- Default: 1.0 ! EESOIL  = 1.0 !
             ELEMENTAL CARBON (EEEC)  -- Default: 10. ! EEEC    = 10.0 !

Background Extinction Computation
--------------------------------

    Method used for background light extinction
                             (MVISBK) -- Default: 6    ! MVISBK =  2  !

        1 =  Supply single light extinction and hygroscopic fraction
             - IWAQM (1993) RH adjustment applied to hygroscopic background
               and modeled sulfate and nitrate
        2 =  Compute extinction from speciated PM measurements (A)
             - Hourly RH adjustment applied to observed and modeled sulfate
               and nitrate
             - RH factor is capped at RHMAX
        3 =  Compute extinction from speciated PM measurements (B)
             - Hourly RH adjustment applied to observed and modeled sulfate
               and nitrate
             - Receptor-hour excluded if RH>RHMAX
             - Receptor-day excluded if fewer than 6 valid receptor-hours
        4 =  Read hourly transmissometer background extinction measurements
             - Hourly RH adjustment applied to modeled sulfate and nitrate
             - Hour excluded if measurement invalid (missing, interference,
               or large RH)
             - Receptor-hour excluded if RH>RHMAX
             - Receptor-day excluded if fewer than 6 valid receptor-hours
        5 =  Read hourly nephelometer background extinction measurements
             - Rayleigh extinction value (BEXTRAY) added to measurement
             - Hourly RH adjustment applied to modeled sulfate and nitrate
             - Hour excluded if measurement invalid (missing, interference,
```

```
              or large RH)
            - Receptor-hour excluded if RH>RHMAX
            - Receptor-day excluded if fewer than 6 valid receptor-hours
        6 = Compute extinction from speciated PM measurements
            - FLAG RH adjustment factor applied to observed and
              modeled sulfate and nitrate

    Additional inputs used for MVISBK = 1:
    --------------------------------------
     Background light extinction (1/Mm)
                                (BEXTBK) -- No default   ! BEXTBK = 0.0 !
     Percentage of particles affected by relative humidity
                                (RHFRAC) -- No default   ! RHFRAC = 0.0 !

    Additional inputs used for MVISBK = 6:
    --------------------------------------
     Extinction coefficients for hygroscopic species (modeled and
     background) are computed using a monthly RH adjustment factor
     in place of an hourly RH factor (VISB.DAT file is NOT needed).
     Enter the 12 monthly factors here (RHFAC).  Month 1 is January.

     (RHFAC)  -- No default     ! RHFAC = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !

    Additional inputs used for MVISBK = 2,3,6:
    ------------------------------------------
     Background extinction coefficients are computed from monthly
     CONCENTRATIONS of ammonium sulfate (BKSO4), ammonium nitrate (BKNO3),
     coarse particulates (BKPMC), organic carbon (BKOC), soil (BKSOIL), and
     elemental carbon (BKEC).  Month 1 is January.
     (ug/m**3)


     (BKSO4)  -- No default     ! BKSO4 = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !
     (BKNO3)  -- No default     ! BKNO3 = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !
     (BKPMC)  -- No default     ! BKPMC = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !
     (BKOC)   -- No default     ! BKOC  = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !
     (BKSOIL) -- No default     ! BKSOIL= 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !
     (BKEC)   -- No default     ! BKEC  = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !

    Additional inputs used for MVISBK = 2,3,5,6:
    --------------------------------------------
     Extinction due to Rayleigh scattering is added (1/Mm)
                               (BEXTRAY) -- Default: 10.0 ! BEXTRAY = 10.0 !

!END!
-------------------------------------------------------------------------------

INPUT GROUP: 3 -- Output options
--------------

Documentation
-------------

    Documentation records contained in the header of the
    CALPUFF output file may be written to the list file.
    Print documentation image?
                                 (LDOC) -- Default: F    !  LDOC =  F  !

Output Units
------------
    Units for All Output       (IPRTU) -- Default: 1    ! IPRTU =  1  !
                     for                for
                Concentration     Deposition
       1 =         g/m**3          g/m**2/s
       2 =        mg/m**3         mg/m**2/s
       3 =        ug/m**3         ug/m**2/s
       4 =        ng/m**3         ng/m**2/s
       5 =      Odour Units

    Visibility: extinction expressed in 1/Mega-meters (IPRTU is ignored)


Averaging time(s) reported
--------------------------
```

```
     1-hr averages            (L1HR) -- Default: T   !   L1HR = F  !

     3-hr averages            (L3HR) -- Default: T   !   L3HR = F  !

     24-hr averages          (L24HR) -- Default: T   !  L24HR = F  !

     Run-length averages     (LRUNL) -- Default: T   !  LRUNL = T  !

     User-specified averaging time in hours - results for
     an averaging time of NAVG hours are reported for
     NAVG greater than 0:
                              (NAVG) -- Default: 0   !   NAVG =  0  !


 Types of tabulations reported
 ------------------------------

    1) Visibility: daily visibility tabulations are always reported
                   for the selected receptors when ASPEC = VISIB.
                   In addition, any of the other tabulations listed
                   below may be chosen to characterize the light
                   extinction coefficients.
                   [List file or Plot/Analysis File]


    2) Top 50 table for each averaging time selected
       [List file only]
                              (LT50) -- Default: T   !   LT50 = F  !

    3) Top 'N' table for each averaging time selected
       [List file or Plot file]
                             (LTOPN) -- Default: F   !  LTOPN = T  !

         -- Number of 'Top-N' values at each receptor
            selected (NTOP must be <= 4)
                              (NTOP) -- Default: 4   ! NTOP =  1   !

         -- Specific ranks of 'Top-N' values reported
            (NTOP values must be entered)
                     (ITOP(4) array) -- Default:     ! ITOP =  1  !
                                        1,2,3,4


    4) Threshold exceedance counts for each receptor and each averaging
       time selected
       [List file or Plot file]
                             (LEXCD) -- Default: F   !  LEXCD = F  !

         -- Identify the threshold for each averaging time by assigning a
            non-negative value (output units).

                                     -- Default: -1.0
            Threshold for  1-hr averages   (THRESH1) !  THRESH1 = -1.0  !
            Threshold for  3-hr averages   (THRESH3) !  THRESH3 = -1.0  !
            Threshold for 24-hr averages  (THRESH24) ! THRESH24 = -1.0  !
            Threshold for NAVG-hr averages (THRESHN) !  THRESHN = -1.0  !


         -- Counts for the shortest averaging period selected can be
            tallied daily, and receptors that experience more than NCOUNT
            counts over any NDAY period will be reported.  This type of
            exceedance violation output is triggered only if NDAY > 0.

            Accumulation period(Days)
                              (NDAY) -- Default: 0   !    NDAY =  0  !
            Number of exceedances allowed
                            (NCOUNT) -- Default: 1   !  NCOUNT =  1  !


     5) Selected day table(s)

        Echo Option -- Many records are written each averaging period
        selected and output is grouped by day
        [List file or Plot file]
                             (LECHO) -- Default: F   !  LECHO = F  !

        Timeseries Option -- Averages at all selected receptors for
        each selected averaging period are written to timeseries files.
        Each file contains one averaging period, and all receptors are
        written to a single record each averaging time.
        [TSttUUUU.DAT files]
                             (LTIME) -- Default: F   !  LTIME = F  !

          -- Days selected for output
                        (IECHO(366)) -- Default: 366*0
             ! IECHO  = 366*0  !
             (366 values must be entered)
```

```
Plot output options
-------------------

     Plot files can be created for the Top-N, Exceedance, and Echo
     tables selected above.  Two formats for these files are available,
     DATA and GRID.  In the DATA format, results at all receptors are
     listed along with the receptor location [x,y,val1,val2,...].
     In the GRID format, results at only gridded receptors are written,
     using a compact representation.  The gridded values are written in
     rows (x varies), starting with the most southern row of the grid.
     The GRID format is given the .GRD extension, and includes headers
     compatible with the SURFER(R) plotting software.

     A plotting and analysis file can also be created for the daily
     peak visibility summary output, in DATA format only.

     Generate Plot file output in addition to writing tables
     to List file?
                                   (LPLT) -- Default: F    ! LPLT   = F !

     Use GRID format rather than DATA format,
     when available?
                                   (LGRD) -- Default: F    ! LGRD   = F !


Additional Debug Output
-----------------------

   Output selected information to List file
    for debugging?
                                 (LDEBUG) -- Default: F   ! LDEBUG  = F !

!END!
```

```
                          POSTBOB by Golder Associates
                                 Version 060502

CALPOST LIST FILENAME : PSTNDEP.LST

** FPL WCEC 3 - CALPOST N DEPOSITION IMPACTS   EPA   9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2001

POLLUTANT : N     MODE : TOTAL DEPOSITION    UNITS :( g/m**2/s)

AVERAGING  RANK     PEAK    RECEPTOR  RECEPTOR LOCATION    PERIOD
 PERIOD             VALUE    NUMBER    X(KM)      Y(KM)    (YYMMDDHE)
-------------------------------------------------------------------------

 8760        1   0.2162E-11    899   1597.324 -1438.110  (01123124)
KG/HA/YR =       0.0007
*************************************************************************
CALPOST LIST FILENAME : PSTSDEP.LST

** FPL WCEC 3- CALPOST S DEPOSITION IMPACTS   EPA   9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2001

POLLUTANT : S     MODE : TOTAL DEPOSITION    UNITS :( g/m**2/s)

AVERAGING  RANK     PEAK    RECEPTOR  RECEPTOR LOCATION    PERIOD
 PERIOD             VALUE    NUMBER    X(KM)      Y(KM)    (YYMMDDHE)
-------------------------------------------------------------------------

 8760        1   0.4171E-11    838   1584.177 -1451.911  (01123124)
KG/HA/YR =       0.0013
*************************************************************************
                          POSTBOB by Golder Associates
                                 Version 060502

CALPOST LIST FILENAME : PSTNDEP.LST

** FPL WCEC 3 - CALPOST N DEPOSITION IMPACTS   EPA   9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2002

POLLUTANT : N     MODE : TOTAL DEPOSITION    UNITS :( g/m**2/s)

AVERAGING  RANK     PEAK    RECEPTOR  RECEPTOR LOCATION    PERIOD
 PERIOD             VALUE    NUMBER    X(KM)      Y(KM)    (YYMMDDHE)
-------------------------------------------------------------------------

 8760        1   0.3807E-11    836   1672.714 -1439.024  (02123124)
KG/HA/YR =       0.0012
*************************************************************************
CALPOST LIST FILENAME : PSTSDEP.LST

** FPL WCEC 3- CALPOST S DEPOSITION IMPACTS   EPA   9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2002

POLLUTANT : S     MODE : TOTAL DEPOSITION    UNITS :( g/m**2/s)

AVERAGING  RANK     PEAK    RECEPTOR  RECEPTOR LOCATION    PERIOD
 PERIOD             VALUE    NUMBER    X(KM)      Y(KM)    (YYMMDDHE)
-------------------------------------------------------------------------

 8760        1   0.5990E-11    859   1667.178 -1437.152  (02123124)
KG/HA/YR =       0.0019
*************************************************************************
                          POSTBOB by Golder Associates
                                 Version 060502

CALPOST LIST FILENAME : PSTNDEP.LST

** FPL WCEC 3 - CALPOST N DEPOSITION IMPACTS   EPA   9/13/07
** 901 ENP RECEPTORS
** 4-km FL DOMAIN, 2003

POLLUTANT : N     MODE : TOTAL DEPOSITION    UNITS :( g/m**2/s)

AVERAGING  RANK     PEAK    RECEPTOR  RECEPTOR LOCATION    PERIOD
 PERIOD             VALUE    NUMBER    X(KM)      Y(KM)    (YYMMDDHE)
-------------------------------------------------------------------------

 8736        1   0.2629E-11    858   1664.664 -1437.611  (03123124)
KG/HA/YR =       0.0008
*************************************************************************
CALPOST LIST FILENAME : PSTSDEP.LST

** FPL WCEC 3- CALPOST S DEPOSITION IMPACTS   EPA   9/13/07
** 901 ENP RECEPTORS
```

```
** 4-km FL DOMAIN, 2003

POLLUTANT : S      MODE : TOTAL DEPOSITION     UNITS :( g/m**2/s)

AVERAGING  RANK     PEAK    RECEPTOR  RECEPTOR LOCATION    PERIOD
 PERIOD             VALUE    NUMBER    X(KM)     Y(KM)    (YYMMDDHE)
-------------------------------------------------------------------------------

 8736        1   0.4131E-11    899   1597.324 -1438.110  (03123124)
KG/HA/YR =       0.0013
*******************************************************************************
```

APPENDIX G
AIR MODELING PROTOCOL

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

Golder Associates

September 17, 2007

Project No. 0738-7652

Air Permitting – South
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Attn: Ms. Debbie Nelson, Meteorologist

RE: AIR MODELING PROTOCOL FOR ASSESSING POLLUTANT AND AIR QUALITY RELATED VALUE IMPACTS FOR THE ADDITION OF UNIT 3 AT FPL'S WEST COUNTY ENERGY CENTER

On behalf of Florida Power & Light Company (FPL), Golder Associates Inc. (Golder) is providing this air modeling protocol to the Florida Department of Environmental Protection (FDEP) to present proposed near-field and Prevention of Significant Deterioration (PSD) Class I modeling methodologies to be used for the proposed addition of Unit 3 at the West County Energy Center (WCEC). The protocol presents the most current, accepted air modeling techniques and methodologies for predicting both near-field and far-field pollutant concentrations, based on recommendations consistent with FDEP and U.S. Environmental Protection Agency (EPA) requirements, as well as those of the Federal Land Managers (FLMs) for affected PSD Class I areas.

The key features of the air modeling analyses are included in the following sections.

PROJECT DESCRIPTION

Project Emissions

The proposed Project involves the addition of an additional 3-on-1 combined-cycle unit with a total net generating capacity of 1,250 megawatts to FPL's existing WCEC site in central Palm Beach County. The combustion turbine (CT) and heat recovery steam generator (HRSG) train for WCEC Unit 3 will use the same equipment design as WCEC Units 1 and 2. The primary fuel will be natural gas, with ultra-low sulfur distillate fuel oil (0.0015 percent sulfur) for use as the backup fuel for up to 500 hours per year per CT. Duct firing with natural gas up to 260 million British thermal units per hour (MMBtu/hr) (lower heating value) in each HRSG for an equivalent of 2,880 hours per year is also proposed. The proposed Project will result in emissions increases above the EPA significant emission rates (SER) for the following pollutants, thereby requiring PSD review for each pollutant:

- Sulfur dioxide (SO_2) – 193 tons per year (TPY);
- Nitrogen oxides (NO_x) – 332 TPY;
- Total particulate matter (PM) – 225 TPY;
- PM with aerodynamic diameters less than or equal to 10 microns (PM_{10}) – 130 TPY;
- Carbon monoxide (CO) – 413 TPY;
- Sulfuric acid mist (SAM) – 32.6 TPY; and
- Volatile organic compounds (VOC) – 66 TPY.

The maximum short-term emissions in pounds per hour (lb/hr) for different emission units of the Project are presented below:

Emission Unit	SO_2	PM_{10}	NO_x	CO	H_2SO_4
CT/HRSG (oil)	2.8	37.0	57.9	37.2	0.9
(gas)	12.0	4.8	15.7	27.2	1.9
Cooling Tower	–	1.17	–	–	–
Emergency Generator	0.03	0.6	61.7	2.3	–
Heater	0.05	0.02	0.95	0.8	–

Note: CT/HRSG emission rates are per CT/HRSG unit. A total of three units are planned.

Project Location

The existing WCEC site is mostly rural and flat and is located approximately 107 kilometers (km) north of the PSD Class I area of the Everglades National Park (NP). Because the second nearest PSD Class I area, the Chassahowitzka National Wilderness Area (NWA), is located 306 km from the site, the PSD Class I analysis will address impacts only at the Everglades NP. The locations of the nearest PSD Class I areas and Project site are shown in Figure 1.

The approximate location for this site is 562.2 km East and 2953.0 km North in the Universal Transverse Mercator (UTM) coordinate system in North American Datum (NAD) 27.

Palm Beach County is classified as an attainment area (includes unclassifiable) for all applicable pollutants: SO_2, nitrogen dioxide (NO_2), CO, PM_{10}, and ozone. Palm Beach County and surrounding counties are designated as PSD Class II areas for SO_2, PM, and NO_2. Palm Beach County is also designated a maintenance area for ozone.

Building Downwash Considerations

The proposed HRSG stacks will be approximately 140 feet tall and will be evaluated for determining compliance with Good Engineering Practice (GEP) regulations and the potential influence of nearby buildings and structures that could cause building downwash. For each stack that is below the GEP height, direction-specific building heights and maximum projected widths will be determined using the Building Profile Input Program (BPIP, Version 04274), which incorporates the Plume Rise Model Enhancement (PRIME) downwash algorithm developed by the Electric Power Research Institute (EPRI). The direction-specific building information output by BPIP will be input to the air dispersion model for processing.

DISPERSION MODELING – NEAR-FIELD ANALYSIS

A source impact analysis is required by FDEP Rule 62-212.400(5) Florida Administrative Code (F.A.C.). The near-field air modeling analysis will be performed using the American Meteorological Society (AMS)/EPA Regulatory Model (AERMOD, Version 07026) to predict concentrations in the vicinity of the proposed Project site location. The near-field analysis is based on predicting impacts within 50 km of the Project. The EPA regulatory default options will be used to predict all maximum impacts. These options include:

- Final plume rise at all receptor locations
- Stack-tip downwash
- Buoyancy-induced dispersion
- Default wind speed profile coefficients
- Default vertical potential temperature gradients
- Calm wind processing

Meteorological Data
The meteorological data to be used for the near-field analysis will consist of a 5-year hourly record from Palm Beach International Airport (PBI) and coincident upper air sounding data collected at Florida International University in Miami for years 2001 to 2005. The PBI meteorological data was processed with the AERMOD meteorological pre-processor program AERMET (Version 06341). The PBI meteorological data set has been used for the PSD application for the WCEC Units 1 and 2. The appropriateness of using the PBI weather data for the WCEC site with AERMOD will be confirmed with the FDEP prior to performing the modeling.

Receptors
Receptors will be placed along the WCEC site's restricted property boundary (i.e., fenceline) and beyond the fenceline according to the following receptor spacing.

- Along the property boundary or fenceline – 50 meters (m);
- Beyond the fenceline to 2 km – 100 m;
- From 2 km to 5 km – 250 m;
- From 5 km to 7 km – 500 m; and
- From 7 km to 10 km – 1,000 m.

All maximum predicted concentrations will be obtained from a receptor grid comprising 50-m resolution on the fence line and 100-m resolution or less beyond the fence line. AERMOD's terrain preprocessing program, AERMAP, Version 06341, will be used to process the receptor grid data in all near-field areas, using 7.5-minute U. S. Geological Survey (USGS) Digital Elevation Model (DEM) files.

Additional receptors will be modeled (i.e., extend the receptor grid beyond 10 km) if the maximum Project impacts on a pollutant-specific basis are not predicted to be less than the significant impact levels within 10 km of the site.

Significant Impact Analysis
A significant impact analysis will be performed for the proposed Project's emissions only. The Project's impacts will be evaluated for a range of CT operating loads and ambient temperatures. The operating load and ambient temperature that produces the highest air impacts will be determined. If the highest predicted impact for a particular pollutant exceeds a significant impact level, a more detailed modeling analysis (i.e., cumulative source modeling) will be performed for that pollutant. The critical load and temperature will then be used in the detailed analysis with other background facilities.

AAQS and PSD Class II Impact Analysis
Pollutant-specific analyses will be performed if the Project's impacts are predicted to be greater than the significant impact levels to demonstrate compliance with Florida Ambient Air Quality Standards (AAQS) and with PSD Class II Increments. The AAQS analysis will include the Project along with background facility emission data and a non-modeled background concentration for comparison to the AAQS. In the PSD Class II increment analysis, PSD increment consuming and expanding sources will be modeled for comparison to the allowable PSD Class II increments.

AAQS and PSD Class II Emission Inventories
If a detailed impact assessment is required for one or more pollutants for the near-field modeling analysis, background AAQS and PSD increment-affecting sources for those pollutants will be requested from FDEP. In addition, emissions and stack parameters for facilities will be developed from information contained in previous air modeling reports or from other data sources (e.g.,

Title V Permit Applications). The baseline emissions for the purpose of determining PSD increment consumption will be determined pursuant to the definition of "baseline concentration" in FDEP Rule 62-210.200(37) F.A.C.

To reduce the number of background sources evaluated, the "Screening Threshold" method developed by the North Carolina Department of Natural Resources and Community Development will be used. Based on this technique, facilities whose annual emissions (i.e., tons per year) are less than the threshold quantity, Q, are eliminated from the modeling analysis. Q is equal to $20 \times (D-SIA)$, where D is the distance in km from the facility to the Project site and SIA is the distance of the Project's pollutant-specific significant impact area (SIA). The facilities that are not eliminated in the screening analysis will be included in the AAQS and PSD Class II analyses.

Non-Modeled Background Concentrations

Total air quality impacts for comparison to AAQS will be based on the maximum impacts predicted from the modeled sources added to non-modeled background concentrations. The non-modeled background concentrations account for impacts from sources not explicitly modeled, and are generally estimated from ambient monitoring data representative of the Project site. Monitoring data near the Project site will be reviewed over the last several years and the highest measured concentration will be selected to represent background concentrations.

DISPERSION MODELING – FAR-FIELD ANALYSIS

The Everglades NP PSD Class I Area is located about 102 km south of the WCEC site. The analysis required by FDEP Rule 62-212.400(9) will be conducted.

The California Puff air modeling system (CALPUFF, Version 5.8 – i.e., the latest EPA-approved version) will be used on this Project to predict maximum air quality pollutant and Air Quality Related Value (AQRV) impacts on the Everglades NP. The CALPUFF model is a non-steady state Lagrangian puff long-range transport model that includes algorithms for chemical transformations (important for visibility controlling pollutants), and wet/dry deposition. Recent technical enhancements, including changes to the over-water boundary layer formulation and coastal effects modules (sponsored by the Minerals Management Service), are included in this version. The CALPUFF model will be used in a manner that is consistent with methodologies recommended in the following documents and as discussed in recent telephone conversations with the National Park Service (NPS):

- FLMs' AQRV Workgroup (FLAG) guidance document, finalized in December 2000 and referred to as the FLAG Phase I Report, and
- Interagency Workgroup on Air Quality Models (IWAQM) Phase 2 Summary Report and Recommendations for Modeling Long-Range Transport Impacts (EPA, 1998), referred to as the IWAQM Phase 2 report.

Parameter settings to be used in the CALPUFF modeling will be based on the latest regulatory guidance. Where the modeling guidance recommends regulatory model defaults, those defaults will be used. For ozone background concentrations, observed hourly ozone data for 2001 through 2003 from CASTNET and AIRS stations will be used. These data are available from the TRC website. A fixed monthly ammonia background concentration of 0.5 parts per billion (ppb) will be used. Parameters will be set to generate an hourly relative humidity file and calculate wet and dry fluxes and concentrations.

A sample CALPUFF control file has been included in Appendix A that provides the parameter settings proposed for use for this Project.

Project Emissions and PM Speciation

The CALPUFF model will include the proposed Project's emission, stack, and operating data based on the operating condition that has the highest emissions. Using the latest regulatory guidance, PM emissions for the proposed Project will include six particle size categories. The PM emissions will then be speciated into filterable and condensable species using the POSTUTIL utility program. Note that emissions for condensable inorganic PM are input directly to CALPUFF as sulfate (SO_4).

The effect that each species has on visibility impairment is related to a parameter called the extinction coefficient. The higher the extinction coefficient, the greater is that species' effect on visibility. Filterable PM is speciated into coarse (PMC), fine (PMF), and elemental carbon (EC). The default extinction coefficients for these species are 0.6, 1.0, and 10.0, respectively. PMC is PM with aerodynamic diameters greater than 2.5 microns. Both EC and PMF have aerodynamic diameters equal to or less than 2.5 microns. Condensable PM is composed of sulfate (SO_4) and secondary organic aerosols (SOA). The extinction coefficients for these species are $3 \times f(RH)$ and $4 \times f(RH)$, respectively, where f(RH) is the relative humidity factor.

PM speciation (PM_{10} versus $PM_{2.5}$) will be developed based on the best available vendor information for the proposed Project's emission sources.

A sample POSTUTIL control file for predicting visibility impairment is included in Appendix B.

Building Downwash Considerations

Building data will be included in the modeling using the same building dimensions developed for AERMOD.

Meteorological and Geophysical Data

The air modeling analyses will be conducted using the latest meteorological and geophysical databases that have been developed for use with the most recent versions of CALPUFF. These datasets were developed using CALMET Version 5.8 and were provided by the FDEP. The Florida domain has 4-km spacing and covers the period from 2001 to 2003.

Receptors

The NPS has developed 901 receptors to represent the boundary and internal areas for the Everglades NP. A figure showing the receptor locations at Everglades NP is presented in Figure 2. The minimum distance from the WCEC site to the Everglades NP is approximately 107 km.

Significant Impact Analysis

The CALPUFF model will be used to perform a PSD Class I significant impact analysis at the Everglades NP. The maximum predicted SO_2, NO_2, and PM_{10} concentrations due to the proposed Project will be compared to EPA's proposed PSD Class I significant impact levels. If the Project's impacts exceed the proposed EPA PSD Class I significant impact levels, then a more detailed PSD Class I increment analysis will be performed on a pollutant-specific basis.

The proposed PSD Class I significant impact levels are:

- SO_2: 3-hour – 1.0 micrograms per cubic meter ($\mu g/m^3$); 24-hour – 0.2 $\mu g/m^3$; and annual average – 0.1 $\mu g/m^3$
- NO_2: annual average – 0.1 $\mu g/m^3$
- PM_{10}: 24-hour – 0.3 $\mu g/m^3$; and annual average – 0.2 $\mu g/m^3$

PSD Class I Emission Inventories
If a detailed PSD Class I impact assessment is required for one or more pollutants, PSD-increment affecting sources will be modeled for comparison to the allowable PSD Class I increments. The baseline emissions for the purpose of determining PSD Increment consumption will be determined pursuant to the definition of "baseline concentration" in FDEP Rule 62-210.200(37) F.A.C. An inventory of background PSD Class I increment-affecting sources will be developed with the assistance and concurrence of the FDEP.

Visibility Impact
Based on the FLAG document, current regional haze guidelines characterize a change in visibility by the change in the light-extinction coefficient (b_{ext}). The b_{ext} is the attenuation of light per unit distance due to scattering and absorption by gases and particles in the atmosphere. A change in the extinction coefficient produces a perceived visual change. An index that simply quantifies the percent change in visibility due to the operation of a source is calculated as:

$$\Delta\% = (b_{exts} / b_{extb}) \times 100$$

where: b_{exts} is the extinction coefficient calculated for the source, and

b_{extb} is the background extinction coefficient.

The purpose of the visibility analysis is to calculate the extinction at each receptor for each day (24-hour period) of the year due to the proposed Project emissions. The criteria to determine if the Project's impacts are potentially significant are based on a change in extinction of 5 percent or greater for any day of the year.

The CALPUFF postprocessor model CALPOST will be used to calculate the combined visibility effects from the different pollutants that are emitted from the proposed Project. Based on communications with the NPS, daily background extinction coefficients are to be calculated on an hour-by-hour basis using hourly relative humidity data from CALMET and hygroscopic and non-hygroscopic extinction components specified in the FLAG document (Visibility Method 2). For the Everglades NP, the hygroscopic and non-hygroscopic components are 0.9 and 8.5 inverse megameter (Mm^{-1}) respectively. CALPOST then calculates the percent extinction change for each day of the year. A Rayleigh scattering term of 11.3 Mm^{-1} will be used for the analysis. This value is from Table A of the document entitled, *Revised IMPROVE Algorithm for Estimating Light Extinction from Particle Speciation Data* (IMPROVE, 2005). The revised relative humidity scattering enhancement factor [f(RH)] growth curve published by EPA in 2003 will be used in the analysis.

A sample CALPOST control file for visibility impairment using Method 2 is included in Appendix C.

Additional Visibility Assessments
In order to provide additional useful information for this analysis, Golder will determine the weather conditions for all days for which the visibility impairment is predicted to exceed 5 percent using Visibility Method 2. This analysis will review those days and identify hours with potential

meteorological conditions, such as rain and fog, that lead to existing reduced visibility conditions. These conditions often produce unrealistic impacts for a source when the visibility is already reduced due to natural causes.

Golder will also perform the visibility impairment analysis using Visibility Method 6 which applies monthly average relative humidity factors based on values from Table A-3 of *Guidance for Estimating Natural Visibility Conditions Under the Regional Haze Rule* (EPA, September 2003). This approach is currently recommended for sources that are affected by the Best Available Retrofit Technology (BART) regulations and uses the predicted 98th percentile concentration to compare to visibility criteria. This comparison will provide an additional assessment of potential visibility impairment for the Project based on the evolving approach in assessing regional haze impacts at PSD Class I areas.

<u>Sulfur and Nitrogen Deposition</u>
As part of the AQRV analyses, total sulfur (S) and nitrogen (N) deposition rates will be predicted for the proposed Project at the Everglades NP. The deposition analysis criterion is based on the annual averaging period. The total deposition is estimated in kilograms per hectare per year (kg/ha/yr) of nitrogen or sulfur. The CALPUFF model is used to predict wet and dry deposition fluxes of various oxides of these elements.

For N deposition, the species include:

- Particulate ammonium nitrate (species NO_3), wet and dry deposition;
- Nitric acid (species HNO_3), wet and dry deposition;
- NO_x dry deposition; and
- Ammonium sulfate (species SO_4), wet and dry deposition.

For S deposition, the species include:

- SO_2, wet and dry deposition; and
- SO_4, wet and dry deposition.

The CALPUFF model produces results in units of micrograms per square meter per second ($\mu g/m^2/s$). The modeled deposition rates will be converted to N or S deposition in kg/ha/yr by using a multiplier equal to the ratio of the molecular weights of the substances (IWAQM Phase II report Section 3.3).

Deposition analysis thresholds (DAT) for total N and S deposition of 0.01 kg/ha/yr were provided by the U.S. Fish and Wildlife Service (January 2002). A DAT is the additional amount of N or S deposition within a Class I area, below which estimated impacts from a proposed new or modified source are considered insignificant. The maximum N and S depositions predicted for the proposed Project will be compared to these DAT or significant impact levels.

The wet and dry sulfate and nitrate fluxes will be converted into total N and S fluxes using the POSTUTIL utility program.

A sample control input file for N deposition is included in Appendix D.

ADDITIONAL IMPACT ANALYSES

The additional impact analyses required pursuant to FDEP Rule 62-212.400(8) will be conducted, including an analysis of the impacts of emissions from the Project on soils, vegetation, and visibility. To address such impacts, soil and vegetation types in the vicinity of the plant and in the area will be identified. A literature review will be conducted to identify the most recent data concerning threshold effect levels for the soil and vegetation types in those areas.

The analysis of impacts due to associated growth in the area must also be addressed. Growth effects will be addressed quantitatively and qualitatively, including impacts due to associated growth.

AMBIENT MONITORING ANALYSIS

The analysis required by FDEP Rule 62-212.400(6) will be conducted. The Project's maximum pollutant impacts will also be compared to *de minimis* air monitoring concentration to address preconstruction ambient air monitoring requirements under the PSD regulations. Should the Project's maximum pollutant impacts exceed a *de minimis* monitoring concentration, the applicant will meet the requirements using representative ambient air monitoring data.

We look forward to receiving your comments on this protocol and working with the FDEP on this important Project. If there are any questions, please contact Steve Marks or Ken Kosky at (352) 336-5600. Thank you.

Sincerely,

GOLDER ASSOCIATES INC.

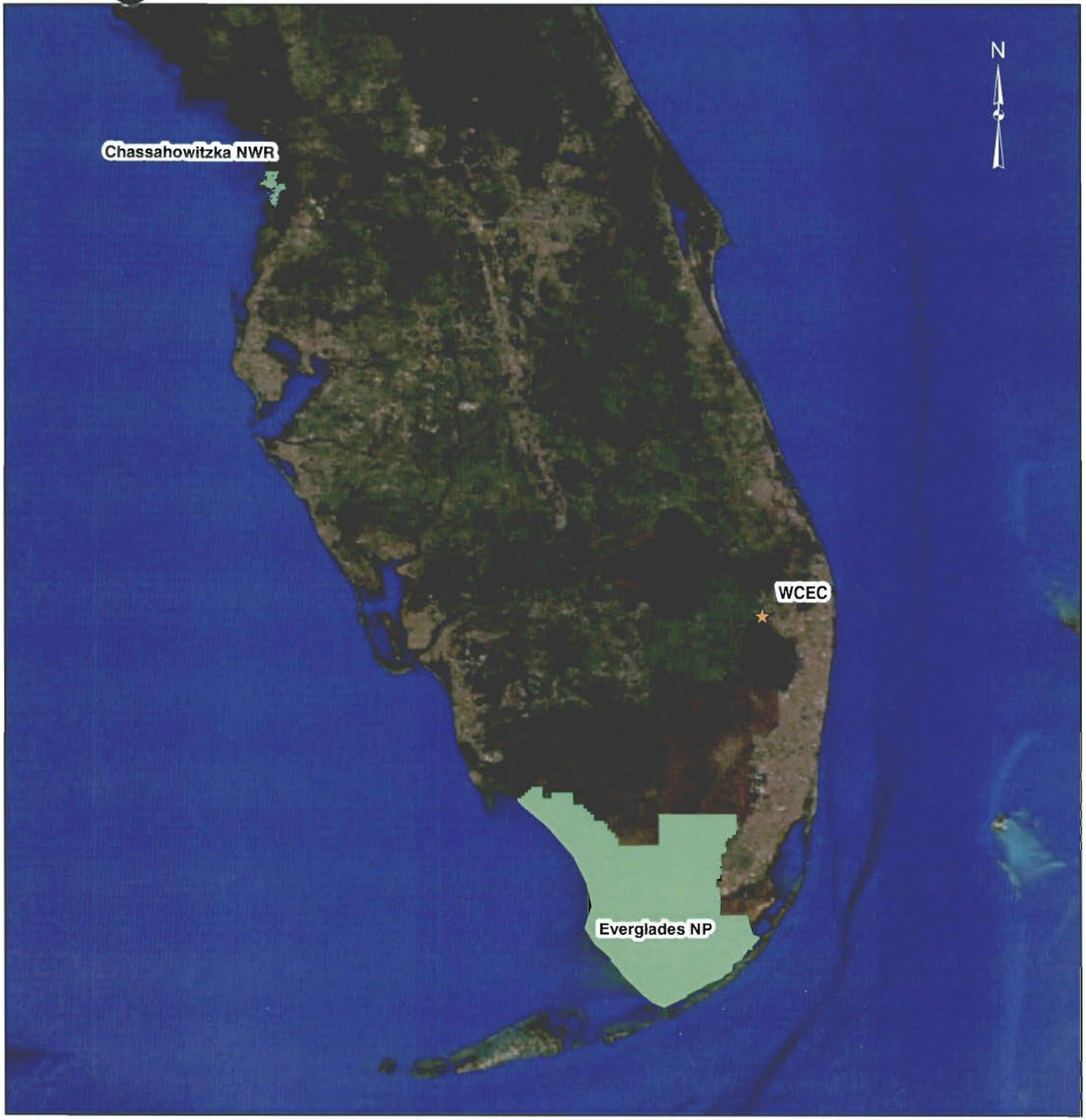
Steven R. Marks, C.C.M.
Associate

Kennard F. Kosky, P.E.
Principal

SRM/tz

Enclosures

Y:\Projects\2007\07387652 FPL WCEC Unit #3\Reports\Modeling Protocol\WestCounty3 air protocol 090707.doc



LEGEND

☆ WCEC

National Parks and Wildlife Refuges

REFERENCE

1. WCEC Golder Associates Inc. 2. Aerial Photography - Aerials Express 1/15/2006 via ESRI ArcGIS Online Imagery
3. National Parks ESRI Data and Maps Media Kit
Projection: Transverse Mercator Datum: NAD 83 Coordinate System: UTM Zone 17

50 0 50 Kilometers

PROJECT
WEST COUNTY ENERGY CENTER UNIT 3
MODELING PROTOCOL

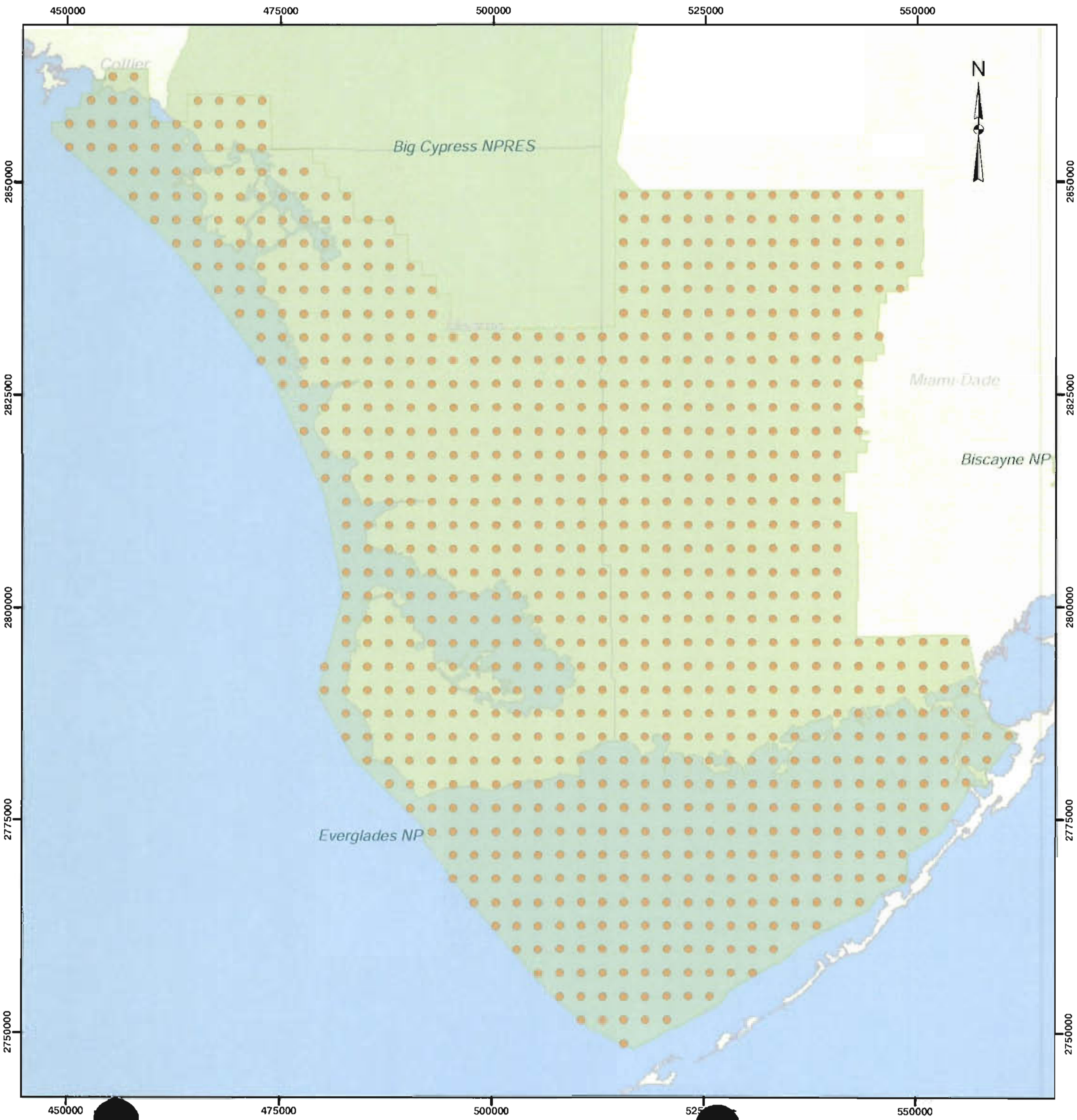
TITLE
AREA MAP

Golder Associates
Gainesville, Florida

PROJECT No. 073-89586-0203		
DESIGN	SM	08/23/2007
GIS	RL	08/23/2007
CHECK	SM	08/23/2007
REVIEW	SM	08/23/2007

SCALE AS SHOWN | REV. 0

FIGURE 1



LEGEND

National Parks and Wildlife Refuge

Everglades Receptor Locations

REFERENCE

Projection: Transverse Mercator Datum: NAD 27 Coordinate System: UTM Zone 17

10 0 10 Kilometers

PROJECT

FPL West County Energy Center Unit 3
Modeling Protocol

TITLE

Everglades National Park
Receptor Locations

PROJECT No.			SCALE AS SHOWN	REV. 0
DESIGN	AB	08 May 2007		
GIS	AB	08 May 2007		
CHECK	SM			
REVIEW	BM			

FPL

FIGURE 2

APPENDIX A

SAMPLE CALPUFF MODEL CONTROL FILE
FOR VISIBILITY IMPACTS

```
FPL WCEC UNIT3 - 1250 MW 'G' CLASS - CALPUFF V 5.8                8/22/07
CT/HRSG AND COOLING TOWER
4-km FLORIDA DOMAIN, 2002, VISIB IMPACTS AT EVERGLADES NP
---------------- Run title (3 lines) ------------------------------------------

                    CALPUFF MODEL CONTROL FILE
                    --------------------------

-------------------------------------------------------------------------------

INPUT GROUP: 0 -- Input and Output File Names

--------------
Default Name  Type          File Name
------------  ----          ---------
CALMET.DAT    input     * METDAT =             *
    or
ISCMET.DAT    input     * ISCDAT =             *
    or
PLMMET.DAT    input     * PLMDAT =             *
    or
PROFILE.DAT   input     * PRFDAT =             *
SURFACE.DAT   input     * SFCDAT =             *
RESTARTB.DAT  input     * RSTARTB=             *
--------------------------------------------------------------------------------
CALPUFF.LST   output    ! PUFLST = EXAMPLE.LST !
CONC.DAT      output    ! CONDAT = EXAMPLE.CON !
DFLX.DAT      output    ! DFDAT  = EXAMPLE.DRY !
WFLX.DAT      output    ! WFDAT  = EXAMPLE.WET !

VISB.DAT      output    ! VISDAT = VISB.DAT    !
RESTARTE.DAT  output    * RSTARTE=             *
--------------------------------------------------------------------------------
Emission Files
--------------
PTEMARB.DAT   input     * PTDAT  =             *
VOLEMARB.DAT  input     * VOLDAT =             *
BAEMARB.DAT   input     * ARDAT  =             *
LNEMARB.DAT   input     * LNDAT  =             *
--------------------------------------------------------------------------------
Other Files
-----------
OZONE.DAT     input     ! OZDAT  =C:\BARTHRO3\OZONE.DAT !
VD.DAT        input     * VDDAT  =             *
CHEM.DAT      input     * CHEMDAT=             *
H2O2.DAT      input     * H2O2DAT=             *
HILL.DAT      input     * HILDAT=             *
HILLRCT.DAT   input     * RCTDAT=             *
COASTLN.DAT   input     * CSTDAT=             *
FLUXBDY.DAT   input     * BDYDAT=             *
BCON.DAT      input     * BCNDAT=             *
DEBUG.DAT     output    * DEBUG =             *
MASSFLX.DAT   output    * FLXDAT=             *
MASSBAL.DAT   output    * BALDAT=             *
FOG.DAT       output    * FOGDAT=             *
--------------------------------------------------------------------------------
All file names will be converted to lower case if LCFILES = T
Otherwise, if LCFILES = F, file names will be converted to UPPER CASE
         T = lower case      ! LCFILES = T !
         F = UPPER CASE
NOTE: (1) file/path names can be up to 70 characters in length


Provision for multiple input files
----------------------------------

     Number of CALMET.DAT files for run (NMETDAT)
                                Default: 1       ! NMETDAT =   36  !

     Number of PTEMARB.DAT files for run (NPTDAT)
                                Default: 0       ! NPTDAT =  0  !

     Number of BAEMARB.DAT files for run (NARDAT)
                                Default: 0       ! NARDAT =  0  !
```

```
    Number of VOLEMARB.DAT files for run (NVOLDAT)
                                    Default: 0       ! NVOLDAT =  0  !

!END!

-------------
Subgroup (0a)
-------------

  The following CALMET.DAT filenames are processed in sequence if NMETDAT>1

Default Name  Type          File Name
------------  ----          ---------
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-01A.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-01B.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-01C.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-02A.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-02B.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-02C.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-03A.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-03B.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-03C.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-04A.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-04B.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-04C.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-05A.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-05B.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-05C.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-06A.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-06B.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-06C.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-07A.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-07B.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-07C.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-08A.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-08B.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-08C.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-09A.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-09B.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-09C.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-10A.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-10B.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-10C.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-11A.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-11B.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-11C.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-12A.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-12B.DAT !  !END!
CALMET.DAT    input    ! METDAT =C:\EPACALMET2002\EPAMET2002-DOM2-12C.DAT !  !END!
--------------------------------------------------------------------------------

INPUT GROUP: 1 -- General run control parameters
--------------

    Option to run all periods found
    in the met. file     (METRUN)   Default: 0       ! METRUN =   0  !

         METRUN = 0 - Run period explicitly defined below
         METRUN = 1 - Run all periods in met. file

     Starting date:   Year (IBYR) -- No default       ! IBYR =  2002 !
     (used only if   Month (IBMO) -- No default       ! IBMO =  1   !
      METRUN = 0)      Day (IBDY) -- No default       ! IBDY =  1   !
                      Hour (IBHR) -- No default       ! IBHR =  1   !

     Note: IBHR is the time at the END of the first hour of the simulation
           (IBHR=1, the first hour of a day, runs from 00:00 to 01:00)

     Base time zone        (XBTZ) -- No default       ! XBTZ = 5.0  !
     The zone is the number of hours that must be
     ADDED to the time to obtain UTC (or GMT)
     Examples: PST = 8., MST = 7.
               CST = 6., EST = 5.

     Length of run (hours) (IRLG) -- No default       ! IRLG = 8760 !
```

```
     Number of chemical species (NSPEC)
                                       Default: 5        ! NSPEC = 12   !

     Number of chemical species
     to be emitted  (NSE)              Default: 3        ! NSE = 10   !

     Flag to stop run after
     SETUP phase (ITEST)               Default: 2        ! ITEST =  2   !
     (Used to allow checking
     of the model inputs, files, etc.)
           ITEST = 1 - STOPS program after SETUP phase
           ITEST = 2 - Continues with execution of program
                       after SETUP

     Restart Configuration:

        Control flag (MRESTART)        Default: 0        ! MRESTART =  0   !

           0 = Do not read or write a restart file
           1 = Read a restart file at the beginning of
               the run
           2 = Write a restart file during run
           3 = Read a restart file at beginning of run
               and write a restart file during run

        Number of periods in Restart
        output cycle (NRESPD)          Default: 0        ! NRESPD =  0   !

           0 = File written only at last period
          >0 = File updated every NRESPD periods

     Meteorological Data Format (METFM)
                                       Default: 1        ! METFM =  1   !

           METFM = 1 - CALMET binary file (CALMET.MET)
           METFM = 2 - ISC ASCII file (ISCMET.MET)
           METFM = 3 - AUSPLUME ASCII file (PLMMET.MET)
           METFM = 4 - CTDM plus tower file (PROFILE.DAT) and
                       surface parameters file (SURFACE.DAT)
           METFM = 5 - AERMET tower file (PROFILE.DAT) and
                       surface parameters file (SURFACE.DAT)

     Meteorological Profile Data Format (MPRFFM)
            (used only for METFM = 1, 2, 3)
                                       Default: 1        ! MPRFFM =  1   !

           MPRFFM = 1 - CTDM plus tower file (PROFILE.DAT)
           MPRFFM = 2 - AERMET tower file (PROFILE.DAT)

     PG sigma-y is adjusted by the factor (AVET/PGTIME)**0.2
     Averaging Time (minutes) (AVET)
                                       Default: 60.0     ! AVET = 60. !
     PG Averaging Time (minutes) (PGTIME)
                                       Default: 60.0     ! PGTIME = 60. !


!END!


--------------------------------------------------------------------------------

INPUT GROUP: 2 -- Technical options
--------------


     Vertical distribution used in the
     near field (MGAUSS)                     Default: 1     ! MGAUSS =  1   !
        0 = uniform
        1 = Gaussian

     Terrain adjustment method
     (MCTADJ)                                Default: 3     ! MCTADJ =  3   !
        0 = no adjustment
        1 = ISC-type of terrain adjustment
```

```
  2 = simple, CALPUFF-type of terrain
      adjustment
  3 = partial plume path adjustment

Subgrid-scale complex terrain
flag (MCTSG)                      Default: 0      ! MCTSG =  0   !
  0 = not modeled
  1 = modeled

Near-field puffs modeled as
elongated slugs? (MSLUG)          Default: 0      ! MSLUG =  0   !
  0 = no
  1 = yes (slug model used)

Transitional plume rise modeled ?
(MTRANS)                          Default: 1      ! MTRANS =  1   !
  0 = no  (i.e., final rise only)
  1 = yes (i.e., transitional rise computed)

Stack tip downwash? (MTIP)        Default: 1      ! MTIP =  1  !
  0 = no  (i.e., no stack tip downwash)
  1 = yes (i.e., use stack tip downwash)

Method used to simulate building
downwash? (MBDW)                  Default: 1      ! MBDW =   1  !
  1 = ISC method
  2 = PRIME method

Vertical wind shear modeled above
stack top? (MSHEAR)               Default: 0      ! MSHEAR =  0  !
  0 = no  (i.e., vertical wind shear not modeled)
  1 = yes (i.e., vertical wind shear modeled)

Puff splitting allowed? (MSPLIT)  Default: 0      ! MSPLIT =  0  !
  0 = no (i.e., puffs not split)
  1 = yes (i.e., puffs are split)

Chemical mechanism flag (MCHEM)   Default: 1      ! MCHEM =  1   !
  0 = chemical transformation not
      modeled
  1 = transformation rates computed
      internally (MESOPUFF II scheme)
  2 = user-specified transformation
      rates used
  3 = transformation rates computed
      internally (RIVAD/ARM3 scheme)
  4 = secondary organic aerosol formation
      computed (MESOPUFF II scheme for OH)

Aqueous phase transformation flag (MAQCHEM)
(Used only if MCHEM = 1, or 3)    Default: 0      ! MAQCHEM =  0   !
  0 = aqueous phase transformation
      not modeled
  1 = transformation rates adjusted
      for aqueous phase reactions

Wet removal modeled ? (MWET)      Default: 1      ! MWET =  1   !
  0 = no
  1 = yes

Dry deposition modeled ? (MDRY)   Default: 1      ! MDRY =  1   !
  0 = no
  1 = yes
  (dry deposition method specified
   for each species in Input Group 3)


Gravitational settling (plume tilt)
modeled ? (MTILT)                 Default: 0      ! MTILT =  0   !
  0 = no
  1 = yes
  (puff center falls at the gravitational
   settling velocity for 1 particle species)

Restrictions:
```

```
    - MDRY  = 1
    - NSPEC = 1  (must be particle species as well)
    - sg    = 0  GEOMETRIC STANDARD DEVIATION in Group 8 is
                 set to zero for a single particle diameter

Method used to compute dispersion
coefficients (MDISP)                  Default: 3     ! MDISP =  3   !

   1 = dispersion coefficients computed from measured values
       of turbulence, sigma v, sigma w
   2 = dispersion coefficients from internally calculated
       sigma v, sigma w using micrometeorological variables
       (u*, w*, L, etc.)
   3 = PG dispersion coefficients for RURAL areas (computed using
       the ISCST multi-segment approximation) and MP coefficients in
       urban areas
   4 = same as 3 except PG coefficients computed using
       the MESOPUFF II eqns.
   5 = CTDM sigmas used for stable and neutral conditions.
       For unstable conditions, sigmas are computed as in
       MDISP = 3, described above. MDISP = 5 assumes that
       measured values are read

Sigma-v/sigma-theta, sigma-w measurements used? (MTURBVW)
(Used only if MDISP = 1 or 5)         Default: 3     ! MTURBVW =  3  !
   1 = use sigma-v or sigma-theta measurements
       from PROFILE.DAT to compute sigma-y
       (valid for METFM = 1, 2, 3, 4, 5)
   2 = use sigma-w measurements
       from PROFILE.DAT to compute sigma-z
       (valid for METFM = 1, 2, 3, 4, 5)
   3 = use both sigma-(v/theta) and sigma-w
       from PROFILE.DAT to compute sigma-y and sigma-z
       (valid for METFM = 1, 2, 3, 4, 5)
   4 = use sigma-theta measurements
       from PLMMET.DAT to compute sigma-y
       (valid only if METFM = 3)

Back-up method used to compute dispersion
when measured turbulence data are
missing (MDISP2)                      Default: 3     ! MDISP2 =  3   !
(used only if MDISP = 1 or 5)
   2 = dispersion coefficients from internally calculated
       sigma v, sigma w using micrometeorological variables
       (u*, w*, L, etc.)
   3 = PG dispersion coefficients for RURAL areas (computed using
       the ISCST multi-segment approximation) and MP coefficients in
       urban areas
   4 = same as 3 except PG coefficients computed using
       the MESOPUFF II eqns.

[DIAGNOSTIC FEATURE]
Method used for Lagrangian timescale for Sigma-y
(used only if MDISP=1,2 or MDISP2=1,2)
(MTAULY)                              Default: 0     ! MTAULY =  0   !
   0 = Draxler default 617.284 (s)
   1 = Computed as Lag. Length / (.75 q) -- after SCIPUFF
  10 < Direct user input (s)             -- e.g., 306.9


[DIAGNOSTIC FEATURE]
Method used for Advective-Decay timescale for Turbulence
(used only if MDISP=2 or MDISP2=2)
(MTAUADV)                             Default: 0     ! MTAUADV =  0  !
   0 = No turbulence advection
   1 = Computed (OPTION NOT IMPLEMENTED)
  10 < Direct user input (s)   -- e.g., 300


Method used to compute turbulence sigma-v &
sigma-w using micrometeorological variables
(Used only if MDISP = 2 or MDISP2 = 2)
(MCTURB)                              Default: 1     ! MCTURB =  1   !
   1 = Standard CALPUFF subroutines
   2 = AERMOD subroutines
```

```
PG sigma-y,z adj. for roughness?      Default: 0     ! MROUGH =  0  !
(MROUGH)
   0 = no
   1 = yes

Partial plume penetration of          Default: 1     ! MPARTL =  1  !
elevated inversion?
(MPARTL)
   0 = no
   1 = yes

Strength of temperature inversion     Default: 0     ! MTINV =  0  !
provided in PROFILE.DAT extended records?
(MTINV)
   0 = no (computed from measured/default gradients)
   1 = yes

PDF used for dispersion under convective conditions?
                                      Default: 0     ! MPDF =  0  !
(MPDF)
   0 = no
   1 = yes

Sub-Grid TIBL module used for shore line?
                                      Default: 0     ! MSGTIBL = 0  !
(MSGTIBL)
   0 = no
   1 = yes

Boundary conditions (concentration) modeled?
                                      Default: 0     ! MBCON = 0  !
(MBCON)
   0 = no
   1 = yes, using formatted BCON.DAT file
   2 = yes, using unformatted CONC.DAT file

Note:  MBCON > 0 requires that the last species modeled
       be 'BCON'.  Mass is placed in species BCON when
       generating boundary condition puffs so that clean
       air entering the modeling domain can be simulated
       in the same way as polluted air.  Specify zero
       emission of species BCON for all regular sources.

Individual source contributions saved?
                                      Default: 0     ! MSOURCE = 0  !
(MSOURCE)
   0 = no
   1 = yes


Analyses of fogging and icing impacts due to emissions from
arrays of mechanically-forced cooling towers can be performed
using CALPUFF in conjunction with a cooling tower emissions
processor (CTEMISS) and its associated postprocessors.  Hourly
emissions of water vapor and temperature from each cooling tower
cell are computed for the current cell configuration and ambient
conditions by CTEMISS. CALPUFF models the dispersion of these
emissions and provides cloud information in a specialized format
for further analysis. Output to FOG.DAT is provided in either
'plume mode' or 'receptor mode' format.

Configure for FOG Model output?
                                      Default: 0     ! MFOG =  0   !
(MFOG)
   0 = no
   1 = yes  - report results in PLUME Mode format
   2 = yes  - report results in RECEPTOR Mode format


Test options specified to see if
they conform to regulatory
values? (MREG)                        Default: 1     ! MREG =  1   !

   0 = NO checks are made
```

```
        1 = Technical options must conform to USEPA
            Long Range Transport (LRT) guidance
                       METFM     1 or 2
                       AVET      60. (min)
                       PGTIME    60. (min)
                       MGAUSS    1
                       MCTADJ    3
                       MTRANS    1
                       MTIP      1
                       MCHEM     1 or 3 (if modeling SOx, NOx)
                       MWET      1
                       MDRY      1
                       MDISP     2 or 3
                       MPDF      0 if MDISP=3
                                 1 if MDISP=2
                       MROUGH    0
                       MPARTL    1
                       SYTDEP    550. (m)
                       MHFTSZ    0
                       SVMIN     0.5 (m/s)

!END!

--------------------------------------------------------------------------------

INPUT GROUP: 3a, 3b -- Species list
-------------------

------------
Subgroup (3a)
------------

  The following species are modeled:

! CSPEC =          SO2 !         !END!
! CSPEC =          SO4 !         !END!
! CSPEC =          NOX !         !END!
! CSPEC =         HNO3 !         !END!
! CSPEC =          NO3 !         !END!
! CSPEC =       PM0063 !         !END!
! CSPEC =       PM0100 !         !END!
! CSPEC =       PM0125 !         !END!
! CSPEC =       PM0250 !         !END!
! CSPEC =       PM0600 !         !END!
! CSPEC =       PM1000 !         !END!
! CSPEC =           CO !         !END!

                                                          Dry                 OUTPUT GROUP
    SPECIES          MODELED            EMITTED         DEPOSITED               NUMBER
     NAME         (0=NO, 1=YES)      (0=NO, 1=YES)      (0=NO,                 (0=NONE,
   (Limit: 12                                            1=COMPUTED-GAS        1=1st CGRUP,
    Characters                                           2=COMPUTED-PARTICLE   2=2nd CGRUP,
    in length)                                           3=USER-SPECIFIED)     3= etc.)

!          SO2  =         1,                1,             1,                  0   !
!          SO4  =         1,                1,             2,                  0   !
!          NOX  =         1,                1,             1,                  0   !
!         HNO3  =         1,                0,             1,                  0   !
!          NO3  =         1,                0,             2,                  0   !
!       PM0063  =         1,                1,             2,                  1   !
!       PM0100  =         1,                1,             2,                  1   !
!       PM0125  =         1,                1,             2,                  1   !
!       PM0250  =         1,                1,             2,                  1   !
!       PM0600  =         1,                1,             2,                  1   !
!       PM1000  =         1,                1,             2,                  1   !
!           CO  =         1,                1,             0,                  0   !

!END!

-------------
Subgroup (3b)
-------------
  The following names are used for Species-Groups in which results
```

```
  for certain species are combined (added) prior to output.  The
  CGRUP name will be used as the species name in output files.
  Use this feature to model specific particle-size distributions
  by treating each size-range as a separate species.
  Order must be consistent with 3(a) above.


INPUT GROUP: 4 -- Map Projection and Grid control parameters
--------------

     Projection for all (X,Y):
     -------------------------

     Map projection
     (PMAP)                     Default: UTM     ! PMAP = LCC  !

         UTM :  Universal Transverse Mercator
         TTM :  Tangential Transverse Mercator
         LCC :  Lambert Conformal Conic
          PS :  Polar Stereographic
          EM :  Equatorial Mercator
        LAZA :  Lambert Azimuthal Equal Area

     False Easting and Northing (km) at the projection origin
     (Used only if PMAP= TTM, LCC, or LAZA)
     (FEAST)                    Default=0.0      ! FEAST  = 0.000  !
     (FNORTH)                   Default=0.0      ! FNORTH = 0.000  !

     UTM zone (1 to 60)
     (Used only if PMAP=UTM)
     (IUTMZN)                   No Default       ! IUTMZN =  0 !

     Hemisphere for UTM projection?
     (Used only if PMAP=UTM)
     (UTMHEM)                   Default: N       ! UTMHEM = N  !
         N   :  Northern hemisphere projection
         S   :  Southern hemisphere projection

     Latitude and Longitude (decimal degrees) of projection origin
     (Used only if PMAP= TTM, LCC, PS, EM, or LAZA)
     (RLAT0)                    No Default       ! RLAT0 =  40N !
     (RLON0)                    No Default       ! RLON0 =  97W !

         TTM :  RLON0 identifies central (true N/S) meridian of projection
                RLAT0 selected for convenience
         LCC :  RLON0 identifies central (true N/S) meridian of projection
                RLAT0 selected for convenience
         PS  :  RLON0 identifies central (grid N/S) meridian of projection
                RLAT0 selected for convenience
         EM  :  RLON0 identifies central meridian of projection
                RLAT0 is REPLACED by 0.0N (Equator)
         LAZA:  RLON0 identifies longitude of tangent-point of mapping plane
                RLAT0 identifies latitude of tangent-point of mapping plane

     Matching parallel(s) of latitude (decimal degrees) for projection
     (Used only if PMAP= LCC or PS)
     (XLAT1)                    No Default       ! XLAT1 = 33N  !
     (XLAT2)                    No Default       ! XLAT2 = 45N  !

         LCC :  Projection cone slices through Earth's surface at XLAT1 and XLAT2
         PS  :  Projection plane slices through Earth at XLAT1
                (XLAT2 is not used)

     ----------
     Note:  Latitudes and longitudes should be positive, and include a
            letter N,S,E, or W indicating north or south latitude, and
            east or west longitude.  For example,
            35.9  N Latitude  =  35.9N
            118.7 E Longitude = 118.7E


     Datum-region
     ------------

     The Datum-Region for the coordinates is identified by a character
```

string. Many mapping products currently available use the model of the Earth known as the World Geodetic System 1984 (WGS-84). Other local models may be in use, and their selection in CALMET will make its output consistent with local mapping products. The list of Datum-Regions with official transformation parameters is provided by the National Imagery and Mapping Agency (NIMA).

```
NIMA Datum - Regions(Examples)
------------------------------------------------------------------------------
WGS-84    WGS-84 Reference Ellipsoid and Geoid, Global coverage (WGS84)
NAS-C     NORTH AMERICAN 1927 Clarke 1866 Spheroid, MEAN FOR CONUS (NAD27)
NAR-C     NORTH AMERICAN 1983 GRS 80 Spheroid, MEAN FOR CONUS (NAD83)
NWS-84    NWS 6370KM Radius, Sphere
ESR-S     ESRI REFERENCE 6371KM Radius, Sphere

Datum-region for output coordinates
(DATUM)                     Default: WGS-84    ! DATUM = NWS-84 !
```

METEOROLOGICAL Grid:

```
     Rectangular grid defined for projection PMAP,
     with X the Easting and Y the Northing coordinate

            No. X grid cells (NX)      No default     ! NX = 263   !
            No. Y grid cells (NY)      No default     ! NY = 206    !
        No. vertical layers (NZ)       No default     ! NZ =  10   !

           Grid spacing (DGRIDKM)      No default     ! DGRIDKM = 4. !
                                       Units: km

                 Cell face heights
                     (ZFACE(nz+1))     No defaults
                                       Units: m
  * ZFACE = .0, 20.0, 40.0, 80.0, 160.0, 300.0, 600.0, 1000.0, 1500.0, 2200.0,
            3000.0 *
  ! ZFACE = 0.,20.,40.,80.,160.,320.,640.,1200.,2000.,3000.,4000. !

            Reference Coordinates
           of SOUTHWEST corner of
                 grid cell(1, 1):

            X coordinate (XORIGKM)     No default     ! XORIGKM =  721.995 !
            Y coordinate (YORIGKM)     No default     ! YORIGKM = -1598.000 !
                                      Units: km
```

COMPUTATIONAL Grid:

The computational grid is identical to or a subset of the MET. grid. The lower left (LL) corner of the computational grid is at grid point (IBCOMP, JBCOMP) of the MET. grid. The upper right (UR) corner of the computational grid is at grid point (IECOMP, JECOMP) of the MET. grid. The grid spacing of the computational grid is the same as the MET. grid.

```
   X index of LL corner (IBCOMP)      No default     ! IBCOMP =  1  !
             (1 <= IBCOMP <= NX)

   Y index of LL corner (JBCOMP)      No default     ! JBCOMP =  1  !
             (1 <= JBCOMP <= NY)


   X index of UR corner (IECOMP)      No default     ! IECOMP = 263 !
             (1 <= IECOMP <= NX)

   Y index of UR corner (JECOMP)      No default     ! JECOMP = 206 !
             (1 <= JECOMP <= NY)
```

SAMPLING Grid (GRIDDED RECEPTORS):

The lower left (LL) corner of the sampling grid is at grid point (IBSAMP, JBSAMP) of the MET. grid. The upper right (UR) corner of the sampling grid is at grid point (IESAMP, JESAMP) of the MET. grid.

```
The sampling grid must be identical to or a subset of the computational
grid.  It may be a nested grid inside the computational grid.
The grid spacing of the sampling grid is DGRIDKM/MESHDN.

   Logical flag indicating if gridded
   receptors are used (LSAMP)        Default: T      ! LSAMP = F !
   (T=yes, F=no)

   X index of LL corner (IBSAMP)      No default      ! IBSAMP =  1   !
    (IBCOMP <= IBSAMP <= IECOMP)

   Y index of LL corner (JBSAMP)      No default      ! JBSAMP =  1   !
    (JBCOMP <= JBSAMP <= JECOMP)


   X index of UR corner (IESAMP)      No default      ! IESAMP =  263 !
    (IBCOMP <= IESAMP <= IECOMP)

   Y index of UR corner (JESAMP)      No default      ! JESAMP =  206  !
    (JBCOMP <= JESAMP <= JECOMP)


   Nesting factor of the sampling
    grid (MESHDN)                     Default: 1      ! MESHDN =  1   !
    (MESHDN is an integer >= 1)

!END!

-------------------------------------------------------------------------------


INPUT GROUP: 5 -- Output Options
--------------
                                               *                          *
     FILE                       DEFAULT VALUE             VALUE THIS RUN
     ----                       -------------             --------------

   Concentrations (ICON)              1                   !  ICON =  1    !
   Dry Fluxes (IDRY)                  1                   !  IDRY =  1    !
   Wet Fluxes (IWET)                  1                   !  IWET =  1    !
   2D Temperature (IT2D)              0                   !  IT2D =  0    !
   2D Density (IRHO)                  0                   !  IRHO =  0    !
   Relative Humidity (IVIS)           1                   !  IVIS =  1    !
    (relative humidity file is
     required for visibility
     analysis)
   Use data compression option in output file?
   (LCOMPRS)                             Default: T         ! LCOMPRS = T !

  *
    0 = Do not create file, 1 = create file


    QA PLOT FILE OUTPUT OPTION:

       Create a standard series of output files (e.g.
       locations of sources, receptors, grids ...)
       suitable for plotting?
       (IQAPLOT)                         Default: 1         !  IQAPLOT =  1    !
         0 = no
         1 = yes

    DIAGNOSTIC MASS FLUX OUTPUT OPTIONS:

       Mass flux across specified boundaries
       for selected species reported?
       (IMFLX)                           Default: 0         ! IMFLX =  0  !
         0 = no
         1 = yes (FLUXBDY.DAT and MASSFLX.DAT filenames
                  are specified in Input Group 0)

       Mass balance for each species
       reported?
       (IMBAL)                           Default: 0         ! IMBAL =  0  !
```

```
        0 = no
        1 = yes (MASSBAL.DAT filename is
             specified in Input Group 0)


   LINE PRINTER OUTPUT OPTIONS:

      Print concentrations (ICPRT)    Default: 0           ! ICPRT =  0   !
      Print dry fluxes (IDPRT)        Default: 0           ! IDPRT =  0   !
      Print wet fluxes (IWPRT)        Default: 0           ! IWPRT =  0   !
      (0 = Do not print, 1 = Print)

      Concentration print interval
      (ICFRQ) in timesteps            Default: 1           ! ICFRQ =  24  !
      Dry flux print interval
      (IDFRQ) in timesteps            Default: 1           ! IDFRQ =  1   !
      Wet flux print interval
      (IWFRQ) in timesteps            Default: 1           ! IWFRQ =  1   !

      Units for Line Printer Output
      (IPRTU)                         Default: 1           ! IPRTU =  3   !
                      for             for
                 Concentration     Deposition
          1 =       g/m**3          g/m**2/s
          2 =      mg/m**3         mg/m**2/s
          3 =      ug/m**3         ug/m**2/s
          4 =      ng/m**3         ng/m**2/s
          5 =     Odour Units

      Messages tracking progress of run
      written to the screen ?
      (IMESG)                         Default: 2           ! IMESG =  2   !
        0 = no
        1 = yes (advection step, puff ID)
        2 = yes (YYYYJJJHH, # old puffs, # emitted puffs)


     SPECIES (or GROUP for combined species) LIST FOR OUTPUT OPTIONS

                 ---- CONCENTRATIONS ----   ------ DRY FLUXES ------   ------ WET FLUXES ------   -- MASS
FLUX --
   SPECIES
   /GROUP        PRINTED?  SAVED ON DISK?   PRINTED?  SAVED ON DISK?   PRINTED?  SAVED ON DISK?   SAVED ON
DISK?
   -------       ------------------------   ------------------------   ------------------------   -----------
----
!         SO2 =     0,          1,            0,          1,            0,          1,            0    !
!         SO4 =     0,          1,            0,          1,            0,          1,            0    !
!         NOX =     0,          1,            0,          1,            0,          1,            0    !
!        HNO3 =     0,          1,            0,          1,            0,          1,            0    !
!         NO3 =     0,          1,            0,          1,            0,          1,            0    !
!        PM10 =     0,          1,            0,          1,            0,          1,            0    !
!          CO =     0,          1,            0,          1,            0,          1,            0    !

     OPTIONS FOR PRINTING "DEBUG" QUANTITIES (much output)

       Logical for debug output
       (LDEBUG)                                 Default: F      ! LDEBUG = F !

       First puff to track
       (IPFDEB)                                 Default: 1      ! IPFDEB =  1  !

       Number of puffs to track
       (NPFDEB)                                 Default: 1      ! NPFDEB =  1  !

       Met. period to start output
       (NN1)                                    Default: 1      ! NN1 =  1   !

       Met. period to end output
       (NN2)                                    Default: 10     ! NN2 =  10  !

!END!

-------------------------------------------------------------------------------
```

```
INPUT GROUP: 6a, 6b, & 6c -- Subgrid scale complex terrain inputs
-------------------------

---------------
Subgroup (6a)
---------------
       Number of terrain features (NHILL)       Default: 0     ! NHILL =  0   !

       Number of special complex terrain
       receptors  (NCTREC)                      Default: 0     ! NCTREC =  0   !

       Terrain and CTSG Receptor data for
       CTSG hills input in CTDM format ?
       (MHILL)                                  No Default     ! MHILL =  2   !
       1 = Hill and Receptor data created
           by CTDM processors & read from
           HILL.DAT and HILLRCT.DAT files
       2 = Hill data created by OPTHILL &
           input below in Subgroup (6b);
           Receptor data in Subgroup (6c)

       Factor to convert horizontal dimensions  Default: 1.0   ! XHILL2M = 1. !
       to meters (MHILL=1)

       Factor to convert vertical dimensions    Default: 1.0   ! ZHILL2M = 1. !
       to meters (MHILL=1)

       X-origin of CTDM system relative to      No Default     ! XCTDMKM = 0.0E00 !
       CALPUFF coordinate system, in Kilometers (MHILL=1)

       Y-origin of CTDM system relative to      No Default     ! YCTDMKM = 0.0E00 !
       CALPUFF coordinate system, in Kilometers (MHILL=1)

! END !

---------------
Subgroup (6b)
---------------

                      1 **
     HILL information


HILL          XC        YC       THETAH  ZGRID  RELIEF    EXPO 1    EXPO 2   SCALE 1    SCALE 2    AMAX1
AMAX2
 NO.         (km)      (km)      (deg.)   (m)     (m)       (m)       (m)       (m)        (m)        (m)
(m)
----         ----      ----      ------  -----  ------    ------    ------   -------    -------    -----
-----

---------------
Subgroup (6c)
---------------

    COMPLEX TERRAIN RECEPTOR INFORMATION

                        XRCT        YRCT        ZRCT          XHH
                        (km)        (km)         (m)
                       ------       -----       ------        ----


-------------------
1
     Description of Complex Terrain Variables:
          XC, YC  = Coordinates of center of hill
          THETAH  = Orientation of major axis of hill (clockwise from
                    North)
          ZGRID   = Height of the  0  of the grid above mean sea
                    level
          RELIEF  = Height of the crest of the hill above the grid elevation
          EXPO 1  = Hill-shape exponent for the major axis
          EXPO 2  = Hill-shape exponent for the major axis
          SCALE 1 = Horizontal length scale along the major axis
```

```
        SCALE 2 = Horizontal length scale along the minor axis
        AMAX    = Maximum allowed axis length for the major axis
        BMAX    = Maximum allowed axis length for the major axis

        XRCT, YRCT = Coordinates of the complex terrain receptors
        ZRCT    = Height of the ground (MSL) at the complex terrain
                  Receptor
        XHH     = Hill number associated with each complex terrain receptor
                   (NOTE: MUST BE ENTERED AS A REAL NUMBER)

   **
     NOTE: DATA for each hill and CTSG receptor are treated as a separate
           input subgroup and therefore must end with an input group terminator.

-------------------------------------------------------------------------------


INPUT GROUP: 7 -- Chemical parameters for dry deposition of gases
--------------

      SPECIES     DIFFUSIVITY      ALPHA STAR      REACTIVITY     MESOPHYLL RESISTANCE     HENRY'S LAW
COEFFICIENT
       NAME        (cm**2/s)                                             (s/cm)               (dimensionless)
      -------     -----------      ----------      ----------     --------------------     ------------------
----

!          SO2 =     0.1509,          1000,             8,                0,                    0.04 !
!          NOX =     0.1656,             1,             8,                5,                     3.5 !
!         HNO3 =     0.1628,             1,            18,                0,              0.00000008 !

!END!

-------------------------------------------------------------------------------


INPUT GROUP: 8 -- Size parameters for dry deposition of particles
--------------

     For SINGLE SPECIES, the mean and standard deviation are used to
     compute a deposition velocity for NINT (see group 9) size-ranges,
     and these are then averaged to obtain a mean deposition velocity.

     For GROUPED SPECIES, the size distribution should be explicitly
     specified (by the 'species' in the group), and the standard deviation
     for each should be entered as 0.  The model will then use the
     deposition velocity for the stated mean diameter.

      SPECIES      GEOMETRIC MASS MEAN        GEOMETRIC STANDARD
       NAME             DIAMETER                   DEVIATION
                        (microns)                  (microns)
      -------      -------------------        -----------------
!          SO4 =          0.48,                      2.    !
!          NO3 =          0.48,                      2.    !
!       PM0063 =          0.63,                      0.    !
!       PM0100 =          1.00,                      0.    !
!       PM0125 =          1.25,                      0.    !
!       PM0250 =          2.50,                      0.    !
!       PM0600 =          6.00,                      0.    !
!       PM1000 =         10.00,                      0.    !

!END!

-------------------------------------------------------------------------------


INPUT GROUP: 9 -- Miscellaneous dry deposition parameters
--------------

     Reference cuticle resistance (s/cm)
     (RCUTR)                           Default: 30     !  RCUTR = 30.0 !
     Reference ground resistance  (s/cm)
     (RGR)                             Default: 10     !    RGR = 10.0 !
     Reference pollutant reactivity
```

```
    (REACTR)                          Default: 8     ! REACTR = 8.0 !

    Number of particle-size intervals used to
    evaluate effective particle deposition velocity
    (NINT)                            Default: 9     !  NINT =  9  !

    Vegetation state in unirrigated areas
    (IVEG)                            Default: 1     !  IVEG =  1   !
       IVEG=1 for active and unstressed vegetation
       IVEG=2 for active and stressed vegetation
       IVEG=3 for inactive vegetation

!END!

--------------------------------------------------------------------------------

INPUT GROUP: 10 -- Wet Deposition Parameters
---------------

                      Scavenging Coefficient -- Units: (sec)**(-1)

       Pollutant       Liquid Precip.       Frozen Precip.
       ---------       --------------       --------------
!          SO2 =          3.0E-05,              0.0E00 !
!          SO4 =          1.0E-04,             3.0E-05 !
!         HNO3 =          6.0E-05,              0.0E00 !
!          NO3 =          1.0E-04,             3.0E-05 !
!       PM0063 =          1.0E-04,             3.0E-05 !
!       PM0100 =          1.0E-04,             3.0E-05 !
!       PM0125 =          1.0E-04,             3.0E-05 !
!       PM0250 =          1.0E-04,             3.0E-05 !
!       PM0600 =          1.0E-04,             3.0E-05 !
!       PM1000 =          1.0E-04,             3.0E-05 !

!END!

--------------------------------------------------------------------------------

INPUT GROUP: 11 -- Chemistry Parameters
---------------

     Ozone data input option (MOZ)     Default: 1            ! MOZ =  1   !
     (Used only if MCHEM = 1, 3, or 4)
        0 = use a monthly background ozone value
        1 = read hourly ozone concentrations from
            the OZONE.DAT data file

     Monthly ozone concentrations
     (Used only if MCHEM = 1, 3, or 4 and
      MOZ = 0 or MOZ = 1 and all hourly O3 data missing)
     (BCKO3) in ppb                    Default: 12*80.
     !  BCKO3 = 12*50. !

     Monthly ammonia concentrations
     (Used only if MCHEM = 1, or 3)
     (BCKNH3) in ppb                   Default: 12*10.
     !  BCKNH3 = 12*0.5 !

     Nighttime SO2 loss rate (RNITE1)
     in percent/hour                   Default: 0.2          ! RNITE1 = .2 !

     Nighttime NOx loss rate (RNITE2)
     in percent/hour                   Default: 2.0          ! RNITE2 = 2.0 !

     Nighttime HNO3 formation rate (RNITE3)
     in percent/hour                   Default: 2.0          ! RNITE3 = 2.0 !

     H2O2 data input option (MH2O2)    Default: 1            ! MH2O2 =  1   !
     (Used only if MAQCHEM = 1)
        0 = use a monthly background H2O2 value
```

```
        1 = read hourly H2O2 concentrations from
            the H2O2.DAT data file

    Monthly H2O2 concentrations
    (Used only if MQACHEM = 1 and
     MH2O2 = 0 or MH2O2 = 1 and all hourly H2O2 data missing)
    (BCKH2O2) in ppb                   Default: 12*1.
    !  BCKH2O2 = 12*1 !


--- Data for SECONDARY ORGANIC AEROSOL (SOA) Option
    (used only if MCHEM = 4)

    The SOA module uses monthly values of:
         Fine particulate concentration in ug/m^3 (BCKPMF)
         Organic fraction of fine particulate     (OFRAC)
         VOC / NOX ratio (after reaction)         (VCNX)
    to characterize the air mass when computing
    the formation of SOA from VOC emissions.
    Typical values for several distinct air mass types are:

       Month    1    2    3    4    5    6    7    8    9    10   11   12
               Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

    Clean Continental
       BCKPMF   1.   1.   1.   1.   1.   1.   1.   1.   1.   1.   1.   1.
       OFRAC  .15  .15  .20  .20  .20  .20  .20  .20  .20  .20  .20  .15
       VCNX    50.  50.  50.  50.  50.  50.  50.  50.  50.  50.  50.  50.

    Clean Marine (surface)
       BCKPMF  .5   .5   .5   .5   .5   .5   .5   .5   .5   .5   .5   .5
       OFRAC  .25  .25  .30  .30  .30  .30  .30  .30  .30  .30  .30  .25
       VCNX    50.  50.  50.  50.  50.  50.  50.  50.  50.  50.  50.  50.

    Urban - low biogenic (controls present)
       BCKPMF  30.  30.  30.  30.  30.  30.  30.  30.  30.  30.  30.  30.
       OFRAC  .20  .20  .25  .25  .25  .25  .25  .25  .20  .20  .20  .20
       VCNX     4.   4.   4.   4.   4.   4.   4.   4.   4.   4.   4.   4.

    Urban - high biogenic (controls present)
       BCKPMF  60.  60.  60.  60.  60.  60.  60.  60.  60.  60.  60.  60.
       OFRAC  .25  .25  .30  .30  .30  .55  .55  .55  .35  .35  .35  .25
       VCNX    15.  15.  15.  15.  15.  15.  15.  15.  15.  15.  15.  15.

    Regional Plume
       BCKPMF  20.  20.  20.  20.  20.  20.  20.  20.  20.  20.  20.  20.
       OFRAC  .20  .20  .25  .35  .25  .40  .40  .40  .30  .30  .30  .20
       VCNX    15.  15.  15.  15.  15.  15.  15.  15.  15.  15.  15.  15.

    Urban - no controls present
       BCKPMF 100. 100. 100. 100. 100. 100. 100. 100. 100. 100. 100. 100.
       OFRAC  .30  .30  .35  .35  .35  .55  .55  .55  .35  .35  .35  .30
       VCNX     2.   2.   2.   2.   2.   2.   2.   2.   2.   2.   2.   2.

    Default: Clean Continental
    !  BCKPMF = 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00 !
    !  OFRAC  = 0.15, 0.15, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.15 !
    !  VCNX   = 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00 !


!END!


-------------------------------------------------------------------------------


INPUT GROUP: 12 -- Misc. Dispersion and Computational Parameters
---------------

     Horizontal size of puff (m) beyond which
     time-dependent dispersion equations (Heffter)
     are used to determine sigma-y and
     sigma-z (SYTDEP)                         Default: 550.   ! SYTDEP = 5.5E02 !

     Switch for using Heffter equation for sigma z
```

```
as above (0 = Not use Heffter; 1 = use Heffter
(MHFTSZ)                                    Default: 0      ! MHFTSZ =  0   !

Stability class used to determine plume
growth rates for puffs above the boundary
layer (JSUP)                                Default: 5      ! JSUP =  5   !

Vertical dispersion constant for stable
conditions (k1 in Eqn. 2.7-3)  (CONK1)      Default: 0.01   ! CONK1 = .01 !

Vertical dispersion constant for neutral/
unstable conditions (k2 in Eqn. 2.7-4)
(CONK2)                                     Default: 0.1    ! CONK2 = .1 !

Factor for determining Transition-point from
Schulman-Scire to Huber-Snyder Building Downwash
scheme (SS used for Hs < Hb + TBD * HL)
(TBD)                                       Default: 0.5    ! TBD = .5 !
   TBD < 0   ==> always use Huber-Snyder
   TBD = 1.5 ==> always use Schulman-Scire
   TBD = 0.5 ==> ISC Transition-point

Range of land use categories for which
urban dispersion is assumed
(IURB1, IURB2)                              Default: 10     ! IURB1 =  10  !
                                                     19     ! IURB2 =  19  !

Site characterization parameters for single-point Met data files ---------
(needed for METFM = 2,3,4,5)

   Land use category for modeling domain
   (ILANDUIN)                               Default: 20     ! ILANDUIN =  20  !

   Roughness length (m) for modeling domain
   (Z0IN)                                   Default: 0.25   ! Z0IN = .25 !

   Leaf area index for modeling domain
   (XLAIIN)                                 Default: 3.0    ! XLAIIN = 3.0 !

   Elevation above sea level (m)
   (ELEVIN)                                 Default: 0.0    ! ELEVIN = .0 !

   Latitude (degrees) for met location
   (XLATIN)                                 Default: -999.  ! XLATIN = -999.0 !

   Longitude (degrees) for met location
   (XLONIN)                                 Default: -999.  ! XLONIN = -999.0 !

Specialized information for interpreting single-point Met data files -----

   Anemometer height (m) (Used only if METFM = 2,3)
   (ANEMHT)                                 Default: 10.    ! ANEMHT = 10.0 !

   Form of lateral turbulance data in PROFILE.DAT file
   (Used only if METFM = 4,5 or MTURBVW = 1 or 3)
   (ISIGMAV)                                Default: 1      ! ISIGMAV =  1  !
       0 = read sigma-theta
       1 = read sigma-v

   Choice of mixing heights (Used only if METFM = 4)
   (IMIXCTDM)                               Default: 0      ! IMIXCTDM =  0  !
       0 = read PREDICTED mixing heights
       1 = read OBSERVED mixing heights

Maximum length of a slug (met. grid units)
(XMXLEN)                                    Default: 1.0    ! XMXLEN = 1.0 !

Maximum travel distance of a puff/slug (in
grid units) during one sampling step
(XSAMLEN)                                   Default: 1.0    ! XSAMLEN = 1.0 !

Maximum Number of slugs/puffs release from
one source during one time step
(MXNEW)                                     Default: 99     ! MXNEW =  99   !
```

```
Maximum Number of sampling steps for
one puff/slug during one time step
(MXSAM)                                   Default: 99     ! MXSAM =  99   !

Number of iterations used when computing
the transport wind for a sampling step
that includes gradual rise (for CALMET
and PROFILE winds)
(NCOUNT)                                  Default: 2      ! NCOUNT =  2   !

Minimum sigma y for a new puff/slug (m)
(SYMIN)                                   Default: 1.0    ! SYMIN = 1.0  !

Minimum sigma z for a new puff/slug (m)
(SZMIN)                                   Default: 1.0    ! SZMIN = 1.0  !

Default minimum turbulence velocities sigma-v and sigma-w
for each stability class over land and over water (m/s)
(SVMIN(12) and SWMIN(12))

                  ----------  LAND  ----------       ---------  WATER  ----------
   Stab Class :  A    B    C    D    E    F          A    B    C    D    E    F
                ---  ---  ---  ---  ---  ---        ---  ---  ---  ---  ---  ---
Default SVMIN : .50, .50, .50, .50, .50, .50,      .37, .37, .37, .37, .37, .37
Default SWMIN : .20, .12, .08, .06, .03, .016,     .20, .12, .08, .06, .03, .016

      ! SVMIN = 0.500, 0.500, 0.500, 0.500, 0.500, 0.500, 0.370, 0.370, 0.370, 0.370, 0.370, 0.370!
      ! SWMIN = 0.200, 0.120, 0.080, 0.060, 0.030, 0.016, 0.200, 0.120, 0.080, 0.060, 0.030, 0.016!

Divergence criterion for dw/dz across puff
used to initiate adjustment for horizontal
convergence (1/s)
Partial adjustment starts at CDIV(1), and
full adjustment is reached at CDIV(2)
(CDIV(2))                                 Default: 0.0,0.0  ! CDIV = .0, .0 !

Minimum wind speed (m/s) allowed for
non-calm conditions. Also used as minimum
speed returned when using power-law
extrapolation toward surface
(WSCALM)                                  Default: 0.5    ! WSCALM = .5 !

Maximum mixing height (m)
(XMAXZI)                                  Default: 3000.  ! XMAXZI = 3000.0 !

Minimum mixing height (m)
(XMINZI)                                  Default: 50.    ! XMINZI = 50.0 !

Default wind speed classes --
5 upper bounds (m/s) are entered;
the 6th class has no upper limit
(WSCAT(5))                    Default   :
                              ISC RURAL : 1.54, 3.09, 5.14, 8.23, 10.8 (10.8+)

                     Wind Speed Class :  1     2     3     4     5
                                        ---   ---   ---   ---   ---
                              ! WSCAT = 1.54, 3.09, 5.14, 8.23, 10.80 !

Default wind speed profile power-law
exponents for stabilities 1-6
(PLX0(6))                     Default   : ISC RURAL values
                              ISC RURAL : .07, .07, .10, .15, .35, .55
                              ISC URBAN : .15, .15, .20, .25, .30, .30

                      Stability Class :  A     B     C     D     E     F
                                        ---   ---   ---   ---   ---   ---
                               ! PLX0 = 0.07, 0.07, 0.10, 0.15, 0.35, 0.55 !

Default potential temperature gradient
for stable classes E, F (degK/m)
(PTG0(2))                     Default: 0.020, 0.035
                               ! PTG0 = 0.020,   0.035 !

Default plume path coefficients for
each stability class (used when option
```

```
for partial plume height terrain adjustment
is selected -- MCTADJ=3)
(PPC(6))                   Stability Class :  A     B     C     D     E     F
                              Default  PPC : .50,  .50,  .50,  .50,  .35,  .35
                                             ---   ---   ---   ---   ---   ---
                                    !  PPC = 0.50, 0.50, 0.50, 0.50, 0.35, 0.35 !

Slug-to-puff transition criterion factor
equal to sigma-y/length of slug
(SL2PF)                           Default: 10.        ! SL2PF = 10.0 !

Puff-splitting control variables ------------------------

  VERTICAL SPLIT
  --------------

  Number of puffs that result every time a puff
  is split - nsplit=2 means that 1 puff splits
  into 2
  (NSPLIT)                        Default:   3        ! NSPLIT =  3  !

  Time(s) of a day when split puffs are eligible to
  be split once again; this is typically set once
  per day, around sunset before nocturnal shear develops.
  24 values: 0 is midnight (00:00) and 23 is 11 PM (23:00)
  0=do not re-split    1=eligible for re-split
  (IRESPLIT(24))                  Default:  Hour 17 = 1
  !  IRESPLIT = 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,1,0,0,0,0,0,0 !

  Split is allowed only if last hour's mixing
  height (m) exceeds a minimum value
  (ZISPLIT)                       Default: 100.       ! ZISPLIT = 100.0 !

  Split is allowed only if ratio of last hour's
  mixing ht to the maximum mixing ht experienced
  by the puff is less than a maximum value (this
  postpones a split until a nocturnal layer develops)
  (ROLDMAX)                       Default: 0.25       ! ROLDMAX = 0.25 !


  HORIZONTAL SPLIT
  ----------------

  Number of puffs that result every time a puff
  is split - nsplith=5 means that 1 puff splits
  into 5
  (NSPLITH)                       Default:   5        ! NSPLITH =  5  !

  Minimum sigma-y (Grid Cells Units) of puff
  before it may be split
  (SYSPLITH)                      Default:  1.0       ! SYSPLITH = 1.0 !

  Minimum puff elongation rate (SYSPLITH/hr) due to
  wind shear, before it may be split
  (SHSPLITH)                      Default:  2.        ! SHSPLITH = 2.0 !

  Minimum concentration (g/m^3) of each
  species in puff before it may be split
  Enter array of NSPEC values; if a single value is
  entered, it will be used for ALL species
  (CNSPLITH)                      Default:  1.0E-07   ! CNSPLITH = 1.0E-07 !

 Integration control variables ------------------------

   Fractional convergence criterion for numerical SLUG
   sampling integration
   (EPSSLUG)                      Default:   1.0e-04  ! EPSSLUG = 1.0E-04 !

   Fractional convergence criterion for numerical AREA
   source integration
   (EPSAREA)                      Default:   1.0e-06  ! EPSAREA = 1.0E-06 !

   Trajectory step-length (m) used for numerical rise
   integration
   (DSRISE)                       Default:   1.0      ! DSRISE = 1.0 !
```

```
      Boundary Condition (BC) Puff control variables -----------------------

      Minimum height (m) to which BC puffs are mixed as they are emitted
      (MBCON=2 ONLY).  Actual height is reset to the current mixing height
      at the release point if greater than this minimum.
      (HTMINBC)                          Default:   500.     ! HTMINBC = 500.0 !

      Search radius (km) about a receptor for sampling nearest BC puff.
      BC puffs are typically emitted with a spacing of one grid cell
      length, so the search radius should be greater than DGRIDKM.
      (RSAMPBC)                          Default:   10.      ! RSAMPBC = 10.0 !

      Near-Surface depletion adjustment to concentration profile used when
      sampling BC puffs?
      (MDEPBC)                           Default:   1        ! MDEPBC =  1  !
         0 = Concentration is NOT adjusted for depletion
         1 = Adjust Concentration for depletion

!END!


--------------------------------------------------------------------------------

INPUT GROUPS: 13a, 13b, 13c, 13d -- Point source parameters
--------------------------------

---------------
Subgroup (13a)
---------------

     Number of point sources with
     parameters provided below      (NPT1)  No default  !  NPT1 =  1 !

     Units used for point source
     emissions below                (IPTU)  Default: 1  !  IPTU =   3  !
           1 =       g/s
           2 =      kg/hr
           3 =      lb/hr
           4 =     tons/yr
           5 =     Odour Unit * m**3/s  (vol. flux of odour compound)
           6 =     Odour Unit * m**3/min
           7 =     metric tons/yr

     Number of source-species
     combinations with variable
     emissions scaling factors
     provided below in (13d)        (NSPT1) Default: 0  !  NSPT1 = 0  !

     Number of point sources with
     variable emission parameters
     provided in external file      (NPT2)  No default  !  NPT2 =  0  !

     (If NPT2 > 0, these point
     source emissions are read from
     the file: PTEMARB.DAT)

!END!

---------------
Subgroup (13b)
---------------
                                                   a
          POINT SOURCE: CONSTANT DATA
          ----------------------------
                                                                                     b           c
  Source       X          Y       Stack    Base     Stack    Exit  Exit     Bldg.  Emission
   No.     Coordinate Coordinate Height Elevation Diameter  Vel.  Temp.    Dwash   Rates
              (km)       (km)      (m)      (m)      (m)    (m/s) (deg. K)
  ------   ---------- ---------- ------  ------   -------- ----- -------- -----  --------
****************   EMISSION RATES ARE IN LB/HR    ***********************

  1  ! SRCNAM = WCEC3!
```

```
 1  ! X = 1669.925, -1327.892, 45.4, 6.1, 6.7, 18.0, 358, 1.0, 12.0, 1.9, 57.9, 0.0, 0.0, 1.5, 4.7, 0.0, 2.8,
11.6, 14.7, 37.2 !
 !END!

--------

    a
     Data for each source are treated as a separate input subgroup
     and therefore must end with an input group terminator.

     SRCNAM  is a 12-character name for a source
             (No default)
     X       is an array holding the source data listed by the column headings
             (No default)
     SIGYZI  is an array holding the initial sigma-y and sigma-z (m)
             (Default: 0.,0.)
     FMFAC   is a vertical momentum flux factor (0. or 1.0) used to represent
             the effect of rain-caps or other physical configurations that
             reduce momentum rise associated with the actual exit velocity.
             (Default: 1.0  -- full momentum used)
     ZPLTFM  is the platform height (m) for sources influenced by an isolated
             structure that has a significant open area between the surface
             and the bulk of the structure, such as an offshore oil platform.
             The Base Elevation is


    b
     0. = No building downwash modeled, 1. = downwash modeled
     1. = Downwash modeled for buildings resting on the surface
     2. = Downwash modeled for buildings raised above the surface (ZPLTFM > 0.)
     NOTE: must be entered as a REAL number (i.e., with decimal point)

    c
     An emission rate must be entered for every pollutant modeled.
     Enter emission rate of zero for secondary pollutants that are
     modeled, but not emitted.  Units are specified by IPTU
     (e.g. 1 for g/s).

---------------
Subgroup (13c)
---------------
 1  ! SRCNAM = WCEC3 !
       1  !  HEIGHT =        !

       1  !  WIDTH =         !

       1  !  LENGTH =        !

       1  !  XBADJ =         !

       1  !  YBADJ =         !

!END!

          BUILDING DIMENSION DATA FOR SOURCES SUBJECT TO DOWNWASH
          -------------------------------------------------------
Source                                                                a
 No.      Effective building height, width, length and X/Y offset (in meters)
          every 10 degrees.  LENGTH, XBADJ, and YBADJ are only needed for
          MBDW=2 (PRIME downwash option)
------    --------------------------------------------------------------------

Subgroup (13c)


--------

    a
     Building height, width, length, and X/Y offset from the source are treated
     as a separate input subgroup for each source and therefore must end with
     an input group terminator.  The X/Y offset is the position, relative to the
     stack, of the center of the upwind face of the projected building, with the
     x-axis pointing along the flow direction.

---------------
```

```
Subgroup (13d)
---------------
                                                 a
          POINT SOURCE: VARIABLE EMISSIONS DATA
          ---------------------------------------

     Use this subgroup to describe temporal variations in the emission
     rates given in 13b.  Factors entered multiply the rates in 13b.
     Skip sources here that have constant emissions.  For more elaborate
     variation in source parameters, use PTEMARB.DAT and NPT2 > 0.

     IVARY determines the type of variation, and is source-specific:
     (IVARY)                                   Default: 0
           0 =       Constant
           1 =       Diurnal cycle (24 scaling factors: hours 1-24)
           2 =       Monthly cycle (12 scaling factors: months 1-12)
           3 =       Hour & Season (4 groups of 24 hourly scaling factors,
                                    where first group is DEC-JAN-FEB)
           4 =       Speed & Stab. (6 groups of 6 scaling factors, where
                                    first group is Stability Class A,
                                    and the speed classes have upper
                                    bounds (m/s) defined in Group 12
           5 =       Temperature   (12 scaling factors, where temperature
                                    classes have upper bounds (C) of:
                                    0, 5, 10, 15, 20, 25, 30, 35, 40,
                                    45, 50, 50+)


--------
    a
     Data for each species are treated as a separate input subgroup
     and therefore must end with an input group terminator.


--------------------------------------------------------------------------------


INPUT GROUPS: 14a, 14b, 14c, 14d -- Area source parameters
--------------------------------

---------------
Subgroup (14a)
---------------

     Number of polygon area sources with
     parameters specified below (NAR1)       No default  !  NAR1 =  0   !

     Units used for area source
     emissions below            (IARU)       Default: 1  !  IARU =   1  !
           1 =        g/m**2/s
           2 =       kg/m**2/hr
           3 =       lb/m**2/hr
           4 =     tons/m**2/yr
           5 =     Odour Unit * m/s  (vol. flux/m**2 of odour compound)
           6 =     Odour Unit * m/min
           7 =     metric tons/m**2/yr

     Number of source-species
     combinations with variable
     emissions scaling factors
     provided below in (14d)        (NSAR1) Default: 0  !  NSAR1 =  0  !

     Number of buoyant polygon area sources
     with variable location and emission
     parameters (NAR2)                       No default  !  NAR2 =  0   !
     (If NAR2 > 0, ALL parameter data for
     these sources are read from the file: BAEMARB.DAT)

!END!

---------------
Subgroup (14b)
---------------
                                        a
          AREA SOURCE: CONSTANT DATA
```

Source No.	Effect. Height (m)	Base Elevation (m)	Initial Sigma z (m)	Emission Rates[b]

----

[a] Data for each source are treated as a separate input subgroup and therefore must end with an input group terminator.

[b] An emission rate must be entered for every pollutant modeled. Enter emission rate of zero for secondary pollutants that are modeled, but not emitted. Units are specified by IARU (e.g. 1 for g/m**2/s).

Subgroup (14c)

COORDINATES (UTM-km) FOR EACH VERTEX(4) OF EACH POLYGON

Source No.	Ordered list of X followed by list of Y, grouped by source[a]

----

[a] Data for each source are treated as a separate input subgroup and therefore must end with an input group terminator.

Subgroup (14d)

AREA SOURCE: VARIABLE EMISSIONS DATA[a]

Use this subgroup to describe temporal variations in the emission rates given in 14b. Factors entered multiply the rates in 14b. Skip sources here that have constant emissions. For more elaborate variation in source parameters, use BAEMARB.DAT and NAR2 > 0.

```
IVARY determines the type of variation, and is source-specific:
(IVARY)                                Default: 0
      0 =       Constant
      1 =       Diurnal cycle (24 scaling factors: hours 1-24)
      2 =       Monthly cycle (12 scaling factors: months 1-12)
      3 =       Hour & Season (4 groups of 24 hourly scaling factors,
                               where first group is DEC-JAN-FEB)
      4 =       Speed & Stab. (6 groups of 6 scaling factors, where
                               first group is Stability Class A,
                               and the speed classes have upper
                               bounds (m/s) defined in Group 12
      5 =       Temperature   (12 scaling factors, where temperature
                               classes have upper bounds (C) of:
                               0, 5, 10, 15, 20, 25, 30, 35, 40,
                               45, 50, 50+)
```

----

[a] Data for each species are treated as a separate input subgroup and therefore must end with an input group terminator.

INPUT GROUPS: 15a, 15b, 15c -- Line source parameters

```
---------------
Subgroup (15a)
---------------

     Number of buoyant line sources
     with variable location and emission
     parameters (NLN2)                          No default  !  NLN2 =  0   !

     (If NLN2 > 0, ALL parameter data for
      these sources are read from the file: LNEMARB.DAT)

     Number of buoyant line sources (NLINES)    No default   ! NLINES =  0  !

     Units used for line source
     emissions below            (ILNU)          Default: 1  !  ILNU =   1  !
           1 =        g/s
           2 =       kg/hr
           3 =       lb/hr
           4 =     tons/yr
           5 =     Odour Unit * m**3/s  (vol. flux of odour compound)
           6 =     Odour Unit * m**3/min
           7 =     metric tons/yr

     Number of source-species
     combinations with variable
     emissions scaling factors
     provided below in (15c)       (NSLN1) Default: 0  !  NSLN1 =  0  !

     Maximum number of segments used to model
     each line (MXNSEG)                         Default: 7   ! MXNSEG =  7  !

     The following variables are required only if NLINES > 0.  They are
     used in the buoyant line source plume rise calculations.

        Number of distances at which            Default: 6   ! NLRISE =  6  !
        transitional rise is computed

        Average building length (XL)            No default   ! XL = .0 !
                                                (in meters)

        Average building height (HBL)           No default   ! HBL = .0 !
                                                (in meters)

        Average building width (WBL)            No default   ! WBL = .0 !
                                                (in meters)

        Average line source width (WML)         No default   ! WML = .0 !
                                                (in meters)

        Average separation between buildings (DXL)  No default   ! DXL = .0 !
                                                (in meters)

        Average buoyancy parameter (FPRIMEL)    No default   ! FPRIMEL = .0 !
                                                (in m**4/s**3)

!END!

---------------
Subgroup (15b)
---------------

          BUOYANT LINE SOURCE: CONSTANT DATA
          ----------------------------------
                                                                                a
Source    Beg. X      Beg. Y     End. X     End. Y    Release    Base        Emission
 No.    Coordinate  Coordinate Coordinate Coordinate  Height   Elevation      Rates
           (km)        (km)       (km)       (km)       (m)       (m)
------  ----------  ---------- ---------  ----------  -------  ---------    ---------

--------

     a
      Data for each source are treated as a separate input subgroup
      and therefore must end with an input group terminator.
```

b
An emission rate must be entered for every pollutant modeled. Enter emission rate of zero for secondary pollutants that are modeled, but not emitted. Units are specified by ILNTU (e.g. 1 for g/s).

Subgroup (15c)

```
      BUOYANT LINE SOURCE: VARIABLE EMISSIONS DATA [a]
      ---------------------------------------------

 Use this subgroup to describe temporal variations in the emission
 rates given in 15b.  Factors entered multiply the rates in 15b.
 Skip sources here that have constant emissions.

 IVARY determines the type of variation, and is source-specific:
 (IVARY)                             Default: 0
       0 =       Constant
       1 =       Diurnal cycle (24 scaling factors: hours 1-24)
       2 =       Monthly cycle (12 scaling factors: months 1-12)
       3 =       Hour & Season (4 groups of 24 hourly scaling factors,
                               where first group is DEC-JAN-FEB)
       4 =       Speed & Stab. (6 groups of 6 scaling factors, where
                               first group is Stability Class A,
                               and the speed classes have upper
                               bounds (m/s) defined in Group 12
       5 =       Temperature   (12 scaling factors, where temperature
                               classes have upper bounds (C) of:
                               0, 5, 10, 15, 20, 25, 30, 35, 40,
                               45, 50, 50+)
```

----
a
Data for each species are treated as a separate input subgroup and therefore must end with an input group terminator.

INPUT GROUPS: 16a, 16b, 16c -- Volume source parameters

Subgroup (16a)

```
 Number of volume sources with
 parameters provided in 16b,c (NVL1)     No default  !  NVL1 =  0   !

 Units used for volume source
 emissions below in 16b       (IVLU)     Default: 1  !  IVLU =   1  !
       1 =        g/s
       2 =        kg/hr
       3 =        lb/hr
       4 =     tons/yr
       5 =     Odour Unit * m**3/s  (vol. flux of odour compound)
       6 =     Odour Unit * m**3/min
       7 =     metric tons/yr

 Number of source-species
 combinations with variable
 emissions scaling factors
 provided below in (16c)      (NSVL1)    Default: 0  !  NSVL1 =  0  !

 Number of volume sources with
 variable location and emission
 parameters                   (NVL2)     No default  !  NVL2 =   0   !

 (If NVL2 > 0, ALL parameter data for
```

```
      these sources are read from the VOLEMARB.DAT file(s) )

!END!

---------------
Subgroup (16b)
---------------
                                           a
          VOLUME SOURCE: CONSTANT DATA
          ------------------------------
                                                                              b
     X UTM       Y UTM      Effect.    Base      Initial    Initial   Emission
  Coordinate  Coordinate   Height   Elevation   Sigma y    Sigma z     Rates
     (km)        (km)        (m)       (m)        (m)        (m)
  ----------  ----------   ------    ------    --------   --------   --------


--------
    a
     Data for each source are treated as a separate input subgroup
     and therefore must end with an input group terminator.

    b
     An emission rate must be entered for every pollutant modeled.
     Enter emission rate of zero for secondary pollutants that are
     modeled, but not emitted.  Units are specified by IVLU
     (e.g. 1 for g/s).

---------------
Subgroup (16c)
---------------
                                                   a
         VOLUME SOURCE: VARIABLE EMISSIONS DATA
         ----------------------------------------

     Use this subgroup to describe temporal variations in the emission
     rates given in 16b.  Factors entered multiply the rates in 16b.
     Skip sources here that have constant emissions.  For more elaborate
     variation in source parameters, use VOLEMARB.DAT and NVL2 > 0.

     IVARY determines the type of variation, and is source-specific:
     (IVARY)                              Default: 0
           0 =       Constant
           1 =       Diurnal cycle (24 scaling factors: hours 1-24)
           2 =       Monthly cycle (12 scaling factors: months 1-12)
           3 =       Hour & Season (4 groups of 24 hourly scaling factors,
                                    where first group is DEC-JAN-FEB)
           4 =       Speed & Stab. (6 groups of 6 scaling factors, where
                                    first group is Stability Class A,
                                    and the speed classes have upper
                                    bounds (m/s) defined in Group 12
           5 =       Temperature   (12 scaling factors, where temperature
                                    classes have upper bounds (C) of:
                                    0, 5, 10, 15, 20, 25, 30, 35, 40,
                                    45, 50, 50+)


--------
    a
     Data for each species are treated as a separate input subgroup
     and therefore must end with an input group terminator.


--------------------------------------------------------------------------------

INPUT GROUPS: 17a & 17b -- Non-gridded (discrete) receptor information
----------------------

---------------
Subgroup (17a)
---------------

     Number of non-gridded receptors (NREC)  No default  !  NREC = 281 !
```

```
!END!

---------------
Subgroup (17b)
---------------
                                                   a
           NON-GRIDDED (DISCRETE) RECEPTOR DATA
           ------------------------------------

                       X            Y          Ground         Height   b
Receptor          Coordinate   Coordinate     Elevation    Above Ground
  No.                (km)         (km)           (m)            (m)
--------          ----------   ----------     ---------    ------------
RECEPTORS OBTAINED FROM THE NPS/FWS EXTRACTION PROGRAM
ALL RECEPTORS ARE LCC (KM)

901 EVERGLADES NP RECEPTORS
RECEPTORS OBTAINED FROM THE NPS/FWS EXTRACTION PROGRAM
ALL RECEPTORS ARE LCC (KM)

     1 ! X =    1660.127,  -1542.381,         0,        0.000!   !END!
     2 ! X =    1654.541,  -1540.491,         0,        0.000!   !END!
     3 ! X =    1657.082,  -1540.035,         0,        0.000!   !END!
     4 ! X =    1659.624,  -1539.579,         0,        0.000!   !END!
     5 ! X =    1662.165,  -1539.122,         0,        0.000!   !END!
     6 ! X =    1664.706,  -1538.665,         0,        0.000!   !END!
     7 ! X =    1651.498,  -1538.144,         0,        0.000!   !END!
     8 ! X =    1654.039,  -1537.689,         0,        0.000!   !END!
     9 ! X =    1656.580,  -1537.234,         0,        0.000!   !END!
    10 ! X =    1659.121,  -1536.778,         0,        0.000!   !END!
    11 ! X =    1661.661,  -1536.321,         0,        0.000!   !END!
    12 ! X =    1664.201,  -1535.864,         0,        0.000!   !END!
    13 ! X =    1666.742,  -1535.406,         0,        0.000!   !END!
    14 ! X =    1669.282,  -1534.947,         0,        0.000!   !END!
    15 ! X =    1648.457,  -1535.797,         0,        0.000!   !END!
    16 ! X =    1650.998,  -1535.343,         0,        0.000!   !END!
    17 ! X =    1653.538,  -1534.888,         0,        0.000!   !END!
    18 ! X =    1656.078,  -1534.433,         0,        0.000!   !END!
    19 ! X =    1658.617,  -1533.977,         0,        0.000!   !END!
    20 ! X =    1661.157,  -1533.520,         0,        0.000!   !END!
    21 ! X =    1663.697,  -1533.063,         0,        0.000!   !END!
    22 ! X =    1666.236,  -1532.605,         0,        0.000!   !END!
    23 ! X =    1668.775,  -1532.146,         0,        0.000!   !END!
    24 ! X =    1671.315,  -1531.687,         0,        0.000!   !END!
    25 ! X =    1673.854,  -1531.227,         0,        0.000!   !END!
    26 ! X =    1645.418,  -1533.449,         0,        0.000!   !END!
    27 ! X =    1647.957,  -1532.996,         0,        0.000!   !END!
    28 ! X =    1650.497,  -1532.542,         0,        0.000!   !END!
    29 ! X =    1653.036,  -1532.087,         0,        0.000!   !END!
    30 ! X =    1655.575,  -1531.632,         0,        0.000!   !END!
    31 ! X =    1658.114,  -1531.177,         0,        0.000!   !END!
    32 ! X =    1660.653,  -1530.720,         0,        0.000!   !END!
    33 ! X =    1663.192,  -1530.263,         0,        0.000!   !END!
    34 ! X =    1665.731,  -1529.805,         0,        0.000!   !END!
    35 ! X =    1668.269,  -1529.346,         0,        0.000!   !END!
    36 ! X =    1670.808,  -1528.887,         0,        0.000!   !END!
    37 ! X =    1673.346,  -1528.427,         0,        0.000!   !END!
    38 ! X =    1675.884,  -1527.966,         0,        0.000!   !END!
    39 ! X =    1642.380,  -1531.100,         0,        0.000!   !END!
    40 ! X =    1644.918,  -1530.648,         0,        0.000!   !END!
    41 ! X =    1647.457,  -1530.195,         0,        0.000!   !END!
    42 ! X =    1649.996,  -1529.741,         0,        0.000!   !END!
    43 ! X =    1652.534,  -1529.287,         0,        0.000!   !END!
    44 ! X =    1655.073,  -1528.832,         0,        0.000!   !END!
    45 ! X =    1657.611,  -1528.376,         0,        0.000!   !END!
    46 ! X =    1660.149,  -1527.920,         0,        0.000!   !END!
    47 ! X =    1662.687,  -1527.463,         0,        0.000!   !END!
    48 ! X =    1665.225,  -1527.005,         0,        0.000!   !END!
    49 ! X =    1667.763,  -1526.547,         0,        0.000!   !END!
    50 ! X =    1670.301,  -1526.088,         0,        0.000!   !END!
    51 ! X =    1672.838,  -1525.628,         0,        0.000!   !END!
    52 ! X =    1675.376,  -1525.167,         0,        0.000!   !END!
    53 ! X =    1677.913,  -1524.706,         0,        0.000!   !END!
    54 ! X =    1680.450,  -1524.244,         0,        0.000!   !END!
    55 ! X =    1639.343,  -1528.750,         0,        0.000!   !END!
```

```
 56 ! X =    1641.881,  -1528.299,        0,       0.000!    !END!
 57 ! X =    1644.419,  -1527.847,        0,       0.000!    !END!
 58 ! X =    1646.957,  -1527.394,        0,       0.000!    !END!
 59 ! X =    1649.495,  -1526.941,        0,       0.000!    !END!
 60 ! X =    1652.033,  -1526.487,        0,       0.000!    !END!
 61 ! X =    1654.571,  -1526.032,        0,       0.000!    !END!
 62 ! X =    1657.108,  -1525.576,        0,       0.000!    !END!
 63 ! X =    1659.645,  -1525.120,        0,       0.000!    !END!
 64 ! X =    1662.183,  -1524.663,        0,       0.000!    !END!
 65 ! X =    1664.720,  -1524.206,        0,       0.000!    !END!
 66 ! X =    1667.257,  -1523.747,        0,       0.000!    !END!
 67 ! X =    1669.794,  -1523.288,        0,       0.000!    !END!
 68 ! X =    1672.331,  -1522.829,        0,       0.000!    !END!
 69 ! X =    1674.867,  -1522.368,        0,       0.000!    !END!
 70 ! X =    1677.404,  -1521.907,        0,       0.000!    !END!
 71 ! X =    1679.940,  -1521.445,        0,       0.000!    !END!
 72 ! X =    1682.476,  -1520.983,        0,       0.000!    !END!
 73 ! X =    1685.012,  -1520.520,        0,       0.000!    !END!
 74 ! X =    1636.308,  -1526.400,        0,       0.000!    !END!
 75 ! X =    1638.845,  -1525.950,        0,       0.000!    !END!
 76 ! X =    1641.383,  -1525.498,        0,       0.000!    !END!
 77 ! X =    1643.920,  -1525.046,        0,       0.000!    !END!
 78 ! X =    1646.457,  -1524.594,        0,       0.000!    !END!
 79 ! X =    1648.995,  -1524.141,        0,       0.000!    !END!
 80 ! X =    1651.531,  -1523.687,        0,       0.000!    !END!
 81 ! X =    1654.068,  -1523.232,        0,       0.000!    !END!
 82 ! X =    1656.605,  -1522.777,        0,       0.000!    !END!
 83 ! X =    1659.142,  -1522.320,        0,       0.000!    !END!
 84 ! X =    1661.678,  -1521.864,        0,       0.000!    !END!
 85 ! X =    1664.215,  -1521.406,        0,       0.000!    !END!
 86 ! X =    1666.751,  -1520.948,        0,       0.000!    !END!
 87 ! X =    1669.287,  -1520.489,        0,       0.000!    !END!
 88 ! X =    1671.823,  -1520.030,        0,       0.000!    !END!
 89 ! X =    1674.359,  -1519.569,        0,       0.000!    !END!
 90 ! X =    1676.895,  -1519.108,        0,       0.000!    !END!
 91 ! X =    1679.430,  -1518.647,        0,       0.000!    !END!
 92 ! X =    1681.966,  -1518.184,        0,       0.000!    !END!
 93 ! X =    1684.501,  -1517.721,        0,       0.000!    !END!
 94 ! X =    1687.036,  -1517.258,        0,       0.000!    !END!
 95 ! X =    1689.571,  -1516.793,        0,       0.000!    !END!
 96 ! X =    1635.811,  -1523.599,        0,       0.000!    !END!
 97 ! X =    1638.348,  -1523.149,        0,       0.000!    !END!
 98 ! X =    1640.884,  -1522.698,        0,       0.000!    !END!
 99 ! X =    1643.421,  -1522.246,        0,       0.000!    !END!
100 ! X =    1645.958,  -1521.794,        0,       0.000!    !END!
101 ! X =    1648.494,  -1521.341,        0,       0.000!    !END!
102 ! X =    1651.030,  -1520.887,        0,       0.000!    !END!
103 ! X =    1653.566,  -1520.432,        0,       0.000!    !END!
104 ! X =    1656.102,  -1519.977,        0,       0.000!    !END!
105 ! X =    1658.638,  -1519.521,        0,       0.000!    !END!
106 ! X =    1661.174,  -1519.065,        0,       0.000!    !END!
107 ! X =    1663.709,  -1518.607,        0,       0.000!    !END!
108 ! X =    1666.245,  -1518.149,        0,       0.000!    !END!
109 ! X =    1668.780,  -1517.690,        0,       0.000!    !END!
110 ! X =    1671.315,  -1517.231,        0,       0.000!    !END!
111 ! X =    1673.850,  -1516.771,        0,       0.000!    !END!
112 ! X =    1676.385,  -1516.310,        0,       0.000!    !END!
113 ! X =    1678.920,  -1515.849,        0,       0.000!    !END!
114 ! X =    1681.455,  -1515.386,        0,       0.000!    !END!
115 ! X =    1683.990,  -1514.923,        0,       0.000!    !END!
116 ! X =    1686.524,  -1514.460,        0,       0.000!    !END!
117 ! X =    1689.058,  -1513.995,        0,       0.000!    !END!
118 ! X =    1632.778,  -1521.249,        0,       0.000!    !END!
119 ! X =    1635.314,  -1520.799,        0,       0.000!    !END!
120 ! X =    1637.850,  -1520.349,        0,       0.000!    !END!
121 ! X =    1640.386,  -1519.898,        0,       0.000!    !END!
122 ! X =    1642.922,  -1519.446,        0,       0.000!    !END!
123 ! X =    1645.458,  -1518.994,        0,       0.000!    !END!
124 ! X =    1647.993,  -1518.541,        0,       0.000!    !END!
125 ! X =    1650.529,  -1518.087,        0,       0.000!    !END!
126 ! X =    1653.064,  -1517.633,        0,       0.000!    !END!
127 ! X =    1655.599,  -1517.178,        0,       0.000!    !END!
128 ! X =    1658.134,  -1516.722,        0,       0.000!    !END!
129 ! X =    1660.669,  -1516.266,        0,       0.000!    !END!
130 ! X =    1663.204,  -1515.808,        0,       0.000!    !END!
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131	! X =	1665.739,	-1515.351,	0,	0.000!	!END!
132	! X =	1668.273,	-1514.892,	0,	0.000!	!END!
133	! X =	1670.808,	-1514.433,	0,	0.000!	!END!
134	! X =	1673.342,	-1513.973,	0,	0.000!	!END!
135	! X =	1675.876,	-1513.512,	0,	0.000!	!END!
136	! X =	1678.410,	-1513.051,	0,	0.000!	!END!
137	! X =	1680.944,	-1512.589,	0,	0.000!	!END!
138	! X =	1683.478,	-1512.126,	0,	0.000!	!END!
139	! X =	1686.012,	-1511.662,	0,	0.000!	!END!
140	! X =	1688.545,	-1511.198,	0,	0.000!	!END!
141	! X =	1691.079,	-1510.733,	1,	0.000!	!END!
142	! X =	1629.747,	-1518.897,	0,	0.000!	!END!
143	! X =	1632.282,	-1518.449,	0,	0.000!	!END!
144	! X =	1634.817,	-1517.999,	0,	0.000!	!END!
145	! X =	1637.353,	-1517.549,	0,	0.000!	!END!
146	! X =	1639.888,	-1517.098,	0,	0.000!	!END!
147	! X =	1642.423,	-1516.647,	0,	0.000!	!END!
148	! X =	1644.958,	-1516.195,	0,	0.000!	!END!
149	! X =	1647.493,	-1515.742,	0,	0.000!	!END!
150	! X =	1650.027,	-1515.288,	0,	0.000!	!END!
151	! X =	1652.562,	-1514.834,	0,	0.000!	!END!
152	! X =	1655.096,	-1514.379,	0,	0.000!	!END!
153	! X =	1657.631,	-1513.923,	0,	0.000!	!END!
154	! X =	1660.165,	-1513.467,	0,	0.000!	!END!
155	! X =	1662.699,	-1513.010,	0,	0.000!	!END!
156	! X =	1665.233,	-1512.552,	0,	0.000!	!END!
157	! X =	1667.767,	-1512.094,	0,	0.000!	!END!
158	! X =	1670.300,	-1511.635,	0,	0.000!	!END!
159	! X =	1672.834,	-1511.175,	1,	0.000!	!END!
160	! X =	1675.367,	-1510.714,	1,	0.000!	!END!
161	! X =	1677.901,	-1510.253,	0,	0.000!	!END!
162	! X =	1680.434,	-1509.791,	0,	0.000!	!END!
163	! X =	1682.967,	-1509.328,	0,	0.000!	!END!
164	! X =	1685.500,	-1508.865,	0,	0.000!	!END!
165	! X =	1688.033,	-1508.401,	0,	0.000!	!END!
166	! X =	1690.565,	-1507.936,	0,	0.000!	!END!
167	! X =	1693.098,	-1507.471,	0,	0.000!	!END!
168	! X =	1626.717,	-1516.545,	0,	0.000!	!END!
169	! X =	1629.251,	-1516.097,	0,	0.000!	!END!
170	! X =	1631.786,	-1515.649,	1,	0.000!	!END!
171	! X =	1634.321,	-1515.200,	0,	0.000!	!END!
172	! X =	1636.855,	-1514.750,	0,	0.000!	!END!
173	! X =	1639.390,	-1514.299,	1,	0.000!	!END!
174	! X =	1641.924,	-1513.848,	0,	0.000!	!END!
175	! X =	1644.458,	-1513.396,	0,	0.000!	!END!
176	! X =	1646.992,	-1512.943,	0,	0.000!	!END!
177	! X =	1649.526,	-1512.489,	0,	0.000!	!END!
178	! X =	1652.060,	-1512.035,	0,	0.000!	!END!
179	! X =	1654.594,	-1511.580,	0,	0.000!	!END!
180	! X =	1657.127,	-1511.125,	0,	0.000!	!END!
181	! X =	1659.661,	-1510.669,	0,	0.000!	!END!
182	! X =	1662.194,	-1510.212,	0,	0.000!	!END!
183	! X =	1664.727,	-1509.754,	0,	0.000!	!END!
184	! X =	1667.260,	-1509.296,	0,	0.000!	!END!
185	! X =	1669.793,	-1508.837,	0,	0.000!	!END!
186	! X =	1672.326,	-1508.377,	0,	0.000!	!END!
187	! X =	1674.858,	-1507.917,	0,	0.000!	!END!
188	! X =	1677.391,	-1507.456,	0,	0.000!	!END!
189	! X =	1679.923,	-1506.994,	0,	0.000!	!END!
190	! X =	1682.456,	-1506.531,	0,	0.000!	!END!
191	! X =	1684.988,	-1506.068,	0,	0.000!	!END!
192	! X =	1687.520,	-1505.604,	0,	0.000!	!END!
193	! X =	1690.052,	-1505.140,	0,	0.000!	!END!
194	! X =	1692.584,	-1504.674,	0,	0.000!	!END!
195	! X =	1695.115,	-1504.208,	0,	0.000!	!END!
196	! X =	1623.688,	-1514.192,	0,	0.000!	!END!
197	! X =	1626.222,	-1513.745,	0,	0.000!	!END!
198	! X =	1628.756,	-1513.298,	1,	0.000!	!END!
199	! X =	1631.290,	-1512.849,	1,	0.000!	!END!
200	! X =	1633.824,	-1512.400,	1,	0.000!	!END!
201	! X =	1636.358,	-1511.950,	1,	0.000!	!END!
202	! X =	1638.892,	-1511.500,	1,	0.000!	!END!
203	! X =	1641.425,	-1511.049,	1,	0.000!	!END!
204	! X =	1643.959,	-1510.597,	1,	0.000!	!END!
205	! X =	1646.492,	-1510.144,	1,	0.000!	!END!

206	! X =	1649.025,	-1509.691,	0,	0.000!	!END!
207	! X =	1651.558,	-1509.237,	0,	0.000!	!END!
208	! X =	1654.091,	-1508.782,	0,	0.000!	!END!
209	! X =	1656.624,	-1508.327,	0,	0.000!	!END!
210	! X =	1659.156,	-1507.871,	1,	0.000!	!END!
211	! X =	1661.689,	-1507.414,	1,	0.000!	!END!
212	! X =	1664.221,	-1506.956,	1,	0.000!	!END!
213	! X =	1666.754,	-1506.498,	0,	0.000!	!END!
214	! X =	1669.286,	-1506.039,	0,	0.000!	!END!
215	! X =	1671.818,	-1505.580,	0,	0.000!	!END!
216	! X =	1674.350,	-1505.120,	0,	0.000!	!END!
217	! X =	1676.881,	-1504.659,	0,	0.000!	!END!
218	! X =	1679.413,	-1504.197,	0,	0.000!	!END!
219	! X =	1681.944,	-1503.735,	0,	0.000!	!END!
220	! X =	1684.476,	-1503.272,	0,	0.000!	!END!
221	! X =	1687.007,	-1502.808,	0,	0.000!	!END!
222	! X =	1689.538,	-1502.343,	0,	0.000!	!END!
223	! X =	1692.069,	-1501.878,	0,	0.000!	!END!
224	! X =	1694.600,	-1501.412,	1,	0.000!	!END!
225	! X =	1697.131,	-1500.946,	0,	0.000!	!END!
226	! X =	1620.661,	-1511.839,	0,	0.000!	!END!
227	! X =	1623.195,	-1511.393,	0,	0.000!	!END!
228	! X =	1625.728,	-1510.946,	0,	0.000!	!END!
229	! X =	1628.261,	-1510.498,	1,	0.000!	!END!
230	! X =	1630.795,	-1510.050,	1,	0.000!	!END!
231	! X =	1633.328,	-1509.601,	1,	0.000!	!END!
232	! X =	1635.861,	-1509.151,	1,	0.000!	!END!
233	! X =	1638.394,	-1508.701,	1,	0.000!	!END!
234	! X =	1640.926,	-1508.250,	1,	0.000!	!END!
235	! X =	1643.459,	-1507.798,	1,	0.000!	!END!
236	! X =	1645.992,	-1507.346,	1,	0.000!	!END!
237	! X =	1648.524,	-1506.892,	1,	0.000!	!END!
238	! X =	1651.056,	-1506.439,	1,	0.000!	!END!
239	! X =	1653.588,	-1505.984,	1,	0.000!	!END!
240	! X =	1656.120,	-1505.529,	1,	0.000!	!END!
241	! X =	1658.652,	-1505.073,	0,	0.000!	!END!
242	! X =	1661.184,	-1504.616,	1,	0.000!	!END!
243	! X =	1663.716,	-1504.159,	1,	0.000!	!END!
244	! X =	1666.247,	-1503.701,	1,	0.000!	!END!
245	! X =	1668.778,	-1503.242,	1,	0.000!	!END!
246	! X =	1671.310,	-1502.783,	1,	0.000!	!END!
247	! X =	1673.841,	-1502.323,	0,	0.000!	!END!
248	! X =	1676.372,	-1501.862,	0,	0.000!	!END!
249	! X =	1678.903,	-1501.400,	0,	0.000!	!END!
250	! X =	1681.433,	-1500.938,	0,	0.000!	!END!
251	! X =	1683.964,	-1500.475,	0,	0.000!	!END!
252	! X =	1686.494,	-1500.012,	0,	0.000!	!END!
253	! X =	1689.025,	-1499.547,	0,	0.000!	!END!
254	! X =	1691.555,	-1499.082,	0,	0.000!	!END!
255	! X =	1694.085,	-1498.617,	1,	0.000!	!END!
256	! X =	1696.615,	-1498.150,	0,	0.000!	!END!
257	! X =	1699.145,	-1497.683,	0,	0.000!	!END!
258	! X =	1620.168,	-1509.039,	0,	0.000!	!END!
259	! X =	1622.701,	-1508.593,	1,	0.000!	!END!
260	! X =	1625.234,	-1508.147,	1,	0.000!	!END!
261	! X =	1627.766,	-1507.699,	1,	0.000!	!END!
262	! X =	1630.299,	-1507.251,	1,	0.000!	!END!
263	! X =	1632.831,	-1506.802,	1,	0.000!	!END!
264	! X =	1635.364,	-1506.353,	1,	0.000!	!END!
265	! X =	1637.896,	-1505.902,	1,	0.000!	!END!
266	! X =	1640.428,	-1505.451,	1,	0.000!	!END!
267	! X =	1642.959,	-1505.000,	1,	0.000!	!END!
268	! X =	1645.491,	-1504.547,	1,	0.000!	!END!
269	! X =	1648.023,	-1504.094,	1,	0.000!	!END!
270	! X =	1650.554,	-1503.641,	1,	0.000!	!END!
271	! X =	1653.086,	-1503.186,	1,	0.000!	!END!
272	! X =	1655.617,	-1502.731,	1,	0.000!	!END!
273	! X =	1658.148,	-1502.275,	1,	0.000!	!END!
274	! X =	1660.679,	-1501.819,	1,	0.000!	!END!
275	! X =	1663.210,	-1501.362,	1,	0.000!	!END!
276	! X =	1665.741,	-1500.904,	1,	0.000!	!END!
277	! X =	1668.271,	-1500.445,	1,	0.000!	!END!
278	! X =	1670.802,	-1499.986,	1,	0.000!	!END!
279	! X =	1673.332,	-1499.526,	1,	0.000!	!END!
280	! X =	1675.862,	-1499.065,	1,	0.000!	!END!

281	! X =	1678.392,	-1498.604,	1,	0.000!	!END!
282	! X =	1680.922,	-1498.142,	0,	0.000!	!END!
283	! X =	1683.452,	-1497.679,	0,	0.000!	!END!
284	! X =	1685.982,	-1497.216,	0,	0.000!	!END!
285	! X =	1688.511,	-1496.751,	1,	0.000!	!END!
286	! X =	1691.041,	-1496.287,	0,	0.000!	!END!
287	! X =	1693.570,	-1495.821,	0,	0.000!	!END!
288	! X =	1617.144,	-1506.685,	0,	0.000!	!END!
289	! X =	1619.676,	-1506.240,	0,	0.000!	!END!
290	! X =	1622.208,	-1505.794,	1,	0.000!	!END!
291	! X =	1624.740,	-1505.347,	1,	0.000!	!END!
292	! X =	1627.272,	-1504.900,	1,	0.000!	!END!
293	! X =	1629.803,	-1504.452,	1,	0.000!	!END!
294	! X =	1632.335,	-1504.003,	1,	0.000!	!END!
295	! X =	1634.866,	-1503.554,	1,	0.000!	!END!
296	! X =	1637.398,	-1503.104,	1,	0.000!	!END!
297	! X =	1639.929,	-1502.653,	1,	0.000!	!END!
298	! X =	1642.460,	-1502.202,	0,	0.000!	!END!
299	! X =	1644.991,	-1501.750,	0,	0.000!	!END!
300	! X =	1647.522,	-1501.297,	1,	0.000!	!END!
301	! X =	1650.052,	-1500.843,	1,	0.000!	!END!
302	! X =	1652.583,	-1500.389,	1,	0.000!	!END!
303	! X =	1655.113,	-1499.934,	1,	0.000!	!END!
304	! X =	1657.644,	-1499.478,	1,	0.000!	!END!
305	! X =	1660.174,	-1499.022,	1,	0.000!	!END!
306	! X =	1662.704,	-1498.565,	1,	0.000!	!END!
307	! X =	1665.234,	-1498.107,	1,	0.000!	!END!
308	! X =	1667.764,	-1497.649,	1,	0.000!	!END!
309	! X =	1670.294,	-1497.189,	1,	0.000!	!END!
310	! X =	1672.823,	-1496.730,	1,	0.000!	!END!
311	! X =	1675.353,	-1496.269,	1,	0.000!	!END!
312	! X =	1677.882,	-1495.808,	1,	0.000!	!END!
313	! X =	1680.411,	-1495.346,	0,	0.000!	!END!
314	! X =	1682.940,	-1494.883,	0,	0.000!	!END!
315	! X =	1685.469,	-1494.420,	1,	0.000!	!END!
316	! X =	1687.998,	-1493.956,	1,	0.000!	!END!
317	! X =	1690.527,	-1493.491,	0,	0.000!	!END!
318	! X =	1693.055,	-1493.026,	0,	0.000!	!END!
319	! X =	1616.652,	-1503.886,	0,	0.000!	!END!
320	! X =	1619.183,	-1503.441,	0,	0.000!	!END!
321	! X =	1621.715,	-1502.995,	1,	0.000!	!END!
322	! X =	1624.246,	-1502.549,	1,	0.000!	!END!
323	! X =	1626.777,	-1502.102,	1,	0.000!	!END!
324	! X =	1629.308,	-1501.654,	1,	0.000!	!END!
325	! X =	1631.838,	-1501.205,	0,	0.000!	!END!
326	! X =	1634.369,	-1500.756,	1,	0.000!	!END!
327	! X =	1636.900,	-1500.306,	1,	0.000!	!END!
328	! X =	1639.430,	-1499.855,	0,	0.000!	!END!
329	! X =	1641.960,	-1499.404,	0,	0.000!	!END!
330	! X =	1644.491,	-1498.952,	0,	0.000!	!END!
331	! X =	1647.021,	-1498.499,	1,	0.000!	!END!
332	! X =	1649.551,	-1498.046,	1,	0.000!	!END!
333	! X =	1652.080,	-1497.592,	1,	0.000!	!END!
334	! X =	1654.610,	-1497.137,	1,	0.000!	!END!
335	! X =	1657.140,	-1496.681,	1,	0.000!	!END!
336	! X =	1659.669,	-1496.225,	1,	0.000!	!END!
337	! X =	1662.199,	-1495.768,	1,	0.000!	!END!
338	! X =	1664.728,	-1495.310,	1,	0.000!	!END!
339	! X =	1667.257,	-1494.852,	1,	0.000!	!END!
340	! X =	1669.786,	-1494.393,	1,	0.000!	!END!
341	! X =	1672.315,	-1493.933,	1,	0.000!	!END!
342	! X =	1674.843,	-1493.473,	1,	0.000!	!END!
343	! X =	1677.372,	-1493.012,	1,	0.000!	!END!
344	! X =	1679.900,	-1492.550,	1,	0.000!	!END!
345	! X =	1682.428,	-1492.088,	1,	0.000!	!END!
346	! X =	1684.957,	-1491.624,	1,	0.000!	!END!
347	! X =	1687.485,	-1491.161,	1,	0.000!	!END!
348	! X =	1690.013,	-1490.696,	1,	0.000!	!END!
349	! X =	1692.540,	-1490.231,	1,	0.000!	!END!
350	! X =	1618.691,	-1500.642,	0,	0.000!	!END!
351	! X =	1621.221,	-1500.197,	1,	0.000!	!END!
352	! X =	1623.752,	-1499.750,	1,	0.000!	!END!
353	! X =	1626.282,	-1499.303,	1,	0.000!	!END!
354	! X =	1628.812,	-1498.856,	1,	0.000!	!END!
355	! X =	1631.342,	-1498.407,	0,	0.000!	!END!

356	! X =	1633.872,	-1497.958,	0,	0.000!	!END!
357	! X =	1636.402,	-1497.508,	1,	0.000!	!END!
358	! X =	1638.932,	-1497.058,	1,	0.000!	!END!
359	! X =	1641.461,	-1496.606,	0,	0.000!	!END!
360	! X =	1643.990,	-1496.155,	1,	0.000!	!END!
361	! X =	1646.520,	-1495.702,	1,	0.000!	!END!
362	! X =	1649.049,	-1495.249,	1,	0.000!	!END!
363	! X =	1651.578,	-1494.795,	1,	0.000!	!END!
364	! X =	1654.107,	-1494.340,	1,	0.000!	!END!
365	! X =	1656.636,	-1493.885,	1,	0.000!	!END!
366	! X =	1659.164,	-1493.428,	1,	0.000!	!END!
367	! X =	1661.693,	-1492.972,	1,	0.000!	!END!
368	! X =	1664.221,	-1492.514,	1,	0.000!	!END!
369	! X =	1666.750,	-1492.056,	1,	0.000!	!END!
370	! X =	1669.278,	-1491.597,	1,	0.000!	!END!
371	! X =	1671.806,	-1491.138,	1,	0.000!	!END!
372	! X =	1674.334,	-1490.677,	1,	0.000!	!END!
373	! X =	1676.862,	-1490.216,	1,	0.000!	!END!
374	! X =	1679.389,	-1489.755,	1,	0.000!	!END!
375	! X =	1681.917,	-1489.292,	1,	0.000!	!END!
376	! X =	1684.444,	-1488.829,	1,	0.000!	!END!
377	! X =	1686.971,	-1488.366,	1,	0.000!	!END!
378	! X =	1689.499,	-1487.901,	1,	0.000!	!END!
379	! X =	1692.026,	-1487.436,	1,	0.000!	!END!
380	! X =	1618.198,	-1497.844,	0,	0.000!	!END!
381	! X =	1620.728,	-1497.398,	1,	0.000!	!END!
382	! X =	1623.258,	-1496.952,	1,	0.000!	!END!
383	! X =	1625.787,	-1496.505,	1,	0.000!	!END!
384	! X =	1628.317,	-1496.058,	1,	0.000!	!END!
385	! X =	1630.846,	-1495.609,	1,	0.000!	!END!
386	! X =	1633.375,	-1495.160,	0,	0.000!	!END!
387	! X =	1635.904,	-1494.711,	0,	0.000!	!END!
388	! X =	1638.433,	-1494.260,	0,	0.000!	!END!
389	! X =	1640.962,	-1493.809,	1,	0.000!	!END!
390	! X =	1643.490,	-1493.357,	1,	0.000!	!END!
391	! X =	1646.019,	-1492.905,	1,	0.000!	!END!
392	! X =	1648.547,	-1492.452,	1,	0.000!	!END!
393	! X =	1651.076,	-1491.998,	1,	0.000!	!END!
394	! X =	1653.604,	-1491.543,	1,	0.000!	!END!
395	! X =	1656.132,	-1491.088,	1,	0.000!	!END!
396	! X =	1658.660,	-1490.632,	1,	0.000!	!END!
397	! X =	1661.187,	-1490.176,	1,	0.000!	!END!
398	! X =	1663.715,	-1489.718,	1,	0.000!	!END!
399	! X =	1666.243,	-1489.260,	1,	0.000!	!END!
400	! X =	1668.770,	-1488.801,	1,	0.000!	!END!
401	! X =	1671.297,	-1488.342,	1,	0.000!	!END!
402	! X =	1673.824,	-1487.882,	1,	0.000!	!END!
403	! X =	1676.351,	-1487.421,	1,	0.000!	!END!
404	! X =	1617.706,	-1495.046,	0,	0.000!	!END!
405	! X =	1620.235,	-1494.600,	1,	0.000!	!END!
406	! X =	1622.764,	-1494.154,	1,	0.000!	!END!
407	! X =	1625.293,	-1493.707,	1,	0.000!	!END!
408	! X =	1627.821,	-1493.260,	0,	0.000!	!END!
409	! X =	1630.350,	-1492.812,	1,	0.000!	!END!
410	! X =	1632.878,	-1492.363,	0,	0.000!	!END!
411	! X =	1635.406,	-1491.913,	1,	0.000!	!END!
412	! X =	1637.934,	-1491.463,	1,	0.000!	!END!
413	! X =	1640.462,	-1491.012,	1,	0.000!	!END!
414	! X =	1642.990,	-1490.561,	1,	0.000!	!END!
415	! X =	1645.518,	-1490.108,	1,	0.000!	!END!
416	! X =	1648.046,	-1489.655,	1,	0.000!	!END!
417	! X =	1650.573,	-1489.202,	1,	0.000!	!END!
418	! X =	1653.101,	-1488.747,	1,	0.000!	!END!
419	! X =	1655.628,	-1488.292,	1,	0.000!	!END!
420	! X =	1658.155,	-1487.836,	1,	0.000!	!END!
421	! X =	1660.682,	-1487.380,	1,	0.000!	!END!
422	! X =	1663.209,	-1486.922,	1,	0.000!	!END!
423	! X =	1665.736,	-1486.465,	1,	0.000!	!END!
424	! X =	1668.262,	-1486.006,	1,	0.000!	!END!
425	! X =	1670.789,	-1485.547,	1,	0.000!	!END!
426	! X =	1673.315,	-1485.087,	1,	0.000!	!END!
427	! X =	1675.841,	-1484.626,	1,	0.000!	!END!
428	! X =	1617.214,	-1492.248,	0,	0.000!	!END!
429	! X =	1619.742,	-1491.803,	0,	0.000!	!END!
430	! X =	1622.270,	-1491.357,	0,	0.000!	!END!

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431 ! X =    1624.798,  -1490.910,     1,     0.000!   !END!
432 ! X =    1627.326,  -1490.463,     1,     0.000!   !END!
433 ! X =    1629.853,  -1490.015,     1,     0.000!   !END!
434 ! X =    1632.381,  -1489.566,     1,     0.000!   !END!
435 ! X =    1634.909,  -1489.116,     1,     0.000!   !END!
436 ! X =    1637.436,  -1488.666,     1,     0.000!   !END!
437 ! X =    1639.963,  -1488.216,     1,     0.000!   !END!
438 ! X =    1642.490,  -1487.764,     1,     0.000!   !END!
439 ! X =    1645.017,  -1487.312,     1,     0.000!   !END!
440 ! X =    1647.544,  -1486.859,     1,     0.000!   !END!
441 ! X =    1650.071,  -1486.405,     1,     0.000!   !END!
442 ! X =    1652.597,  -1485.951,     1,     0.000!   !END!
443 ! X =    1655.124,  -1485.496,     1,     0.000!   !END!
444 ! X =    1657.650,  -1485.040,     1,     0.000!   !END!
445 ! X =    1660.177,  -1484.584,     1,     0.000!   !END!
446 ! X =    1662.703,  -1484.127,     1,     0.000!   !END!
447 ! X =    1665.229,  -1483.669,     1,     0.000!   !END!
448 ! X =    1667.755,  -1483.211,     1,     0.000!   !END!
449 ! X =    1670.280,  -1482.752,     1,     0.000!   !END!
450 ! X =    1672.806,  -1482.292,     1,     0.000!   !END!
451 ! X =    1675.331,  -1481.831,     1,     0.000!   !END!
452 ! X =    1616.721,  -1489.450,     0,     0.000!   !END!
453 ! X =    1619.249,  -1489.005,     0,     0.000!   !END!
454 ! X =    1621.776,  -1488.559,     0,     0.000!   !END!
455 ! X =    1624.303,  -1488.113,     1,     0.000!   !END!
456 ! X =    1626.830,  -1487.666,     1,     0.000!   !END!
457 ! X =    1629.357,  -1487.218,     1,     0.000!   !END!
458 ! X =    1631.884,  -1486.769,     1,     0.000!   !END!
459 ! X =    1634.411,  -1486.320,     1,     0.000!   !END!
460 ! X =    1636.937,  -1485.870,     1,     0.000!   !END!
461 ! X =    1639.464,  -1485.419,     1,     0.000!   !END!
462 ! X =    1641.990,  -1484.968,     1,     0.000!   !END!
463 ! X =    1644.516,  -1484.516,     1,     0.000!   !END!
464 ! X =    1647.043,  -1484.063,     1,     0.000!   !END!
465 ! X =    1649.569,  -1483.610,     1,     0.000!   !END!
466 ! X =    1652.094,  -1483.155,     1,     0.000!   !END!
467 ! X =    1654.620,  -1482.701,     1,     0.000!   !END!
468 ! X =    1657.146,  -1482.245,     1,     0.000!   !END!
469 ! X =    1659.671,  -1481.789,     1,     0.000!   !END!
470 ! X =    1662.197,  -1481.332,     1,     0.000!   !END!
471 ! X =    1664.722,  -1480.874,     1,     0.000!   !END!
472 ! X =    1667.247,  -1480.416,     1,     0.000!   !END!
473 ! X =    1669.772,  -1479.957,     1,     0.000!   !END!
474 ! X =    1672.297,  -1479.497,     1,     0.000!   !END!
475 ! X =    1674.821,  -1479.037,     1,     0.000!   !END!
476 ! X =    1616.229,  -1486.653,     0,     0.000!   !END!
477 ! X =    1618.756,  -1486.208,     0,     0.000!   !END!
478 ! X =    1621.282,  -1485.762,     1,     0.000!   !END!
479 ! X =    1623.809,  -1485.316,     1,     0.000!   !END!
480 ! X =    1626.335,  -1484.869,     1,     0.000!   !END!
481 ! X =    1628.861,  -1484.421,     1,     0.000!   !END!
482 ! X =    1631.387,  -1483.973,     1,     0.000!   !END!
483 ! X =    1633.913,  -1483.523,     1,     0.000!   !END!
484 ! X =    1636.439,  -1483.074,     1,     0.000!   !END!
485 ! X =    1638.965,  -1482.623,     1,     0.000!   !END!
486 ! X =    1641.490,  -1482.172,     1,     0.000!   !END!
487 ! X =    1644.016,  -1481.720,     1,     0.000!   !END!
488 ! X =    1646.541,  -1481.267,     1,     0.000!   !END!
489 ! X =    1649.066,  -1480.814,     1,     0.000!   !END!
490 ! X =    1651.591,  -1480.360,     1,     0.000!   !END!
491 ! X =    1654.116,  -1479.905,     1,     0.000!   !END!
492 ! X =    1656.641,  -1479.450,     1,     0.000!   !END!
493 ! X =    1659.166,  -1478.994,     1,     0.000!   !END!
494 ! X =    1661.690,  -1478.537,     1,     0.000!   !END!
495 ! X =    1664.215,  -1478.080,     1,     0.000!   !END!
496 ! X =    1666.739,  -1477.621,     1,     0.000!   !END!
497 ! X =    1669.263,  -1477.162,     1,     0.000!   !END!
498 ! X =    1671.787,  -1476.703,     1,     0.000!   !END!
499 ! X =    1674.311,  -1476.243,     1,     0.000!   !END!
500 ! X =    1615.737,  -1483.856,     0,     0.000!   !END!
501 ! X =    1618.263,  -1483.411,     1,     0.000!   !END!
502 ! X =    1620.789,  -1482.965,     1,     0.000!   !END!
503 ! X =    1623.314,  -1482.519,     1,     0.000!   !END!
504 ! X =    1625.840,  -1482.072,     1,     0.000!   !END!
505 ! X =    1628.365,  -1481.625,     1,     0.000!   !END!
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506	! X =	1630.890,	-1481.176,	1,	0.000!	!END!
507	! X =	1633.416,	-1480.727,	1,	0.000!	!END!
508	! X =	1635.941,	-1480.278,	1,	0.000!	!END!
509	! X =	1638.466,	-1479.827,	1,	0.000!	!END!
510	! X =	1640.990,	-1479.376,	1,	0.000!	!END!
511	! X =	1643.515,	-1478.924,	1,	0.000!	!END!
512	! X =	1646.040,	-1478.472,	1,	0.000!	!END!
513	! X =	1648.564,	-1478.019,	1,	0.000!	!END!
514	! X =	1651.088,	-1477.565,	1,	0.000!	!END!
515	! X =	1653.613,	-1477.110,	1,	0.000!	!END!
516	! X =	1656.137,	-1476.655,	1,	0.000!	!END!
517	! X =	1658.661,	-1476.199,	1,	0.000!	!END!
518	! X =	1661.184,	-1475.742,	1,	0.000!	!END!
519	! X =	1663.708,	-1475.285,	1,	0.000!	!END!
520	! X =	1666.232,	-1474.827,	1,	0.000!	!END!
521	! X =	1668.755,	-1474.368,	1,	0.000!	!END!
522	! X =	1671.278,	-1473.909,	1,	0.000!	!END!
523	! X =	1673.802,	-1473.449,	1,	0.000!	!END!
524	! X =	1612.719,	-1481.503,	0,	0.000!	!END!
525	! X =	1615.245,	-1481.059,	0,	0.000!	!END!
526	! X =	1617.770,	-1480.614,	1,	0.000!	!END!
527	! X =	1620.295,	-1480.169,	1,	0.000!	!END!
528	! X =	1622.820,	-1479.723,	1,	0.000!	!END!
529	! X =	1625.345,	-1479.276,	1,	0.000!	!END!
530	! X =	1627.869,	-1478.828,	1,	0.000!	!END!
531	! X =	1630.394,	-1478.380,	1,	0.000!	!END!
532	! X =	1632.918,	-1477.931,	1,	0.000!	!END!
533	! X =	1635.442,	-1477.482,	1,	0.000!	!END!
534	! X =	1637.967,	-1477.032,	1,	0.000!	!END!
535	! X =	1640.491,	-1476.581,	1,	0.000!	!END!
536	! X =	1643.015,	-1476.129,	1,	0.000!	!END!
537	! X =	1645.538,	-1475.677,	1,	0.000!	!END!
538	! X =	1648.062,	-1475.224,	1,	0.000!	!END!
539	! X =	1650.586,	-1474.770,	1,	0.000!	!END!
540	! X =	1653.109,	-1474.315,	1,	0.000!	!END!
541	! X =	1655.632,	-1473.860,	1,	0.000!	!END!
542	! X =	1658.155,	-1473.405,	1,	0.000!	!END!
543	! X =	1660.678,	-1472.948,	1,	0.000!	!END!
544	! X =	1663.201,	-1472.491,	1,	0.000!	!END!
545	! X =	1665.724,	-1472.033,	1,	0.000!	!END!
546	! X =	1668.247,	-1471.574,	1,	0.000!	!END!
547	! X =	1670.769,	-1471.115,	1,	0.000!	!END!
548	! X =	1673.292,	-1470.655,	1,	0.000!	!END!
549	! X =	1612.228,	-1478.706,	0,	0.000!	!END!
550	! X =	1614.753,	-1478.262,	1,	0.000!	!END!
551	! X =	1617.277,	-1477.818,	1,	0.000!	!END!
552	! X =	1619.801,	-1477.372,	1,	0.000!	!END!
553	! X =	1622.325,	-1476.927,	1,	0.000!	!END!
554	! X =	1624.849,	-1476.480,	1,	0.000!	!END!
555	! X =	1627.373,	-1476.033,	1,	0.000!	!END!
556	! X =	1629.897,	-1475.585,	1,	0.000!	!END!
557	! X =	1632.421,	-1475.136,	1,	0.000!	!END!
558	! X =	1634.944,	-1474.686,	1,	0.000!	!END!
559	! X =	1637.468,	-1474.236,	1,	0.000!	!END!
560	! X =	1639.991,	-1473.785,	1,	0.000!	!END!
561	! X =	1642.514,	-1473.334,	1,	0.000!	!END!
562	! X =	1645.037,	-1472.882,	1,	0.000!	!END!
563	! X =	1647.560,	-1472.429,	1,	0.000!	!END!
564	! X =	1650.083,	-1471.975,	1,	0.000!	!END!
565	! X =	1652.605,	-1471.521,	1,	0.000!	!END!
566	! X =	1655.128,	-1471.066,	1,	0.000!	!END!
567	! X =	1657.650,	-1470.610,	1,	0.000!	!END!
568	! X =	1660.172,	-1470.154,	1,	0.000!	!END!
569	! X =	1662.695,	-1469.697,	1,	0.000!	!END!
570	! X =	1665.217,	-1469.239,	1,	0.000!	!END!
571	! X =	1667.739,	-1468.781,	1,	0.000!	!END!
572	! X =	1670.260,	-1468.322,	1,	0.000!	!END!
573	! X =	1672.782,	-1467.862,	1,	0.000!	!END!
574	! X =	1609.213,	-1476.353,	0,	0.000!	!END!
575	! X =	1611.737,	-1475.910,	1,	0.000!	!END!
576	! X =	1614.261,	-1475.466,	1,	0.000!	!END!
577	! X =	1616.784,	-1475.022,	1,	0.000!	!END!
578	! X =	1619.308,	-1474.576,	1,	0.000!	!END!
579	! X =	1621.831,	-1474.131,	1,	0.000!	!END!
580	! X =	1624.354,	-1473.684,	1,	0.000!	!END!

581	! X =	1626.877,	-1473.237,	1,	0.000!	!END!
582	! X =	1629.400,	-1472.789,	1,	0.000!	!END!
583	! X =	1631.923,	-1472.340,	1,	0.000!	!END!
584	! X =	1634.446,	-1471.891,	1,	0.000!	!END!
585	! X =	1636.969,	-1471.441,	1,	0.000!	!END!
586	! X =	1639.491,	-1470.991,	1,	0.000!	!END!
587	! X =	1642.013,	-1470.539,	1,	0.000!	!END!
588	! X =	1644.536,	-1470.087,	1,	0.000!	!END!
589	! X =	1647.058,	-1469.634,	1,	0.000!	!END!
590	! X =	1649.580,	-1469.181,	1,	0.000!	!END!
591	! X =	1652.102,	-1468.727,	1,	0.000!	!END!
592	! X =	1654.623,	-1468.272,	1,	0.000!	!END!
593	! X =	1657.145,	-1467.816,	1,	0.000!	!END!
594	! X =	1659.667,	-1467.360,	1,	0.000!	!END!
595	! X =	1662.188,	-1466.903,	1,	0.000!	!END!
596	! X =	1664.709,	-1466.446,	1,	0.000!	!END!
597	! X =	1667.230,	-1465.987,	1,	0.000!	!END!
598	! X =	1669.751,	-1465.528,	1,	0.000!	!END!
599	! X =	1672.272,	-1465.069,	1,	0.000!	!END!
600	! X =	1674.793,	-1464.608,	1,	0.000!	!END!
601	! X =	1608.723,	-1473.557,	0,	0.000!	!END!
602	! X =	1611.246,	-1473.114,	1,	0.000!	!END!
603	! X =	1613.769,	-1472.670,	1,	0.000!	!END!
604	! X =	1616.291,	-1472.226,	1,	0.000!	!END!
605	! X =	1618.814,	-1471.781,	1,	0.000!	!END!
606	! X =	1621.337,	-1471.335,	1,	0.000!	!END!
607	! X =	1623.859,	-1470.889,	1,	0.000!	!END!
608	! X =	1626.382,	-1470.442,	1,	0.000!	!END!
609	! X =	1628.904,	-1469.994,	1,	0.000!	!END!
610	! X =	1631.426,	-1469.545,	1,	0.000!	!END!
611	! X =	1633.948,	-1469.096,	1,	0.000!	!END!
612	! X =	1636.470,	-1468.646,	1,	0.000!	!END!
613	! X =	1638.991,	-1468.196,	1,	0.000!	!END!
614	! X =	1641.513,	-1467.745,	1,	0.000!	!END!
615	! X =	1644.034,	-1467.293,	1,	0.000!	!END!
616	! X =	1646.556,	-1466.840,	1,	0.000!	!END!
617	! X =	1649.077,	-1466.387,	1,	0.000!	!END!
618	! X =	1651.598,	-1465.933,	1,	0.000!	!END!
619	! X =	1654.119,	-1465.478,	1,	0.000!	!END!
620	! X =	1656.640,	-1465.023,	1,	0.000!	!END!
621	! X =	1659.161,	-1464.567,	1,	0.000!	!END!
622	! X =	1661.681,	-1464.110,	1,	0.000!	!END!
623	! X =	1664.202,	-1463.652,	1,	0.000!	!END!
624	! X =	1666.722,	-1463.194,	1,	0.000!	!END!
625	! X =	1669.242,	-1462.735,	1,	0.000!	!END!
626	! X =	1671.763,	-1462.276,	1,	0.000!	!END!
627	! X =	1674.282,	-1461.816,	1,	0.000!	!END!
628	! X =	1605.710,	-1471.203,	0,	0.000!	!END!
629	! X =	1608.232,	-1470.761,	0,	0.000!	!END!
630	! X =	1610.754,	-1470.318,	0,	0.000!	!END!
631	! X =	1613.277,	-1469.874,	1,	0.000!	!END!
632	! X =	1615.799,	-1469.430,	1,	0.000!	!END!
633	! X =	1618.321,	-1468.985,	1,	0.000!	!END!
634	! X =	1620.842,	-1468.540,	1,	0.000!	!END!
635	! X =	1623.364,	-1468.093,	0,	0.000!	!END!
636	! X =	1625.886,	-1467.647,	1,	0.000!	!END!
637	! X =	1628.407,	-1467.199,	1,	0.000!	!END!
638	! X =	1630.928,	-1466.751,	1,	0.000!	!END!
639	! X =	1633.450,	-1466.302,	1,	0.000!	!END!
640	! X =	1635.971,	-1465.852,	1,	0.000!	!END!
641	! X =	1638.492,	-1465.402,	1,	0.000!	!END!
642	! X =	1641.013,	-1464.950,	1,	0.000!	!END!
643	! X =	1643.533,	-1464.499,	1,	0.000!	!END!
644	! X =	1646.054,	-1464.046,	1,	0.000!	!END!
645	! X =	1648.574,	-1463.593,	1,	0.000!	!END!
646	! X =	1651.095,	-1463.139,	1,	0.000!	!END!
647	! X =	1653.615,	-1462.685,	1,	0.000!	!END!
648	! X =	1656.135,	-1462.229,	1,	0.000!	!END!
649	! X =	1658.655,	-1461.773,	1,	0.000!	!END!
650	! X =	1661.175,	-1461.317,	1,	0.000!	!END!
651	! X =	1663.695,	-1460.859,	1,	0.000!	!END!
652	! X =	1666.214,	-1460.401,	1,	0.000!	!END!
653	! X =	1668.734,	-1459.943,	1,	0.000!	!END!
654	! X =	1671.253,	-1459.483,	1,	0.000!	!END!
655	! X =	1673.772,	-1459.023,	1,	0.000!	!END!

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656 ! X =  1602.698,  -1468.848,  0,  0.000!  !END!
657 ! X =  1605.220,  -1468.407,  0,  0.000!  !END!
658 ! X =  1607.742,  -1467.965,  1,  0.000!  !END!
659 ! X =  1610.263,  -1467.522,  1,  0.000!  !END!
660 ! X =  1612.785,  -1467.079,  1,  0.000!  !END!
661 ! X =  1615.306,  -1466.635,  1,  0.000!  !END!
662 ! X =  1617.827,  -1466.190,  0,  0.000!  !END!
663 ! X =  1620.348,  -1465.745,  1,  0.000!  !END!
664 ! X =  1622.869,  -1465.299,  1,  0.000!  !END!
665 ! X =  1625.390,  -1464.852,  1,  0.000!  !END!
666 ! X =  1627.911,  -1464.404,  1,  0.000!  !END!
667 ! X =  1630.431,  -1463.956,  1,  0.000!  !END!
668 ! X =  1632.952,  -1463.507,  1,  0.000!  !END!
669 ! X =  1635.472,  -1463.058,  1,  0.000!  !END!
670 ! X =  1637.992,  -1462.607,  1,  0.000!  !END!
671 ! X =  1640.512,  -1462.156,  1,  0.000!  !END!
672 ! X =  1643.032,  -1461.705,  1,  0.000!  !END!
673 ! X =  1645.552,  -1461.252,  1,  0.000!  !END!
674 ! X =  1648.072,  -1460.799,  1,  0.000!  !END!
675 ! X =  1650.591,  -1460.346,  1,  0.000!  !END!
676 ! X =  1653.111,  -1459.891,  1,  0.000!  !END!
677 ! X =  1655.630,  -1459.436,  1,  0.000!  !END!
678 ! X =  1658.149,  -1458.980,  1,  0.000!  !END!
679 ! X =  1660.668,  -1458.524,  1,  0.000!  !END!
680 ! X =  1663.187,  -1458.067,  1,  0.000!  !END!
681 ! X =  1665.706,  -1457.609,  1,  0.000!  !END!
682 ! X =  1668.225,  -1457.150,  1,  0.000!  !END!
683 ! X =  1670.743,  -1456.691,  1,  0.000!  !END!
684 ! X =  1673.262,  -1456.231,  1,  0.000!  !END!
685 ! X =  1602.209,  -1466.052,  0,  0.000!  !END!
686 ! X =  1604.731,  -1465.611,  0,  0.000!  !END!
687 ! X =  1607.251,  -1465.169,  1,  0.000!  !END!
688 ! X =  1609.772,  -1464.727,  1,  0.000!  !END!
689 ! X =  1612.293,  -1464.284,  1,  0.000!  !END!
690 ! X =  1614.813,  -1463.840,  1,  0.000!  !END!
691 ! X =  1617.334,  -1463.395,  1,  0.000!  !END!
692 ! X =  1619.854,  -1462.950,  1,  0.000!  !END!
693 ! X =  1622.374,  -1462.504,  1,  0.000!  !END!
694 ! X =  1624.894,  -1462.057,  1,  0.000!  !END!
695 ! X =  1627.414,  -1461.610,  1,  0.000!  !END!
696 ! X =  1629.934,  -1461.162,  1,  0.000!  !END!
697 ! X =  1632.454,  -1460.713,  1,  0.000!  !END!
698 ! X =  1634.973,  -1460.264,  1,  0.000!  !END!
699 ! X =  1637.493,  -1459.814,  1,  0.000!  !END!
700 ! X =  1640.012,  -1459.363,  1,  0.000!  !END!
701 ! X =  1642.531,  -1458.911,  1,  0.000!  !END!
702 ! X =  1645.050,  -1458.459,  1,  0.000!  !END!
703 ! X =  1647.569,  -1458.006,  1,  0.000!  !END!
704 ! X =  1650.088,  -1457.553,  1,  0.000!  !END!
705 ! X =  1652.607,  -1457.098,  1,  0.000!  !END!
706 ! X =  1655.125,  -1456.643,  1,  0.000!  !END!
707 ! X =  1657.644,  -1456.188,  1,  0.000!  !END!
708 ! X =  1660.162,  -1455.731,  1,  0.000!  !END!
709 ! X =  1662.680,  -1455.274,  1,  0.000!  !END!
710 ! X =  1665.198,  -1454.816,  1,  0.000!  !END!
711 ! X =  1667.716,  -1454.358,  1,  0.000!  !END!
712 ! X =  1670.234,  -1453.899,  1,  0.000!  !END!
713 ! X =  1672.751,  -1453.439,  1,  0.000!  !END!
714 ! X =  1675.269,  -1452.979,  1,  0.000!  !END!
715 ! X =  1599.200,  -1463.697,  0,  0.000!  !END!
716 ! X =  1601.721,  -1463.257,  0,  0.000!  !END!
717 ! X =  1604.241,  -1462.816,  0,  0.000!  !END!
718 ! X =  1606.761,  -1462.374,  1,  0.000!  !END!
719 ! X =  1609.281,  -1461.932,  1,  0.000!  !END!
720 ! X =  1611.801,  -1461.489,  1,  0.000!  !END!
721 ! X =  1614.321,  -1461.045,  1,  0.000!  !END!
722 ! X =  1616.840,  -1460.601,  1,  0.000!  !END!
723 ! X =  1619.360,  -1460.155,  1,  0.000!  !END!
724 ! X =  1621.879,  -1459.710,  1,  0.000!  !END!
725 ! X =  1644.548,  -1455.666,  1,  0.000!  !END!
726 ! X =  1647.066,  -1455.213,  1,  0.000!  !END!
727 ! X =  1649.585,  -1454.760,  1,  0.000!  !END!
728 ! X =  1652.102,  -1454.306,  1,  0.000!  !END!
729 ! X =  1654.620,  -1453.851,  1,  0.000!  !END!
730 ! X =  1657.138,  -1453.395,  1,  0.000!  !END!
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731	! X =	1659.655,	-1452.939,	1,	0.000!	!END!
732	! X =	1662.173,	-1452.482,	1,	0.000!	!END!
733	! X =	1664.690,	-1452.024,	1,	0.000!	!END!
734	! X =	1667.207,	-1451.566,	1,	0.000!	!END!
735	! X =	1669.724,	-1451.107,	1,	0.000!	!END!
736	! X =	1672.241,	-1450.647,	1,	0.000!	!END!
737	! X =	1596.193,	-1461.341,	0,	0.000!	!END!
738	! X =	1598.712,	-1460.902,	0,	0.000!	!END!
739	! X =	1601.232,	-1460.462,	1,	0.000!	!END!
740	! X =	1603.752,	-1460.021,	1,	0.000!	!END!
741	! X =	1606.271,	-1459.579,	1,	0.000!	!END!
742	! X =	1608.790,	-1459.137,	1,	0.000!	!END!
743	! X =	1611.309,	-1458.694,	1,	0.000!	!END!
744	! X =	1613.828,	-1458.250,	1,	0.000!	!END!
745	! X =	1616.347,	-1457.806,	1,	0.000!	!END!
746	! X =	1618.866,	-1457.361,	1,	0.000!	!END!
747	! X =	1621.384,	-1456.915,	1,	0.000!	!END!
748	! X =	1644.047,	-1452.873,	1,	0.000!	!END!
749	! X =	1646.564,	-1452.420,	1,	0.000!	!END!
750	! X =	1649.081,	-1451.967,	1,	0.000!	!END!
751	! X =	1651.598,	-1451.513,	1,	0.000!	!END!
752	! X =	1654.115,	-1451.058,	1,	0.000!	!END!
753	! X =	1656.632,	-1450.603,	1,	0.000!	!END!
754	! X =	1659.149,	-1450.147,	1,	0.000!	!END!
755	! X =	1661.666,	-1449.690,	1,	0.000!	!END!
756	! X =	1664.182,	-1449.233,	1,	0.000!	!END!
757	! X =	1666.699,	-1448.775,	1,	0.000!	!END!
758	! X =	1669.215,	-1448.316,	1,	0.000!	!END!
759	! X =	1671.731,	-1447.856,	1,	0.000!	!END!
760	! X =	1674.247,	-1447.396,	1,	0.000!	!END!
761	! X =	1676.763,	-1446.935,	1,	0.000!	!END!
762	! X =	1593.187,	-1458.985,	0,	0.000!	!END!
763	! X =	1595.706,	-1458.546,	0,	0.000!	!END!
764	! X =	1598.225,	-1458.107,	0,	0.000!	!END!
765	! X =	1600.743,	-1457.667,	1,	0.000!	!END!
766	! X =	1603.262,	-1457.226,	1,	0.000!	!END!
767	! X =	1605.781,	-1456.785,	1,	0.000!	!END!
768	! X =	1608.299,	-1456.342,	1,	0.000!	!END!
769	! X =	1610.818,	-1455.900,	1,	0.000!	!END!
770	! X =	1613.336,	-1455.456,	1,	0.000!	!END!
771	! X =	1615.854,	-1455.012,	1,	0.000!	!END!
772	! X =	1618.372,	-1454.567,	1,	0.000!	!END!
773	! X =	1643.545,	-1450.080,	1,	0.000!	!END!
774	! X =	1646.061,	-1449.628,	1,	0.000!	!END!
775	! X =	1648.578,	-1449.175,	1,	0.000!	!END!
776	! X =	1651.094,	-1448.721,	1,	0.000!	!END!
777	! X =	1653.611,	-1448.266,	1,	0.000!	!END!
778	! X =	1656.127,	-1447.811,	1,	0.000!	!END!
779	! X =	1658.643,	-1447.355,	1,	0.000!	!END!
780	! X =	1661.159,	-1446.898,	1,	0.000!	!END!
781	! X =	1663.674,	-1446.441,	1,	0.000!	!END!
782	! X =	1666.190,	-1445.983,	1,	0.000!	!END!
783	! X =	1668.705,	-1445.524,	1,	0.000!	!END!
784	! X =	1671.221,	-1445.065,	1,	0.000!	!END!
785	! X =	1673.736,	-1444.605,	1,	0.000!	!END!
786	! X =	1676.251,	-1444.144,	1,	0.000!	!END!
787	! X =	1590.182,	-1456.627,	0,	0.000!	!END!
788	! X =	1592.700,	-1456.190,	0,	0.000!	!END!
789	! X =	1595.219,	-1455.751,	0,	0.000!	!END!
790	! X =	1597.737,	-1455.312,	1,	0.000!	!END!
791	! X =	1600.255,	-1454.872,	1,	0.000!	!END!
792	! X =	1602.773,	-1454.431,	1,	0.000!	!END!
793	! X =	1605.291,	-1453.990,	1,	0.000!	!END!
794	! X =	1607.808,	-1453.548,	1,	0.000!	!END!
795	! X =	1610.326,	-1453.106,	1,	0.000!	!END!
796	! X =	1612.843,	-1452.662,	1,	0.000!	!END!
797	! X =	1615.361,	-1452.218,	1,	0.000!	!END!
798	! X =	1643.043,	-1447.288,	1,	0.000!	!END!
799	! X =	1645.559,	-1446.836,	1,	0.000!	!END!
800	! X =	1648.075,	-1446.383,	1,	0.000!	!END!
801	! X =	1650.590,	-1445.929,	1,	0.000!	!END!
802	! X =	1653.106,	-1445.475,	1,	0.000!	!END!
803	! X =	1655.621,	-1445.019,	1,	0.000!	!END!
804	! X =	1658.136,	-1444.564,	1,	0.000!	!END!
805	! X =	1660.652,	-1444.107,	1,	0.000!	!END!

806	! X =	1663.167,	-1443.650,	1,	0.000!	!END!
807	! X =	1665.681,	-1443.192,	1,	0.000!	!END!
808	! X =	1668.196,	-1442.733,	1,	0.000!	!END!
809	! X =	1670.711,	-1442.274,	1,	0.000!	!END!
810	! X =	1673.225,	-1441.814,	1,	0.000!	!END!
811	! X =	1675.740,	-1441.354,	1,	0.000!	!END!
812	! X =	1587.179,	-1454.269,	0,	0.000!	!END!
813	! X =	1589.696,	-1453.832,	0,	0.000!	!END!
814	! X =	1592.214,	-1453.395,	1,	0.000!	!END!
815	! X =	1594.732,	-1452.956,	1,	0.000!	!END!
816	! X =	1597.249,	-1452.517,	1,	0.000!	!END!
817	! X =	1599.766,	-1452.078,	1,	0.000!	!END!
818	! X =	1602.283,	-1451.637,	1,	0.000!	!END!
819	! X =	1604.800,	-1451.196,	1,	0.000!	!END!
820	! X =	1607.317,	-1450.754,	1,	0.000!	!END!
821	! X =	1609.834,	-1450.312,	1,	0.000!	!END!
822	! X =	1612.351,	-1449.868,	1,	0.000!	!END!
823	! X =	1614.867,	-1449.425,	1,	0.000!	!END!
824	! X =	1642.542,	-1444.496,	1,	0.000!	!END!
825	! X =	1645.057,	-1444.044,	1,	0.000!	!END!
826	! X =	1647.572,	-1443.591,	1,	0.000!	!END!
827	! X =	1650.086,	-1443.137,	1,	0.000!	!END!
828	! X =	1652.601,	-1442.683,	1,	0.000!	!END!
829	! X =	1655.116,	-1442.228,	1,	0.000!	!END!
830	! X =	1657.630,	-1441.772,	1,	0.000!	!END!
831	! X =	1660.145,	-1441.316,	1,	0.000!	!END!
832	! X =	1662.659,	-1440.859,	1,	0.000!	!END!
833	! X =	1665.173,	-1440.401,	1,	0.000!	!END!
834	! X =	1667.687,	-1439.943,	1,	0.000!	!END!
835	! X =	1670.201,	-1439.484,	1,	0.000!	!END!
836	! X =	1672.714,	-1439.024,	1,	0.000!	!END!
837	! X =	1675.228,	-1438.563,	1,	0.000!	!END!
838	! X =	1584.177,	-1451.911,	0,	0.000!	!END!
839	! X =	1586.694,	-1451.475,	0,	0.000!	!END!
840	! X =	1589.211,	-1451.038,	0,	0.000!	!END!
841	! X =	1591.728,	-1450.600,	0,	0.000!	!END!
842	! X =	1594.245,	-1450.162,	1,	0.000!	!END!
843	! X =	1596.761,	-1449.723,	1,	0.000!	!END!
844	! X =	1599.278,	-1449.283,	1,	0.000!	!END!
845	! X =	1601.794,	-1448.843,	1,	0.000!	!END!
846	! X =	1604.310,	-1448.402,	1,	0.000!	!END!
847	! X =	1606.827,	-1447.960,	1,	0.000!	!END!
848	! X =	1609.343,	-1447.518,	1,	0.000!	!END!
849	! X =	1642.040,	-1441.704,	1,	0.000!	!END!
850	! X =	1644.554,	-1441.252,	1,	0.000!	!END!
851	! X =	1647.069,	-1440.799,	1,	0.000!	!END!
852	! X =	1649.583,	-1440.346,	1,	0.000!	!END!
853	! X =	1652.097,	-1439.892,	1,	0.000!	!END!
854	! X =	1654.610,	-1439.437,	1,	0.000!	!END!
855	! X =	1657.124,	-1438.981,	1,	0.000!	!END!
856	! X =	1659.638,	-1438.525,	1,	0.000!	!END!
857	! X =	1662.151,	-1438.068,	1,	0.000!	!END!
858	! X =	1664.664,	-1437.611,	1,	0.000!	!END!
859	! X =	1667.178,	-1437.152,	1,	0.000!	!END!
860	! X =	1669.691,	-1436.693,	1,	0.000!	!END!
861	! X =	1672.204,	-1436.234,	1,	0.000!	!END!
862	! X =	1674.716,	-1435.773,	1,	0.000!	!END!
863	! X =	1581.176,	-1449.551,	0,	0.000!	!END!
864	! X =	1583.693,	-1449.116,	0,	0.000!	!END!
865	! X =	1586.209,	-1448.680,	0,	0.000!	!END!
866	! X =	1588.726,	-1448.243,	0,	0.000!	!END!
867	! X =	1591.242,	-1447.806,	1,	0.000!	!END!
868	! X =	1593.758,	-1447.368,	1,	0.000!	!END!
869	! X =	1596.274,	-1446.929,	1,	0.000!	!END!
870	! X =	1598.789,	-1446.490,	1,	0.000!	!END!
871	! X =	1601.305,	-1446.049,	1,	0.000!	!END!
872	! X =	1603.820,	-1445.609,	1,	0.000!	!END!
873	! X =	1575.662,	-1447.625,	0,	0.000!	!END!
874	! X =	1578.178,	-1447.191,	0,	0.000!	!END!
875	! X =	1580.693,	-1446.757,	0,	0.000!	!END!
876	! X =	1583.209,	-1446.322,	0,	0.000!	!END!
877	! X =	1585.725,	-1445.886,	1,	0.000!	!END!
878	! X =	1588.240,	-1445.449,	0,	0.000!	!END!
879	! X =	1590.756,	-1445.012,	0,	0.000!	!END!
880	! X =	1593.271,	-1444.574,	1,	0.000!	!END!

881	!	X =	1595.786,	-1444.135,	1,	0.000!	!END!
882	!	X =	1598.301,	-1443.696,	1,	0.000!	!END!
883	!	X =	1575.180,	-1444.831,	0,	0.000!	!END!
884	!	X =	1577.695,	-1444.397,	0,	0.000!	!END!
885	!	X =	1580.210,	-1443.963,	0,	0.000!	!END!
886	!	X =	1582.725,	-1443.527,	1,	0.000!	!END!
887	!	X =	1585.240,	-1443.092,	1,	0.000!	!END!
888	!	X =	1587.755,	-1442.655,	0,	0.000!	!END!
889	!	X =	1590.270,	-1442.218,	1,	0.000!	!END!
890	!	X =	1592.784,	-1441.780,	1,	0.000!	!END!
891	!	X =	1595.298,	-1441.342,	1,	0.000!	!END!
892	!	X =	1597.813,	-1440.903,	1,	0.000!	!END!
893	!	X =	1577.213,	-1441.603,	1,	0.000!	!END!
894	!	X =	1579.728,	-1441.169,	1,	0.000!	!END!
895	!	X =	1582.242,	-1440.734,	1,	0.000!	!END!
896	!	X =	1589.784,	-1439.425,	1,	0.000!	!END!
897	!	X =	1592.297,	-1438.987,	1,	0.000!	!END!
898	!	X =	1594.811,	-1438.549,	1,	0.000!	!END!
899	!	X =	1597.324,	-1438.110,	1,	0.000!	!END!
900	!	X =	1579.245,	-1438.375,	1,	0.000!	!END!
901	!	X =	1581.758,	-1437.940,	1,	0.000!	!END!

a
Data for each receptor are treated as a separate input subgroup and therefore must end with an input group terminator.

b
Receptor height above ground is optional. If no value is entered, the receptor is placed on the ground.

APPENDIX B

SAMPLE POSTUTIL MODEL CONTROL FILE FOR VISIBILITY IMPACTS

```
FPL WCEC UNIT 3 - POSTUTIL VISIBILITY IMPACTS       8/22/07
EVERGLADES NP CLASS I RECEPTORS
4-km FL DOMAIN, 2002

---------------- Run title (3 lines) -------------------------------------------

                  POSTUTIL MODEL CONTROL FILE
                  ---------------------------

-------------------------------------------------------------------------------

INPUT GROUP: 0 -- Input and Output File Names
--------------

-------------
Subgroup (0a)
-------------

Output Files
------------

 File            Default File Name
 ----            -----------------
 List File       POSTUTIL.LST        ! UTLLST =EXAMPLE.LST   !
 Data File       MODEL.DAT           ! UTLDAT =EXAMPLE.CON   !


Input Files
-----------

 A time-varying file of "background" concentrations can be included
 when the ammonia-limiting method (ALM) for setting the HNO3/NO3
 concentration partition is accomplished in 1 step.  This option
 is selected by setting MNITRATE=3 in Input Group 1.
 Species required in the "background" concentration file are:
 SO4, NO3, HNO3 and TNH3 (total NH3).

 File            Default File Name
 ----            -----------------
 BCKG File       BCKGALM.DAT          * BCKGALM =BCKGALM.DAT     *


 A number of CALPUFF data files may be processed in this application.
 The files may represent individual CALPUFF simulations that were made
 for a specific set of species and/or sources.  Specify the total number
 of CALPUFF runs you wish to combine, and provide the filename for each
 in subgroup 0b.

     Number of CALPUFF data files (NFILES)
                                 Default: 1        ! NFILES   = 1   !


 Meteorological data files are needed for the HNO3/NO3 partition option.
 Three types of meteorological data files can be used:
       METFM= 0 - CALMET.DAT
       METFM= 1 - 1-D file with RH, Temp and Rhoair timeseries
       METFM= 2 - 2-D files with either Rh, Temp or Rhoair in each
                  (3 2_D files are needed).
      The default is to use CALMET.DAT files.

                                 Default: 0        ! METFM    = 0   !


 Multiple meteorological data files may be used in sequence to span the
 processing period.  Specify the number of time-period files (NMET) that
 you need to use, and provide a filename for each in subgroup 0b.
 - NMET is 0 if no meteorological files are provided
 - NMET is 1 if METFM=1 (multiple file feature is not available)
 - NMET is 1 or more if METFM=0 or 2 (multiple CALMET files or 2DMET files)

     Number of meteorological data file time-periods (NMET)
                                 Default: 0        ! NMET     = 0   !
```

```
All filenames will be converted to lower case if LCFILES = T
Otherwise, if LCFILES = F, filenames will be converted to UPPER CASE

    Convert filenames to lower case?  Default: T     ! LCFILES = T !
        T = lower case
        F = UPPER CASE

!END!

-----------------------------------------------------------
 NOTE: file/path names can be up to 70 characters in length
-----------------------------------------------------------

-------------
Subgroup (0b)
-------------

NMET CALMET Data Files (METFM=0):

Input File       Default File Name
----------       -----------------
   1             MET.DAT              * UTLMET =CALMET.DAT  * *END*


NMET 1-D Data Files (METFM=1):

Input File       Default File Name
----------       -----------------
   1             MET_1D.DAT           * MET1D   = MET_1D.DAT * *END*


NMET 2-D Data Files of Each Type (METFM=2):

Input File       Default File Name
----------       -----------------
   1             RHUMD.DAT            * M2DRHU  = RELHUM.DAT * *END*
   1             TEMP.DAT             * M2DTMP  = TEMP.DAT   * *END*
   1             RHOAIR.DAT           * M2DRHO  = RHOAIR.DAT * *END*


NFILES CALPUFF Data Files:

Input File       Default File Name
----------       -----------------
   1             CALPUFF.DAT          ! MODDAT =..\PFIC19BV.CON  ! !END!


-------------
Note:  provide NMET lines of the form   * UTLMET = name * *END*

                                    or   * MET1D  = name * *END*

                                    or   * M2DRHU = name * *END*
                                 (and)   * M2DTMP = name * *END*
                                 (and)   * M2DRHO = name * *END*

       and NFILES lines of the form     * MODDAT = name * *END*

       where the * should be replaced with an exclamation point,
       the special delimiter character.


-----------------------------------------------------------------------------

 INPUT GROUP: 1 -- General run control parameters
 --------------

     Starting date:    Year  (ISYR) --    No default   ! ISYR  =  2002 !
                       Month (ISMO) --    No default   ! ISMO  = 1    !
                       Day   (ISDY) --    No default   ! ISDY  = 1    !
                       Hour  (ISHR) --    No default   ! ISHR  = 1    !

     Number of periods to process
                                 (NPER) -- No default   ! NPER  = 8760 !
```

```
    Number of species to process from CALPUFF runs
                           (NSPECINP) -- No default   ! NSPECINP = 6 !

    Number of species to write to output file
                           (NSPECOUT) -- No default   ! NSPECOUT = 9 !

    Number of species to compute from those modeled
    (must be no greater than NSPECOUT)
                           (NSPECCMP) -- No default   ! NSPECCMP = 4 !


When multiple files are used, a species name may appear in more than
one file.  Data for this species will be summed (appropriate if the
CALPUFF runs use different source groups).  If this summing is not
appropriate, remove duplicate species from the file(s).

    Stop run if duplicate species names
    are found? (MDUPLCT)            Default: 0       ! MDUPLCT  =  0  !
       0 = no  (i.e., duplicate species are summed)
       1 = yes (i.e., run is halted)

Data for each species in a CALPUFF data file may also be scaled as
they are read.  This can be done to alter the emission rate of all
sources that were modeled in a particular CALPUFF application.
The scaling factor for each species is entered in Subgroup (2d), for
each file for which scaling is requested.

    Number of CALPUFF data files that will be scaled
    (must be no greater than NFILES)
    (NSCALED)                       Default: 0       ! NSCALED = 1 !


Ammonia-Limiting Method Option to recompute the HNO3/NO3 concentration
partition prior to performing other actions is controlled by MNITRATE.
This option will NOT alter any deposition fluxes contained in the CALPUFF
file(s).  Three partition selections are provided.  The first two are
typically used in sequence (POSTUTIL is run more than once).  The first
selection (MNITRATE=1) computes the partition for the TOTAL (all sources)
concentration fields (SO4, NO3, HNO3; NH3), and the second (MNITRATE=2)
uses this partition (from the previous application of POSTUTIL) to
compute the partition for individual source groups.  The third selection
(MNITRATE=3) can be used instead in a single POSTUTIL application if a
file of background concentrations is provided (BCKGALM in Input Group 0).

Required information for MNITRATE=1 includes:
         species NO3, HNO3, and SO4
         NH3 concentration(s)
         met. data file for RH and T

Required information for MNITRATE=2 includes:
         species NO3 and HNO3 for a source group
         species NO3ALL and HNO3ALL for all source groups, properly
         partitioned

Required information for MNITRATE=3 includes:
         species NO3, HNO3, and SO4 for a source group
         species NO3, HNO3, SO4 and TNH3 from the background BCKGALM file
         If TNH3 is not in the background BCKGALM file, monthly TNH3
         concentrations are used (BCKTNH3)

    Recompute the HNO3/NO3 partition for concentrations?
    (MNITRATE)                     Default: 0       ! MNITRATE  =  0  !
       0 = no
       1 = yes, for all sources combined
       2 = yes, for a source group
       3 = yes, ALM application in one step


SOURCE OF AMMONIA:

Ammonia may be available as a modeled species in the CALPUFF files,
and it may or may not be appropriate to use it for repartitioning NO3/HNO3
(in option MNITRATE=1 or MNITRATE=3).  Its use is contolled by NH3TYP.
When NH3 is listed as a processed species in Subgroup (2a), as one of
the NSPECINP ASPECI entries, and the right option is chosen for NH3TYP,
```

```
the NH3 modeled values from the CALPUFF concentration files will be used
in the chemical equilibrium calculation.

NH3TYP also controls when monthly background ammonia values are used.  Both
gaseous (NH3) and total (TNH3) ammonia can be provided monthly as
BCKNH3/BCKTNH3.

    What is the input source of Ammonia?
    (NH3TYP)                        No Default       ! NH3TYP = 3  !
       0 = No background will be used.
           ONLY NH3 from the concentration
           files listed in Subgroup (2a) as
           a processed species will be used.
           (Cannot be used with MNITRATE=3)

       1 = NH3 Monthly averaged background (BCKNH3)
           listed below will be added to NH3 from
           concentration files listed in Subgroup (2a)

       2 = NH3 from background concentration file BCKGALM
           will be added to NH3 from concentration files
           listed in Subgroup (2a)
           (ONLY possible for MNITRATE=3)

       3 = NH3 Monthly averaged background (BCKNH3)
           listed below will be used alone.

       4 = NH3 from background concentration file BCKGALM
           will be used alone
           (ONLY possible for MNITRATE=3)

    | NH3TYP | NH3 CONC | NH3 FROM BCKNH3 | NH3 FROM BCKGALM |
    |--------|----------|-----------------|------------------|
    |   0    |    X     |        0        |        0         |
    |--------|----------|-----------------|------------------|
    |   1    |    X     |        X        |        0         |
    |--------|----------|-----------------|------------------|
    |   2    |    X     |        0        |        X         |
    |--------|----------|-----------------|------------------|
    |   3    |    0     |        X        |        0         |
    |--------|----------|-----------------|------------------|
    |   4    |    0     |        0        |        X         |
    |--------|----------|-----------------|------------------|


     Default monthly (12 values) background ammonia concentration (ppb)
     used for HNO3/NO3 partition:

      Gaseous NH3 (BCKNH3)            Default: -999
      ! BCKNH3 = 12*0.5 !

      Total TNH3  (BCKTNH3)           Default: -999
      * BCKTNH3 = 1., 1., 1., 1.1, 1.4, 1.3, 1.3, 1.2, 4*1. *

     If a single value is entered, this is used for all 12 months.
     Month 1 is JANUARY, Month 12 is DECEMBER.

!END!
-------------------------------------------------------------------------------

INPUT GROUP: 2 -- Species Processing Information
--------------

-------------
Subgroup (2a)
-------------

  The following NSPECINP species will be processed:

! ASPECI =          SO2 !         !END!
! ASPECI =          SO4 !         !END!
! ASPECI =          NOX !         !END!
! ASPECI =         HNO3 !         !END!
! ASPECI =          NO3 !         !END!
! ASPECI =         PM10 !         !END!
```

```
-------------
Subgroup (2b)
-------------

  The following NSPECOUT species will be written:

! ASPECO =         SO2 !         !END!
! ASPECO =         SO4 !         !END!
! ASPECO =         NOX !         !END!
! ASPECO =        HNO3 !         !END!
! ASPECO =         NO3 !         !END!
! ASPECO =         SOA !         !END!
! ASPECO =          EC !         !END!
! ASPECO =        SOIL !         !END!
! ASPECO =         PMC !         !END!

-------------
Subgroup (2c)
-------------

  The following NSPECCMP species will be computed by scaling and summing
  one or more of the processed input species.  Identify the name(s) of
  the computed species and provide the scaling factors for each of the
  NSPECINP input species (NSPECCMP groups of NSPECINP+1 lines each):

NOTE: SO4 IS INPUT TO CALPUFF EXPLICITLY

! CSPECCMP =     SOA !
!     SO2  =     0.0 !
!     SO4  =     0.0 !
!     NOX  =     0.0 !
!    HNO3  =     0.0 !
!     NO3  =     0.0 !
!    PM10  =     0.006 !
!END!

! CSPECCMP =      EC !
!     SO2  =     0.0 !
!     SO4  =     0.0 !
!     NOX  =     0.0 !
!    HNO3  =     0.0 !
!     NO3  =     0.0 !
!    PM10  =   0.074 !
!END!

! CSPECCMP =    SOIL !
!     SO2  =     0.0 !
!     SO4  =     0.0 !
!     NOX  =     0.0 !
!    HNO3  =     0.0 !
!     NO3  =     0.0 !
!    PM10  =   0.921 !
!END!

! CSPECCMP =     PMC !
!     SO2  =     0.0 !
!     SO4  =     0.0 !
!     NOX  =     0.0 !
!    HNO3  =     0.0 !
!     NO3  =     0.0 !
!    PM10  =   0.000 !
!END!

-------------
Subgroup (2d)
-------------

  Each species in NSCALED CALPUFF data files may be scaled before being
  processed (e.g., to change the emission rate for all sources modeled
  in the run that produced a data file).  For each file, identify the
  file name and then provide the name(s) of the scaled species and the
  corresponding scaling factors (A,B where x' = Ax+B).
```

```
               A(Default=1.0)        B(Default=0.0)
               --------------        --------------

! MODDAT =..\PFIC19BV.CON  !
!       SO2 =     0.860,               0.0    !
!       SO4 =     0.860,               0.0    !
!       NOX =     0.860,               0.0    !
!      HNO3 =     0.860,               0.0    !
!       NO3 =     0.860,               0.0    !
!      PM10 =     0.860,               0.0    !
!END!
```

APPENDIX C

SAMPLE CALPOST MODEL CONTROL FILE FOR VISIBILITY

```
FPL WCEC UNIT 3 PROJECT - CALPOST FOR VISIBLITY            EPA  8/22/07
METHOD 2, EVERGLADES NP
4-km FL DOMAIN, 2002, ENP RECEPTORS
----------------- Run title (3 lines) ------------------------------------------

                    CALPOST MODEL CONTROL FILE
                    --------------------------

-------------------------------------------------------------------------------

INPUT GROUP: 0 -- Input and Output File Names
--------------

Input Files
-----------

File                         Default File Name
----                         -----------------
Conc/Dep Flux File           MODEL.DAT           ! MODDAT =..\EXAMPLE.CON  !
Relative Humidity File       VISB.DAT            ! VISDAT =..\..\VISB.DAT  !
Background Data File         BACK.DAT            *BACKDAT =   *
Transmissometer or           VSRN.DAT            *VSRDAT =    *
Nephelometer Data File        or
DATSAV Weather Data File      or
Prognostic Weather  File

Output Files
------------

File                         Default File Name
----                         -----------------
List File                    CALPOST.LST         ! PSTLST =EXAMPLEVIS.LST  !

Pathname for Timeseries Files   (blank)          * TSPATH =    *
(activate with exclamation points only if
providing NON-BLANK character string)

Pathname for Plot Files   (blank)                * PLPATH =    *
(activate with exclamation points only if
 providing NON-BLANK character string)

User Character String (U) to augment default filenames
(activate with exclamation points only if
 providing NON-BLANK character string)

Timeseries          TSERIES_ASPEC_ttHR_CONC_TSUNAM.DAT
Peak Value          PEAKVAL_ASPEC_ttHR_CONC_TSUNAM.DAT

                                                 * TSUNAM =    *

Top Nth Rank Plot   RANK(ALL)_ASPEC_ttHR_CONC_TUNAM.DAT
                or  RANK(ii)_ASPEC_ttHR_CONC_TUNAM.GRD

                                                 * TUNAM =    *

Exceedance Plot       EXCEED_ASPEC_ttHR_CONC_XUNAM.DAT
                  or  EXCEED_ASPEC_ttHR_CONC_XUNAM.GRD

                                                 * XUNAM =    *

Echo Plot
(Specific Days)
           yyyy_Mmm_Ddd_hh00(UTCszzzz)_L00_ASPEC_ttHR_CONC.DAT
      or   yyyy_Mmm_Ddd_hh00(UTCszzzz)_L00_ASPEC_ttHR_CONC.GRD

Visibility Plot      DAILY_VISIB_VUNAM.DAT    ! VUNAM =VTEST    !
(Daily Peak Summary)

Auxiliary Output Files
----------------------

File                         Default File Name
```

```
----                    ----------------
Visibility Change       DELVIS.DAT          ! DVISDAT = deciview.dat  !

-------------------------------------------------------------------------------
All file names will be converted to lower case if LCFILES = T
Otherwise, if LCFILES = F, file names will be converted to UPPER CASE
         T = lower case              ! LCFILES = T !
         F = UPPER CASE
NOTE: (1) file/path names can be up to 132 characters in length
NOTE: (2) Filenames for ALL PLOT and TIMESERIES FILES are constructed
          using a template that includes a pathname, user-supplied
          character(s), and context-specific strings, where
             ASPEC = Species Name
              CONC = CONC Or WFLX Or DFLX Or TFLX
                tt = Averaging Period (e.g. 03)
                ii = Rank (e.g. 02)
                hh = Hour(ending) in LST
             szzzz = LST time zone shift (EST is -0500)
              yyyy = Year(LST)
                mm = Month(LST)
                dd = day of month (LST)
          are determined internally based on selections made below.
          If a path or user-supplied character(s) are supplied, each
          must contain at least 1 non-blank character.

!END!
-------------------------------------------------------------------------------

INPUT GROUP: 1 -- General run control parameters
--------------

     Option to run all periods found
     in the met. file(s)  (METRUN)       Default: 0   ! METRUN =   0  !

         METRUN = 0 - Run period explicitly defined below
         METRUN = 1 - Run all periods in CALPUFF data file(s)

     Starting date:    Year  (ISYR) --    No default   ! ISYR  =  2002   !
     (used only if     Month (ISMO) --    No default   ! ISMO  =  1   !
      METRUN = 0)      Day   (ISDY) --    No default   ! ISDY  =  1   !
                       Hour  (ISHR) --    No default   ! ISHR  =  1   !

     Number of hours to process (NHRS) -- No default   ! NHRS  =  8760  !

     Process every hour of data?(NREP) -- Default: 1   ! NREP  =  1  !
      (1 = every hour processed,
       2 = every 2nd hour processed,
       5 = every 5th hour processed, etc.)

 Species & Concentration/Deposition Information
 ----------------------------------------------

      Species to process (ASPEC)       -- No default   ! ASPEC = VISIB !
      (ASPEC = VISIB for visibility processing)

      Layer/deposition code (ILAYER)   -- Default: 1   ! ILAYER = 1 !
        '1'  for CALPUFF concentrations,
        '-1' for dry deposition fluxes,
        '-2' for wet deposition fluxes,
        '-3' for wet+dry deposition fluxes.

      Scaling factors of the form:     -- Defaults:    ! A =  0.0     !
            X(new) = X(old) * A + B         A = 0.0    ! B =  0.0     !
        (NOT applied if A = B = 0.0)        B = 0.0

      Add Hourly Background Concentrations/Fluxes?
                              (LBACK)  -- Default: F   ! LBACK =  F !

 Source information
 ------------------

   Option to process source contributions:
         0 =  Process only total reported contributions
         1 =  Sum all individual source contributions and process
```

```
        2 =  Run in TRACEBACK mode to identify source
             contributions at a SINGLE receptor
                         (MSOURCE) -- Default: 0    ! MSOURCE =  0  !

Receptor information
--------------------

  Gridded receptors processed?    (LG) -- Default: F    ! LG  = F  !
  Discrete receptors processed?   (LD) -- Default: F    ! LD  = T  !
  CTSG Complex terrain receptors processed?
                                 (LCT) -- Default: F    ! LCT = F  !

--Report results by DISCRETE receptor RING?
  (only used when LD = T)      (LDRING) -- Default: F   ! LDRING = F  !

--Select range of DISCRETE receptors (only used when LD = T):

  Select ALL DISCRETE receptors by setting NDRECP flag to -1;
                               OR
  Select SPECIFIC DISCRETE receptors by entering a flag (0,1) for each
     0 = discrete receptor not processed
     1 = discrete receptor processed
  using repeated value notation to select blocks of receptors:
     23*1, 15*0, 12*1
  Flag for all receptors after the last one assigned is set to 0
  (NDRECP) -- Default: -1

  ! NDRECP = -1 !


--Select range of GRIDDED receptors (only used when LG = T):

       X index of LL corner (IBGRID) -- Default: -1     ! IBGRID = -1  !
           (-1 OR 1 <= IBGRID <= NX)

       Y index of LL corner (JBGRID) -- Default: -1     ! JBGRID = -1  !
           (-1 OR 1 <= JBGRID <= NY)

       X index of UR corner (IEGRID) -- Default: -1     ! IEGRID = -1  !
           (-1 OR 1 <= IEGRID <= NX)

       Y index of UR corner (JEGRID) -- Default: -1     ! JEGRID = -1  !
           (-1 OR 1 <= JEGRID <= NY)

  Note: Entire grid is processed if IBGRID=JBGRID=IEGRID=JEGRID=-1


--Specific gridded receptors can also be excluded from CALPOST
  processing by filling a processing grid array with 0s and 1s.  If the
  processing flag for receptor index (i,j) is 1 (ON), that receptor
  will be processed if it lies within the range delineated by IBGRID,
  JBGRID,IEGRID,JEGRID and if LG=T. If it is 0 (OFF), it will not be
  processed in the run.  By default, all array values are set to 1 (ON).

  Number of gridded receptor rows provided in Subgroup (1a) to
  identify specific gridded receptors to process
                        (NGONOFF) -- Default: 0        ! NGONOFF =  0  !

!END!


--------------
Subgroup (1a) -- Specific gridded receptors included/excluded
--------------

    Specific gridded receptors are excluded from CALPOST processing
    by filling a processing grid array with 0s and 1s.  A total of
    NGONOFF lines are read here.  Each line corresponds to one 'row'
    in the sampling grid, starting with the NORTHERNMOST row that
    contains receptors that you wish to exclude, and finishing with
    row 1 to the SOUTH (no intervening rows may be skipped).  Within
    a row, each receptor position is assigned either a 0 or 1,
    starting with the westernmost receptor.
       0 = gridded receptor not processed
       1 = gridded receptor processed
```

```
   Repeated value notation may be used to select blocks of receptors:
      23*1, 15*0, 12*1

   Because all values are initially set to 1, any receptors north of
   the first row entered, or east of the last value provided in a row,
   remain ON.

   (NGXRECP) -- Default: 1


-------------------------------------------------------------------------------

INPUT GROUP: 2 -- Visibility Parameters (ASPEC = VISIB)
--------------

    Identify the Base Time Zone for the CALPUFF simulation
                              (BTZONE) -- No default   ! BTZONE =  5.!

    Particle growth curve f(RH) for hygroscopic species
                              (MFRH) -- Default: 2   ! MFRH   =  2  !

         1 =  IWAQM (1998) f(RH) curve (originally used with MVISBK=1)
         2 =  FLAG (2000) f(RH) tabulation
         3 =  EPA (2003) f(RH) tabulation

    Maximum relative humidity (%) used in particle growth curve
                              (RHMAX) -- Default: 98   ! RHMAX  = 95.0 !

    Modeled species to be included in computing the light extinction
     Include SULFATE?          (LVSO4) -- Default: T   ! LVSO4  = T  !
     Include NITRATE?          (LVNO3) -- Default: T   ! LVNO3  = T  !
     Include ORGANIC CARBON?   (LVOC)  -- Default: T   ! LVOC   = T  !
     Include COARSE PARTICLES? (LVPMC) -- Default: T   ! LVPMC  = T  !
     Include FINE PARTICLES?   (LVPMF) -- Default: T   ! LVPMF  = T  !
     Include ELEMENTAL CARBON? (LVEC)  -- Default: T   ! LVEC   = T  !

    And, when ranking for TOP-N, TOP-50, and Exceedance tables,
     Include BACKGROUND?       (LVBK)  -- Default: T   ! LVBK   = F  !

    Species name used for particulates in MODEL.DAT file
                COARSE    (SPECPMC) -- Default: PMC ! SPECPMC = PMC !
                FINE      (SPECPMF) -- Default: PMF ! SPECPMF = SOIL !

 Extinction Efficiency (1/Mm per ug/m**3)
 ----------------------------------------
    MODELED particulate species:
              PM  COARSE      (EEPMC) -- Default: 0.6 ! EEPMC   = 0.6 !
              PM  FINE        (EEPMF) -- Default: 1.0 ! EEPMF   = 1.0 !
    BACKGROUND particulate species:
              PM  COARSE    (EEPMCBK) -- Default: 0.6 ! EEPMCBK = 0.6 !
    Other species:
             AMMONIUM SULFATE (EESO4) -- Default: 3.0 ! EESO4   = 3.0 !
             AMMONIUM NITRATE (EENO3) -- Default: 3.0 ! EENO3   = 3.0 !
             ORGANIC CARBON   (EEOC)  -- Default: 4.0 ! EEOC    = 4.0 !
             SOIL             (EESOIL)-- Default: 1.0 ! EESOIL  = 1.0 !
             ELEMENTAL CARBON (EEEC)  -- Default: 10. ! EEEC    = 10.0 !

 Background Extinction Computation
 ---------------------------------

    Method used for the 24h-average of percent change of light extinction:
    Hourly ratio of source light extinction / background light extinction
    is averaged?              (LAVER) -- Default: F    ! LAVER = F  !


    Method used for background light extinction
                              (MVISBK) -- Default: 2   ! MVISBK =  2  !

         1 =  Supply single light extinction and hygroscopic fraction
              - Hourly F(RH) adjustment applied to hygroscopic background
                and modeled sulfate and nitrate
         2 =  Compute extinction from speciated PM measurements (A)
              - Hourly F(RH) adjustment applied to observed and modeled sulfate
                and nitrate
```

```
              - F(RH) factor is capped at F(RHMAX)
         3 =  Compute extinction from speciated PM measurements (B)
              - Hourly F(RH) adjustment applied to observed and modeled sulfate
                and nitrate
              - Receptor-hour excluded if RH>RHMAX
              - Receptor-day excluded if fewer than 6 valid receptor-hours
         4 =  Read hourly transmissometer background extinction measurements
              - Hourly F(RH) adjustment applied to modeled sulfate and nitrate
              - Hour excluded if measurement invalid (missing, interference,
                or large RH)
              - Receptor-hour excluded if RH>RHMAX
              - Receptor-day excluded if fewer than 6 valid receptor-hours
         5 =  Read hourly nephelometer background extinction measurements
              - Rayleigh extinction value (BEXTRAY) added to measurement
              - Hourly F(RH) adjustment applied to modeled sulfate and nitrate
              - Hour excluded if measurement invalid (missing, interference,
                or large RH)
              - Receptor-hour excluded if RH>RHMAX
              - Receptor-day excluded if fewer than 6 valid receptor-hours
         6 =  Compute extinction from speciated PM measurements
              - FLAG monthly RH adjustment factor applied to observed and
                modeled sulfate and nitrate
         7 =  Use observed weather or prognostic weather information for
              background extinction during weather events; otherwise, use Method 2
              - Hourly F(RH) adjustment applied to modeled sulfate and nitrate
              - F(RH) factor is capped at F(RHMAX)
              - During observed weather events, compute Bext from visual range
                if using an observed weather data file, or
              - During prognostic weather events, use Bext from the prognostic
                weather file
              - Use Method 2 for hours without a weather event

     Additional inputs used for MVISBK = 1:
     --------------------------------------
      Background light extinction (1/Mm)
                               (BEXTBK) -- No default    ! BEXTBK = 0.0 !
      Percentage of particles affected by relative humidity
                               (RHFRAC) -- No default    ! RHFRAC = 0.0 !

     Additional inputs used for MVISBK = 6:
     --------------------------------------
      Extinction coefficients for hygroscopic species (modeled and
      background) are computed using a monthly RH adjustment factor
      in place of an hourly RH factor (VISB.DAT file is NOT needed).
      Enter the 12 monthly factors here (RHFAC).  Month 1 is January.

      (RHFAC)  -- No default     ! RHFAC = 0.0, 0.0, 0.0, 0.0,
                                           0.0, 0.0, 0.0, 0.0,
                                           0.0, 0.0, 0.0, 0.0 !

USED MVISBK = 6, DAILY EXTINCTIONS CALCULATED FROM MONTHLY F(RH) FROM TABLE A-2
IN "GUIDANCE FOR ESTIMATING NATURAL VISIBLITY CONDITIONS UNDER THE REGIONAL
HAZE RULE (EPA, 2003)".

     Additional inputs used for MVISBK = 7:
     --------------------------------------
      The weather data file (DATSAV abbreviated space-delimited) that
      is identified as VSRN.DAT may contain data for more than one
      station.  Identify the stations that are needed in the order in
      which they will be used to obtain valid weather and visual range.
      The first station that contains valid data for an hour will be
      used.  Enter up to MXWSTA (set in PARAMS file) integer station IDs
      of up to 6 digits each as variable IDWSTA, and enter the corresponding
      time zone for each, as variable TZONE (= UTC-LST).

      A prognostic weather data file with Bext for weather events may be used
      in place of the observed weather file.  Identify this as the VSRN.DAT
      file and use a station ID of IDWSTA = 999999, and TZONE = 0.

      NOTE:  TZONE identifies the time zone used in the dataset.  The
             DATSAV abbreviated space-delimited data usually are prepared
             with UTC time rather than local time, so TZONE is typically
             set to zero.

      (IDWSTA)   -- No default
```

```
   ! IDWSTA = 690230 ,80020 ,80140 !
    (TZONE)     -- No default
   ! TZONE  = 0.0 ,0.0 ,0.0 !


   Additional inputs used for MVISBK = 2,3,6,7:
   -------------------------------------------
     Background extinction coefficients are computed from monthly
     CONCENTRATIONS of ammonium sulfate (BKSO4), ammonium nitrate (BKNO3),
     coarse particulates (BKPMC), organic carbon (BKOC), soil (BKSOIL), and
     elemental carbon (BKEC).  Month 1 is January.
     (ug/m**3)

EXTINCTIONS FOR THE ENP ARE PROVIDED IN THE FLAG DOCUMENT (12/00)
NON-HYGROSCOPIC - 8.5
HYGROSCOPIC -  0.9/3 = 0.3
USED MVISBK = 6, DAILY EXTINCTIONS CALCULATED FROM MONTHLY RH FACTORS PROVIDED

     (BKSO4)  -- No default     ! BKSO4 = 0.3, 0.3, 0.3, 0.3,
                                          0.3, 0.3, 0.3, 0.3,
                                          0.3, 0.3, 0.3; 0.3 !
     (BKNO3)  -- No default     ! BKNO3 = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !
     (BKPMC)  -- No default     ! BKPMC = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !
     (BKOC)   -- No default     ! BKOC  = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !
     (BKSOIL) -- No default     ! BKSOIL= 8.5, 8.5, 8.5, 8.5,
                                          8.5, 8.5, 8.5, 8.5,
                                          8.5, 8.5, 8.5, 8.5 !
     (BKEC)   -- No default     ! BKEC  = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !

    Additional inputs used for MVISBK = 2,3,5,6,7:
    ---------------------------------------------
     Extinction due to Rayleigh scattering is added (1/Mm)
                             (BEXTRAY) -- Default: 10.0 ! BEXTRAY = 10.0 !

RAYLEIGH SCATTERING TAKEN FROM TABLE A2 OF THE "REVISED IMPROVE ALGORITHM FOR ESTIMATING
LIGHT EXTINCTION FROM PARTICLE SPECIATION DATA".

!END!
-------------------------------------------------------------------------------

INPUT GROUP: 3 -- Output options
--------------

Documentation
-------------

    Documentation records contained in the header of the
    CALPUFF output file may be written to the list file.
    Print documentation image?
                                (LDOC) -- Default: F   !  LDOC =  F  !

Output Units
------------
    Units for All Output       (IPRTU) -- Default: 1    ! IPRTU =  1    !
                       for               for
                  Concentration     Deposition
       1 =           g/m**3          g/m**2/s
       2 =          mg/m**3         mg/m**2/s
       3 =          ug/m**3         ug/m**2/s
       4 =          ng/m**3         ng/m**2/s
       5 =        Odour Units

    Visibility: extinction expressed in 1/Mega-meters (IPRTU is ignored)


Averaging time(s) reported
--------------------------
```

```
    1-hr averages           (L1HR) -- Default: T   !   L1HR = F  !

    3-hr averages           (L3HR) -- Default: T   !   L3HR = F  !

    24-hr averages         (L24HR) -- Default: T   !  L24HR = T  !

    Run-length averages    (LRUNL) -- Default: T   !  LRUNL = F  !

    User-specified averaging time in hours - results for
    an averaging time of NAVG hours are reported for
    NAVG greater than 0:
                            (NAVG) -- Default: 0   !   NAVG =  0  !


Types of tabulations reported
------------------------------

   1) Visibility: daily visibility tabulations are always reported
                  for the selected receptors when ASPEC = VISIB.
                  In addition, any of the other tabulations listed
                  below may be chosen to characterize the light
                  extinction coefficients.
                  [List file or Plot/Analysis File]


   2) Top 50 table for each averaging time selected
      [List file only]
                            (LT50) -- Default: T   !   LT50 = T  !

   3) Top 'N' table for each averaging time selected
      [List file or Plot file]
                           (LTOPN) -- Default: F   !  LTOPN = F  !

        -- Number of 'Top-N' values at each receptor
           selected (NTOP must be <= 4)
                            (NTOP) -- Default: 4   ! NTOP =  2   !

        -- Specific ranks of 'Top-N' values reported
           (NTOP values must be entered)
                   (ITOP(4) array) -- Default:     ! ITOP =  1,2  !
                                      1,2,3,4


   4) Threshold exceedance counts for each receptor and each averaging
      time selected
      [List file or Plot file]
                           (LEXCD) -- Default: F   !  LEXCD = F  !

        -- Identify the threshold for each averaging time by assigning a
           non-negative value (output units).

                                   -- Default: -1.0
           Threshold for  1-hr averages   (THRESH1) !  THRESH1 = -1.0  !
           Threshold for  3-hr averages   (THRESH3) !  THRESH3 = -1.0  !
           Threshold for 24-hr averages  (THRESH24) ! THRESH24 = -1.0  !
           Threshold for NAVG-hr averages (THRESHN) !  THRESHN = -1.0  !


        -- Counts for the shortest averaging period selected can be
           tallied daily, and receptors that experience more than NCOUNT
           counts over any NDAY period will be reported.  This type of
           exceedance violation output is triggered only if NDAY > 0.

           Accumulation period(Days)
                            (NDAY) -- Default: 0   !    NDAY =  0  !
           Number of exceedances allowed
                          (NCOUNT) -- Default: 1   !  NCOUNT =  1  !


   5) Selected day table(s)

      Echo Option -- Many records are written each averaging period
      selected and output is grouped by day
      [List file or Plot file]
```

```
                         (LECHO) -- Default: F   !  LECHO = F  !

     Timeseries Option -- Averages at all selected receptors for
     each selected averaging period are written to timeseries files.
     Each file contains one averaging period, and all receptors are
     written to a single record each averaging time.
     [TSERIES_ASPEC_ttHR_CONC_TSUNAM.DAT files]
                         (LTIME) -- Default: F   !  LTIME = F  !

     Peak Value Option -- Averages at all selected receptors for
     each selected averaging period are screened and the peak value
     each period is written to timeseries files.
     Each file contains one averaging period.
     [PEAKVAL_ASPEC_ttHR_CONC_TSUNAM.DAT files]
                         (LPEAK) -- Default: F   !  LPEAK = F  !

       -- Days selected for output
                    (IECHO(366)) -- Default: 366*0
          ! IECHO  = 366*0  !
          (366 values must be entered)

Plot output options
-------------------

     Plot files can be created for the Top-N, Exceedance, and Echo
     tables selected above.  Two formats for these files are available,
     DATA and GRID.  In the DATA format, results at all receptors are
     listed along with the receptor location [x,y,val1,val2,...].
     In the GRID format, results at only gridded receptors are written,
     using a compact representation.  The gridded values are written in
     rows (x varies), starting with the most southern row of the grid.
     The GRID format is given the .GRD extension, and includes headers
     compatible with the SURFER(R) plotting software.

     A plotting and analysis file can also be created for the daily
     peak visibility summary output, in DATA format only.

     Generate Plot file output in addition to writing tables
     to List file?
                             (LPLT) -- Default: F   ! LPLT   = F !

     Use GRID format rather than DATA format,
     when available?
                             (LGRD) -- Default: F   ! LGRD   = F !


Auxiliary Output Files (for subsequent analyses)
------------------------------------------------

      Visibility

      A separate output file may be requested that contains the change
      in visibility at each selected receptor when ASPEC = VISIB.  This
      file can be processed to construct visibility measures that are
      not available in CALPOST.

      Output file with the visibility change at each receptor?
                             (MDVIS) -- Default: 0   ! MDVIS   = 0 !

           0 =  Do Not create file
           1 =  Create file of DAILY (24 hour) Delta-Deciview
           2 =  Create file of DAILY (24 hour) Extinction Change (%)
           3 =  Create file of HOURLY Delta-Deciview
           4 =  Create file of HOURLY Extinction Change (%)


Additional Debug Output
-----------------------

    Output selected information to List file
     for debugging?
                            (LDEBUG) -- Default: F  ! LDEBUG   = F !

    Output hourly extinction information to REPORT.HRV?
```

```
     (Visibility Method 7)
                                    (LVEXTHR) -- Default: F   ! LVEXTHR = F !

!END!
```

APPENDIX D

SAMPLE CALPOST MODEL CONTROL FILE FOR NITROGEN DEPOSITION

```
FPL WCEC UNIT 3 PROJECT - CALPOST N DEPOSITION IMPACTS   EPA   8/22/07
EVERGLADES NP
4-km FL DOMAIN, 2002, ENP RECEPTORS
---------------- Run title (3 lines) ------------------------------------------

                    CALPOST MODEL CONTROL FILE
                    --------------------------

-------------------------------------------------------------------------------

INPUT GROUP: 0 -- Input and Output File Names
--------------

Input Files
-----------

File                          Default File Name
----                          -----------------
Conc/Dep Flux File            MODEL.DAT           ! MODDAT =..\EXAMPLE.DEP  !
Relative Humidity File        VISB.DAT            * VISDAT =   *
Background Data File          BACK.DAT            *BACKDAT =   *
Transmissometer or            VSRN.DAT            *VSRDAT =    *
Nephelometer Data File         or
DATSAV Weather Data File       or
Prognostic Weather  File

Output Files
------------

File                          Default File Name
----                          -----------------
List File                     CALPOST.LST         ! PSTLST =EXAMPLENDEP.LST  !

Pathname for Timeseries Files   (blank)           * TSPATH =   *
(activate with exclamation points only if
providing NON-BLANK character string)

Pathname for Plot Files   (blank)                 * PLPATH =   *
(activate with exclamation points only if
 providing NON-BLANK character string)

User Character String (U) to augment default filenames
(activate with exclamation points only if
 providing NON-BLANK character string)

Timeseries          TSERIES_ASPEC_ttHR_CONC_TSUNAM.DAT
Peak Value          PEAKVAL_ASPEC_ttHR_CONC_TSUNAM.DAT

                                                  * TSUNAM =   *

Top Nth Rank Plot   RANK(ALL)_ASPEC_ttHR_CONC_TUNAM.DAT
                or  RANK(ii)_ASPEC_ttHR_CONC_TUNAM.GRD

                                                  * TUNAM =   *

Exceedance Plot      EXCEED_ASPEC_ttHR_CONC_XUNAM.DAT
                 or  EXCEED_ASPEC_ttHR_CONC_XUNAM.GRD
```

```
                                          * XUNAM =    *

Echo Plot
(Specific Days)
           yyyy_Mmm_Ddd_hh00(UTCszzzz)_L00_ASPEC_ttHR_CONC.DAT
     or    yyyy_Mmm_Ddd_hh00(UTCszzzz)_L00_ASPEC_ttHR_CONC.GRD


Visibility Plot      DAILY_VISIB_VUNAM.DAT    ! VUNAM =VTEST    !
(Daily Peak Summary)



Auxiliary Output Files
----------------------

File                         Default File Name
----                         -----------------
Visibility Change            DELVIS.DAT          * DVISDAT = deciview.dat   *


--------------------------------------------------------------------------------
All file names will be converted to lower case if LCFILES = T
Otherwise, if LCFILES = F, file names will be converted to UPPER CASE
         T = lower case               ! LCFILES = T !
         F = UPPER CASE
NOTE: (1) file/path names can be up to 132 characters in length
NOTE: (2) Filenames for ALL PLOT and TIMESERIES FILES are constructed
          using a template that includes a pathname, user-supplied
          character(s), and context-specific strings, where
             ASPEC = Species Name
              CONC = CONC Or WFLX Or DFLX Or TFLX
                tt = Averaging Period (e.g. 03)
                ii = Rank (e.g. 02)
                hh = Hour(ending) in LST
             szzzz = LST time zone shift (EST is -0500)
              yyyy = Year(LST)
                mm = Month(LST)
                dd = day of month (LST)
          are determined internally based on selections made below.
          If a path or user-supplied character(s) are supplied, each
          must contain at least 1 non-blank character.

!END!
--------------------------------------------------------------------------------

INPUT GROUP: 1 -- General run control parameters
--------------

     Option to run all periods found
     in the met. file(s)  (METRUN)       Default: 0   ! METRUN =   0  !

         METRUN = 0 - Run period explicitly defined below
         METRUN = 1 - Run all periods in CALPUFF data file(s)

     Starting date:    Year  (ISYR) --    No default   ! ISYR  =  2002   !
```

```
     (used only if      Month (ISMO) --     No default    ! ISMO   =  1    !
      METRUN = 0)       Day   (ISDY) --     No default    ! ISDY   =  1    !
                        Hour  (ISHR) --     No default    ! ISHR   =  1    !

     Number of hours to process (NHRS) -- No default      ! NHRS   =  8760  !

     Process every hour of data?(NREP) -- Default: 1     ! NREP   =  1  !
      (1 = every hour processed,
       2 = every 2nd hour processed,
       5 = every 5th hour processed, etc.)

Species & Concentration/Deposition Information
----------------------------------------------

      Species to process (ASPEC)       -- No default      ! ASPEC = N !
      (ASPEC = VISIB for visibility processing)

      Layer/deposition code (ILAYER)   -- Default: 1      ! ILAYER = -3 !
        '1'  for CALPUFF concentrations,
        '-1' for dry deposition fluxes,
        '-2' for wet deposition fluxes,
        '-3' for wet+dry deposition fluxes.

      Scaling factors of the form:     -- Defaults:       ! A =  0.0    !
           X(new) = X(old) * A + B          A = 0.0       ! B =  0.0    !
        (NOT applied if A = B = 0.0)        B = 0.0

      Add Hourly Background Concentrations/Fluxes?
                                (LBACK)  -- Default: F    ! LBACK =  F !

Source information
------------------

   Option to process source contributions:
          0 =  Process only total reported contributions
          1 =  Sum all individual source contributions and process
          2 =  Run in TRACEBACK mode to identify source
               contributions at a SINGLE receptor
                              (MSOURCE) -- Default: 0     ! MSOURCE =  0  !

Receptor information
--------------------

   Gridded receptors processed?     (LG) -- Default: F    ! LG   = F   !
   Discrete receptors processed?    (LD) -- Default: F    ! LD   = T   !
   CTSG Complex terrain receptors processed?
                                   (LCT) -- Default: F    ! LCT = F   !

--Report results by DISCRETE receptor RING?
   (only used when LD = T)      (LDRING) -- Default: F    ! LDRING = F   !

--Select range of DISCRETE receptors (only used when LD = T):

   Select ALL DISCRETE receptors by setting NDRECP flag to -1;
                                 OR
   Select SPECIFIC DISCRETE receptors by entering a flag (0,1) for each
      0 = discrete receptor not processed
```

```
   1 = discrete receptor processed
 using repeated value notation to select blocks of receptors:
   23*1, 15*0, 12*1
 Flag for all receptors after the last one assigned is set to 0
 (NDRECP) -- Default: -1

 ! NDRECP = -1 !


--Select range of GRIDDED receptors (only used when LG = T):

      X index of LL corner (IBGRID) -- Default: -1     ! IBGRID = -1  !
          (-1 OR 1 <= IBGRID <= NX)

      Y index of LL corner (JBGRID) -- Default: -1     ! JBGRID = -1  !
          (-1 OR 1 <= JBGRID <= NY)

      X index of UR corner (IEGRID) -- Default: -1     ! IEGRID = -1  !
          (-1 OR 1 <= IEGRID <= NX)

      Y index of UR corner (JEGRID) -- Default: -1     ! JEGRID = -1  !
          (-1 OR 1 <= JEGRID <= NY)

  Note: Entire grid is processed if IBGRID=JBGRID=IEGRID=JEGRID=-1


--Specific gridded receptors can also be excluded from CALPOST
  processing by filling a processing grid array with 0s and 1s.  If the
  processing flag for receptor index (i,j) is 1 (ON), that receptor
  will be processed if it lies within the range delineated by IBGRID,
  JBGRID,IEGRID,JEGRID and if LG=T. If it is 0 (OFF), it will not be
  processed in the run.  By default, all array values are set to 1 (ON).

  Number of gridded receptor rows provided in Subgroup (1a) to
  identify specific gridded receptors to process
                         (NGONOFF) -- Default: 0      ! NGONOFF =  0  !

!END!


--------------
Subgroup (1a) -- Specific gridded receptors included/excluded
--------------

    Specific gridded receptors are excluded from CALPOST processing
    by filling a processing grid array with 0s and 1s.  A total of
    NGONOFF lines are read here.  Each line corresponds to one 'row'
    in the sampling grid, starting with the NORTHERNMOST row that
    contains receptors that you wish to exclude, and finishing with
    row 1 to the SOUTH (no intervening rows may be skipped).  Within
    a row, each receptor position is assigned either a 0 or 1,
    starting with the westernmost receptor.
       0 = gridded receptor not processed
       1 = gridded receptor processed

    Repeated value notation may be used to select blocks of receptors:
       23*1, 15*0, 12*1
```

```
     Because all values are initially set to 1, any receptors north of
     the first row entered, or east of the last value provided in a row,
     remain ON.

     (NGXRECP) -- Default: 1


-------------------------------------------------------------------------------

INPUT GROUP: 2 -- Visibility Parameters (ASPEC = VISIB)
--------------

     Identify the Base Time Zone for the CALPUFF simulation
                              (BTZONE) -- No default   ! BTZONE =  5.!

     Particle growth curve f(RH) for hygroscopic species
                               (MFRH) -- Default: 2   ! MFRH   =  2  !

          1 =  IWAQM (1998) f(RH) curve (originally used with MVISBK=1)
          2 =  FLAG (2000) f(RH) tabulation
          3 =  EPA (2003) f(RH) tabulation

     Maximum relative humidity (%) used in particle growth curve
                              (RHMAX) -- Default: 98    ! RHMAX  = 95.0 !

     Modeled species to be included in computing the light extinction
      Include SULFATE?           (LVSO4) -- Default: T   ! LVSO4   = T  !
      Include NITRATE?           (LVNO3) -- Default: T   ! LVNO3   = T  !
      Include ORGANIC CARBON?    (LVOC)  -- Default: T   ! LVOC    = T  !
      Include COARSE PARTICLES? (LVPMC)  -- Default: T   ! LVPMC   = T  !
      Include FINE PARTICLES?    (LVPMF) -- Default: T   ! LVPMF   = T  !
      Include ELEMENTAL CARBON? (LVEC)   -- Default: T   ! LVEC    = T  !

     And, when ranking for TOP-N, TOP-50, and Exceedance tables,
      Include BACKGROUND?        (LVBK)  -- Default: T   ! LVBK    = F  !

     Species name used for particulates in MODEL.DAT file
                   COARSE    (SPECPMC) -- Default: PMC ! SPECPMC = PMC !
                   FINE      (SPECPMF) -- Default: PMF ! SPECPMF = SOIL !

 Extinction Efficiency (1/Mm per ug/m**3)
 ----------------------------------------
     MODELED particulate species:
                PM  COARSE      (EEPMC) -- Default: 0.6 ! EEPMC   = 0.6 !
                PM  FINE        (EEPMF) -- Default: 1.0 ! EEPMF   = 1.0 !
     BACKGROUND particulate species:
                PM  COARSE    (EEPMCBK) -- Default: 0.6 ! EEPMCBK = 0.6 !
     Other species:
               AMMONIUM SULFATE (EESO4) -- Default: 3.0 ! EESO4   = 3.0 !
               AMMONIUM NITRATE (EENO3) -- Default: 3.0 ! EENO3   = 3.0 !
               ORGANIC CARBON   (EEOC)  -- Default: 4.0 ! EEOC    = 4.0 !
               SOIL             (EESOIL)-- Default: 1.0 ! EESOIL  = 1.0 !
               ELEMENTAL CARBON (EEEC)  -- Default: 10. ! EEEC    = 10.0 !

 Background Extinction Computation
 ---------------------------------
```

```
Method used for the 24h-average of percent change of light extinction:
Hourly ratio of source light extinction / background light extinction
is averaged?               (LAVER) -- Default: F   ! LAVER = F  !


Method used for background light extinction
                          (MVISBK) -- Default: 2   ! MVISBK =  2  !

     1 =  Supply single light extinction and hygroscopic fraction
          - Hourly F(RH) adjustment applied to hygroscopic background
            and modeled sulfate and nitrate
     2 =  Compute extinction from speciated PM measurements (A)
          - Hourly F(RH) adjustment applied to observed and modeled sulfate
            and nitrate
          - F(RH) factor is capped at F(RHMAX)
     3 =  Compute extinction from speciated PM measurements (B)
          - Hourly F(RH) adjustment applied to observed and modeled sulfate
            and nitrate
          - Receptor-hour excluded if RH>RHMAX
          - Receptor-day excluded if fewer than 6 valid receptor-hours
     4 =  Read hourly transmissometer background extinction measurements
          - Hourly F(RH) adjustment applied to modeled sulfate and nitrate
          - Hour excluded if measurement invalid (missing, interference,
            or large RH)
          - Receptor-hour excluded if RH>RHMAX
          - Receptor-day excluded if fewer than 6 valid receptor-hours
     5 =  Read hourly nephelometer background extinction measurements
          - Rayleigh extinction value (BEXTRAY) added to measurement
          - Hourly F(RH) adjustment applied to modeled sulfate and nitrate
          - Hour excluded if measurement invalid (missing, interference,
            or large RH)
          - Receptor-hour excluded if RH>RHMAX
          - Receptor-day excluded if fewer than 6 valid receptor-hours
     6 =  Compute extinction from speciated PM measurements
          - FLAG monthly RH adjustment factor applied to observed and
            modeled sulfate and nitrate
     7 =  Use observed weather or prognostic weather information for
          background extinction during weather events; otherwise, use Method
2
          - Hourly F(RH) adjustment applied to modeled sulfate and nitrate
          - F(RH) factor is capped at F(RHMAX)
          - During observed weather events, compute Bext from visual range
            if using an observed weather data file, or
          - During prognostic weather events, use Bext from the prognostic
            weather file
          - Use Method 2 for hours without a weather event

 Additional inputs used for MVISBK = 1:
 --------------------------------------
  Background light extinction (1/Mm)
                          (BEXTBK) -- No default   ! BEXTBK = 0.0 !
  Percentage of particles affected by relative humidity
                          (RHFRAC) -- No default   ! RHFRAC = 0.0 !

 Additional inputs used for MVISBK = 6:
 --------------------------------------
```

```
     Extinction coefficients for hygroscopic species (modeled and
     background) are computed using a monthly RH adjustment factor
     in place of an hourly RH factor (VISB.DAT file is NOT needed).
     Enter the 12 monthly factors here (RHFAC).  Month 1 is January.

     (RHFAC)  -- No default      ! RHFAC = 0.0, 0.0, 0.0, 0.0,
                                           0.0, 0.0, 0.0, 0.0,
                                           0.0, 0.0, 0.0, 0.0 !

USED MVISBK = 6, DAILY EXTINCTIONS CALCULATED FROM MONTHLY F(RH) FROM TABLE A-2
IN "GUIDANCE FOR ESTIMATING NATURAL VISIBLITY CONDITIONS UNDER THE REGIONAL
HAZE RULE (EPA, 2003)".

    Additional inputs used for MVISBK = 7:
    --------------------------------------
     The weather data file (DATSAV abbreviated space-delimited) that
     is identified as VSRN.DAT may contain data for more than one
     station.  Identify the stations that are needed in the order in
     which they will be used to obtain valid weather and visual range.
     The first station that contains valid data for an hour will be
     used.  Enter up to MXWSTA (set in PARAMS file) integer station IDs
     of up to 6 digits each as variable IDWSTA, and enter the corresponding
     time zone for each, as variable TZONE (= UTC-LST).

     A prognostic weather data file with Bext for weather events may be used
     in place of the observed weather file.  Identify this as the VSRN.DAT
     file and use a station ID of IDWSTA = 999999, and TZONE = 0.

     NOTE:  TZONE identifies the time zone used in the dataset.  The
            DATSAV abbreviated space-delimited data usually are prepared
            with UTC time rather than local time, so TZONE is typically
            set to zero.

     (IDWSTA)    -- No default
    ! IDWSTA = 690230 ,80020 ,80140 !
     (TZONE)     -- No default
    ! TZONE  = 0.0 ,0.0 ,0.0 !


    Additional inputs used for MVISBK = 2,3,6,7:
    --------------------------------------------
     Background extinction coefficients are computed from monthly
     CONCENTRATIONS of ammonium sulfate (BKSO4), ammonium nitrate (BKNO3),
     coarse particulates (BKPMC), organic carbon (BKOC), soil (BKSOIL), and
     elemental carbon (BKEC).  Month 1 is January.
     (ug/m**3)

EXTINCTIONS FOR THE ENP ARE PROVIDED IN THE FLAG DOCUMENT (12/00)
NON-HYGROSCOPIC - 8.5
HYGROSCOPIC -  0.9/3 = 0.3
USED MVISBK = 6, DAILY EXTINCTIONS CALCULATED FROM MONTHLY RH FACTORS PROVIDED

     (BKSO4)  -- No default      ! BKSO4 = 0.3, 0.3, 0.3, 0.3,
                                           0.3, 0.3, 0.3, 0.3,
                                           0.3, 0.3, 0.3, 0.3 !
     (BKNO3)  -- No default      ! BKNO3 = 0.0, 0.0, 0.0, 0.0,
                                           0.0, 0.0, 0.0, 0.0,
```

```
                                          0.0, 0.0, 0.0, 0.0 !
     (BKPMC)  -- No default      ! BKPMC = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !
     (BKOC)   -- No default      ! BKOC  = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !
     (BKSOIL) -- No default      ! BKSOIL= 8.5, 8.5, 8.5, 8.5,
                                          8.5, 8.5, 8.5, 8.5,
                                          8.5, 8.5, 8.5, 8.5 !
     (BKEC)   -- No default      ! BKEC  = 0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0,
                                          0.0, 0.0, 0.0, 0.0 !

    Additional inputs used for MVISBK = 2,3,5,6,7:
    ----------------------------------------------
     Extinction due to Rayleigh scattering is added (1/Mm)
                              (BEXTRAY) -- Default: 10.0 ! BEXTRAY = 10.0 !

RAYLEIGH SCATTERING TAKEN FROM TABLE A2 OF THE "REVISED IMPROVE ALGORITHM FOR
ESTIMATING
LIGHT EXTINCTION FROM PARTICLE SPECIATION DATA".

!END!
-------------------------------------------------------------------------------

INPUT GROUP: 3 -- Output options
--------------

Documentation
-------------

    Documentation records contained in the header of the
    CALPUFF output file may be written to the list file.
    Print documentation image?
                                 (LDOC) -- Default: F    !  LDOC =  F   !

Output Units
------------
    Units for All Output        (IPRTU) -- Default: 1    ! IPRTU =  1    !
                      for             for
                 Concentration    Deposition
       1 =          g/m**3          g/m**2/s
       2 =         mg/m**3         mg/m**2/s
       3 =         ug/m**3         ug/m**2/s
       4 =         ng/m**3         ng/m**2/s
       5 =        Odour Units

    Visibility: extinction expressed in 1/Mega-meters (IPRTU is ignored)


Averaging time(s) reported
--------------------------

    1-hr averages            (L1HR) -- Default: T    !   L1HR = F   !

    3-hr averages            (L3HR) -- Default: T    !   L3HR = F   !
```

```
     24-hr averages          (L24HR) -- Default: T   !  L24HR = F  !

     Run-length averages     (LRUNL) -- Default: T   !  LRUNL = T  !

     User-specified averaging time in hours - results for
     an averaging time of NAVG hours are reported for
     NAVG greater than 0:
                               (NAVG) -- Default: 0   !   NAVG =  0  !


Types of tabulations reported
------------------------------

   1) Visibility: daily visibility tabulations are always reported
                  for the selected receptors when ASPEC = VISIB.
                  In addition, any of the other tabulations listed
                  below may be chosen to characterize the light
                  extinction coefficients.
                  [List file or Plot/Analysis File]


   2) Top 50 table for each averaging time selected
      [List file only]
                               (LT50) -- Default: T   !   LT50 = F  !

   3) Top 'N' table for each averaging time selected
      [List file or Plot file]
                             (LTOPN) -- Default: F   !  LTOPN = T  !

        -- Number of 'Top-N' values at each receptor
           selected (NTOP must be <= 4)
                               (NTOP) -- Default: 4   ! NTOP =  1   !

        -- Specific ranks of 'Top-N' values reported
           (NTOP values must be entered)
                      (ITOP(4) array) -- Default:     ! ITOP =  1  !
                                         1,2,3,4


   4) Threshold exceedance counts for each receptor and each averaging
      time selected
      [List file or Plot file]
                             (LEXCD) -- Default: F   !  LEXCD = F  !

        -- Identify the threshold for each averaging time by assigning a
           non-negative value (output units).

                                      -- Default: -1.0
           Threshold for  1-hr averages   (THRESH1) !  THRESH1 = -1.0   !
           Threshold for  3-hr averages   (THRESH3) !  THRESH3 = -1.0   !
           Threshold for 24-hr averages  (THRESH24) ! THRESH24 = -1.0   !
           Threshold for NAVG-hr averages (THRESHN) !  THRESHN = -1.0   !


        -- Counts for the shortest averaging period selected can be
           tallied daily, and receptors that experience more than NCOUNT
```

```
counts over any NDAY period will be reported.  This type of
exceedance violation output is triggered only if NDAY > 0.

Accumulation period(Days)
                  (NDAY) -- Default: 0   !   NDAY =  0  !
Number of exceedances allowed
                (NCOUNT) -- Default: 1   !  NCOUNT =  1  !
```

5) Selected day table(s)

```
Echo Option -- Many records are written each averaging period
selected and output is grouped by day.
[List file or Plot file]
                 (LECHO) -- Default: F   !  LECHO = F  !

Timeseries Option -- Averages at all selected receptors for
each selected averaging period are written to timeseries files.
Each file contains one averaging period, and all receptors are
written to a single record each averaging time.
[TSERIES_ASPEC_ttHR_CONC_TSUNAM.DAT files]
                 (LTIME) -- Default: F   !  LTIME = F  !

Peak Value Option -- Averages at all selected receptors for
each selected averaging period are screened and the peak value
each period is written to timeseries files.
Each file contains one averaging period.
[PEAKVAL_ASPEC_ttHR_CONC_TSUNAM.DAT files]
                 (LPEAK) -- Default: F   !  LPEAK = F  !

  -- Days selected for output
             (IECHO(366)) -- Default: 366*0
     ! IECHO  = 366*0  !
     (366 values must be entered)
```

Plot output options

```
Plot files can be created for the Top-N, Exceedance, and Echo
tables selected above.  Two formats for these files are available,
DATA and GRID.  In the DATA format, results at all receptors are
listed along with the receptor location [x,y,val1,val2,...].
In the GRID format, results at only gridded receptors are written,
using a compact representation.  The gridded values are written in
rows (x varies), starting with the most southern row of the grid.
The GRID format is given the .GRD extension, and includes headers
compatible with the SURFER(R) plotting software.

A plotting and analysis file can also be created for the daily
peak visibility summary output, in DATA format only.

Generate Plot file output in addition to writing tables
to List file?
                        (LPLT) -- Default: F   ! LPLT  = F !

Use GRID format rather than DATA format,
when available?
```

```
                                 (LGRD) -- Default: F    ! LGRD   = F !

Auxiliary Output Files (for subsequent analyses)
------------------------------------------------

      Visibility

      A separate output file may be requested that contains the change
      in visibility at each selected receptor when ASPEC = VISIB.  This
      file can be processed to construct visibility measures that are
      not available in CALPOST.

      Output file with the visibility change at each receptor?
                                 (MDVIS) -- Default: 0    ! MDVIS   = 0 !

           0 =  Do Not create file
           1 =  Create file of DAILY (24 hour) Delta-Deciview
           2 =  Create file of DAILY (24 hour) Extinction Change (%)
           3 =  Create file of HOURLY Delta-Deciview
           4 =  Create file of HOURLY Extinction Change (%)


Additional Debug Output
-----------------------

   Output selected information to List file
    for debugging?
                                 (LDEBUG) -- Default: F   ! LDEBUG   = F !

   Output hourly extinction information to REPORT.HRV?
    (Visibility Method 7)
                                 (LVEXTHR) -- Default: F   ! LVEXTHR = F !

!END!
```