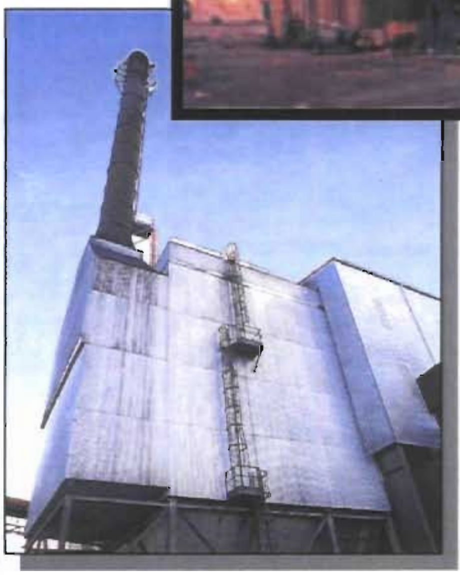
AIR PERMIT APPLICATION
BOILER NO. 8
UNITED STATES SUGAR CORPORATION
CLEWISTON, FLORIDA



Prepared By:

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

March 2003

0237619

Golder Associates Inc.

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

Golder Associates

March 31, 2003

RECEIVED

APR 01 2003

BUREAU OF AIR REGULATION

0237619

Florida Department of Environmental Protection
New Source Review Section
2600 Blair Stone Road, MS 5505
Tallahassee, FL 32399-2400

Attention: Alvaro A. Linero, P.E., Administrator

RE: U.S. SUGAR CORPORATION, CLEWISTON MILL
PSD PERMIT APPLICATION FOR THE PROPOSED BOILER NO. 8

Dear Mr. Linero:

Enclosed please find six (6) copies of the Prevention of Significant Deterioration (PSD) application for the proposed Boiler No. 8 at the Clewiston Mill.

Please feel free to call me at (352) 336-5600 ext. 545 if you have any questions.

Sincerely,

GOLDER ASSOCIATES INC.

Robert C. McCann Jr for

David A. Buff, P.E., Q.E.P.
Principal Engineer

DAB/jkw

Enclosures

cc: D. Griffin, U.S. Sugar

P:\Projects\2002\0237619 US Sugar\4\4.1\L033103.doc

AIR PERMIT APPLICATION
BOILER NO. 8
U.S. SUGAR CORPORATION
CLEWISTON, FLORIDA

Prepared For:
United States Sugar Corporation
111 Ponce DeLeon Ave.
Clewiston, Florida 33440

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

March 2003
0237619

DISTRIBUTION:
6 Copies - FDEP
2 Copies – U.S. Sugar
2 Copies – Golder Associates Inc.

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

April 3, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. John Bunyak, Chief
Policy, Planning & Permit Review Branch
Air Quality Division
National Park Service
P.O. Box 25287
Denver, CO 80225

Re: New Application for a PSD Air Construction Permit
U.S. Sugar Corporation, Clewiston Sugar Mill and Refinery
Proposed New Boiler No. 8
Project No. 0510003-021-AC

Dear Mr. Bunyak:

Enclosed for your review and comment is an application for a modification to an existing PSD facility. U.S. Sugar Corporation proposes to add a new 550,000 lb/hour steam boiler (1031 MMBtu/hour) to the existing Clewiston Sugar Mill and Refinery in Hendry County, Florida. The proposed boiler will fire primarily bagasse with ultra-low sulfur distillate oil and natural gas used for startup, shutdown and as a supplemental fuel. PSD applicability for the project is based on a netting analysis that includes the shutdown of existing Boiler No. 3, a 130,000 lb/hour steam boiler (265 MMBtu/hour). Based on a preliminary review, the applicant recommends the following control technologies for the PSD-significant pollutants:

Pollutant*	Applicant's Control Technology Recommendation
NOx	Boiler Design and Good Combustion Practices
PM/PM_{10}	Wet Cyclone Followed by an ESP
SAM	Low Sulfur Fuels (Bagasse, Natural Gas, and Ultra-Low Sulfur Distillate Oil)
SO2	Low Sulfur Fuels (Bagasse, Natural Gas, and Ultra-Low Sulfur Distillate Oil)
VOC	Boiler Design and Good Combustion Practices

* Based on the applicant's netting analysis, the project is not subject to PSD preconstruction review for CO, lead, mercury, or fluorides. The applicant also believes that the project is not subject to MACT.

Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/922-6979. If you have any questions, please contact the project engineer, Jeff Koerner, at 850/921-9536.

Sincerely,

Al Linero, Manager
New Source Review Section
Florida Department of Environmental Protection

Enclosure: New PSD Application

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

April 3, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Jeaneanne M. Gettle, Acting Chief
Air Planning Branch, Air Permits Section
U.S. EPA Region 4
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-8960

Re: New Application for a PSD Air Construction Permit
U.S. Sugar Corporation, Clewiston Sugar Mill and Refinery
Proposed New Boiler No. 8
Project No. 0510003-021-AC

Dear Ms. Gettle:

Enclosed for your review and comment is an application for a modification to an existing PSD facility. U.S. Sugar Corporation proposes to add a new 550,000 lb/hour steam boiler (1031 MMBtu/hour) to the existing Clewiston Sugar Mill and Refinery in Hendry County, Florida. The proposed boiler will fire primarily bagasse with ultra-low sulfur distillate oil and natural gas used for startup, shutdown and as a supplemental fuel. PSD applicability for the project is based on a netting analysis that includes the shutdown of existing Boiler No. 3, a 130,000 lb/hour steam boiler (265 MMBtu/hour). Based on a preliminary review, the applicant recommends the following control technologies for the PSD-significant pollutants:

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Sincerely,

Al Linero, Manager
New Source Review Section
Florida Department of Environmental Protection

Enclosure: New PSD Application

FLORIDA

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

April 3, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Ron Blackburn
Air Resources Section
South District Office
Florida Department of Environmental Protection
2295 Victoria Avenue, Suite 364
Fort Myers, FL 33901-3381

Re: New Application for a PSD Air Construction Permit
U.S. Sugar Corporation, Clewiston Sugar Mill and Refinery
Proposed New Boiler No. 8
Project No. 0510003-021-AC

Dear Mr. Blackburn:

Enclosed for your review and comment is an application for a modification to an existing PSD facility. U.S. Sugar Corporation proposes to add a new 550,000 lb/hour steam boiler (1031 MMBtu/hour) to the existing Clewiston Sugar Mill and Refinery in Hendry County, Florida. The proposed boiler will fire primarily bagasse with ultra-low sulfur distillate oil and natural gas used for startup, shutdown and as a supplemental fuel. PSD applicability for the project is based on a netting analysis that includes the shutdown of existing Boiler No. 3, a 130,000 lb/hour steam boiler (265 MMBtu/hour). Based on a preliminary review, the applicant recommends the following control technologies for the PSD-significant pollutants:

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Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/922-6979. If you have any questions, please contact the project engineer, Jeff Koerner, at 850/921-9536.

Sincerely,

Al Linero, Manager
New Source Review Section
Florida Department of Environmental Protection

Enclosure: New PSD Application

"More Protection, Less Process"

Printed on recycled paper.

AIR PERMIT APPLICATION FORM

Department of Environmental Protection

RECEIVED
APR 01 2003
BUREAU OF AIR REGULATION

Division of Air Resources Management

APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

Identification of Facility

1. Facility Owner/Company Name: **United States Sugar Corporation**	
2. Site Name: **U.S. Sugar Clewiston Mill**	
3. Facility Identification Number: **0510003** [ ] Unknown	
4. Facility Location: Street Address or Other Locator: **W.C. Owens Ave. and S.R. 832** City: **Clewiston** County: **Hendry** Zip Code: **33440**	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

Application Contact

1. Name and Title of Application Contact: **William A. Raiola, Vice President, Sugar Processing Operations**
2. Application Contact Mailing Address: Organization/Firm: **United States Sugar Corporation** Street Address: **111 Ponce DeLeon Ave.** City: **Clewiston** State: **FL** Zip Code: **33440**
3. Application Contact Telephone Numbers: Telephone: **(863) 983 - 8121** Fax: **(863) 902 - 2729**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	4-1-03
2. Permit Number:	0510003-031-AC
3. PSD Number (if applicable):	PSD-FL-333
4. Siting Number (if applicable):	

Purpose of Application

Air Operation Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[ ] Initial Title V air operation permit for an existing facility which is classified as a Title V source.

[ ] Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number: ____________________

[ ] Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: ____________________

Operation permit number to be revised: ____________________

[ ] Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected: ____________________

[ ] Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised: ____________________

Reason for revision: ____________________

Air Construction Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[X] Air construction permit to construct or modify one or more emissions units.

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
   William [illegible]. Raiola, Senior Vice President - Sugar Processing

2. Owner/Authorized Representative or Responsible Official Mailing Address:
   Organization/Firm: **United States Sugar Corporation**
   Street Address: **111 Ponce DeLeon Ave.**
   City: **Clewiston** State: **FL** Zip Code: **33440**

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
   Telephone: **(863) 902 - 2703** Fax: **(863) 902 - 2729**

4. Owner/Authorized Representative or Responsible Official Statement:

   I, the undersigned, am the owner or authorized representative(check here [ ], if so) or the responsible official (check here [X], if so) of the Title V source addressed in this application, whichever is applicable. 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. 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 any permitted emissions unit.*

   Signature: ______________________ Date: March 28, 2003

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: **David A. Buff**
   Registration Number: **19011**

2. Professional Engineer Mailing Address:
   Organization/Firm: **Golder Associates Inc. ***
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653-1500**

3. Professional Engineer Telephone Numbers:
   Telephone: **(352) 336 - 5600** Fax: **(352) 336 - 6603**

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

4. 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.

If the purpose of this application is to obtain a Title V source 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 schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X], 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.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision 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.

David A. Buff — Signature

3/31/03 — Date

(seal)

* Attach any exception to certification statement.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
	Boiler No. 8	AC1A	
	Bagasse Handling System	AC1A	

Application Processing Fee

Check one: [ ] Attached - Amount: $: ____________________ [X] Not Applicable

Construction/Modification Information

1. Description of Proposed Project or Alterations: **United States Sugar Corp. is proposing to install a new bagasse/oil/gas-fired boiler (Boiler No. 8). Boiler No. 3 will be shut down as part of the project. The new boiler will provide additional steam to the sugar mill and refinery.**
2. Projected or Actual Date of Commencement of Construction: **September 1, 2003**
3. Projected Date of Completion of Construction: **December 31, 2006**

Application Comment

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone: **17** East (km): **506.1** North (km): **2956.9**			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): **26 / 44 / 6** Longitude (DD/MM/SS): **80 / 56 / 19**			
3. Governmental Facility Code: **0**	4. Facility Status Code: **A**	5. Facility Major Group SIC Code: **20**	6. Facility SIC(s): **2061, 2062**
7. Facility Comment (limit to 500 characters):			

Facility Contact

1. Name and Title of Facility Contact: **William A. Raiola, Vice President, Sugar Processing Operations**
2. Facility Contact Mailing Address: Organization/Firm: **United States Sugar Corporation** Street Address: **111 Ponce DeLeon Ave.** City: **Clewiston** State: **FL** Zip Code: **33440**
3. Facility Contact Telephone Numbers: Telephone: (**863**) **983 - 8121** Fax: (**863**) **902 - 2729**

Facility Regulatory Classifications

Check all that apply:

1. [ ] Small Business Stationary Source?	[ ] Unknown
2. [X] Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	
3. [ ] Synthetic Minor Source of Pollutants Other than HAPs?	
4. [X] Major Source of Hazardous Air Pollutants (HAPs)?	
5. [ ] Synthetic Minor Source of HAPs?	
6. [X] One or More Emissions Units Subject to NSPS?	
7. [ ] One or More Emission Units Subject to NESHAP?	
8. [ ] Title V Source by EPA Designation?	
9. Facility Regulatory Classifications Comment (limit to 200 characters): **One or more emission units potentially subject to NESHAP for asbestos removal in the event that the facility may wish to perform asbestos removal in the future.**	

List of Applicable Regulations

Attachment UC-FI-A - Title V core list, effective date 3/01/02	

B. FACILITY POLLUTANTS

List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap lb/hour	tons/year	4. Basis for Emissions Cap	5. Pollutant Comment
PM	**A**				**Particulate Matter – Total**
SO_2	**A**				**Sulfur Dioxide**
NO_X	**A**				**Nitrogen Oxides**
CO	**A**				**Carbon Monoxide**
PM_{10}	**A**				**Particulate Matter – PM_{10}**
SAM	**A**				**Sulfuric Acid Mist**
HAPs	**A**				**Total Hazardous Air Pollutants**
VOC	**A**				**Volatile Organic Compounds**
H001	**A**				**Acetaldehyde**
H017	**A**				**Benzene**
H095	**A**				**Formaldehyde**
H144	**A**				**Phenol**
H151	**A**				**Polycyclic Organic Matter**
H163	**A**				**Styrene**
H169	**A**				**Toluene**
H132	**A**				**Naphthalene**
H058	**A**				**Dibenzofuran**

C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements

1.	Area Map Showing Facility Location: [X] Attached, Document ID: UC-FI-C1 [ ] Not Applicable [ ] Waiver Requested
2.	Facility Plot Plan: [X] Attached, Document ID: UC-FI-C2 [ ] Not Applicable [ ] Waiver Requested
3.	Process Flow Diagram(s): [X] Attached, Document ID: UC-FI-C3 [ ] Not Applicable [ ] Waiver Requested
4.	Precautions to Prevent Emissions of Unconfined Particulate Matter: [ ] Attached, Document ID: ______ [X] Not Applicable [ ] Waiver Requested
5.	Fugitive Emissions Identification: [X] Attached, Document ID: PSD Report [ ] Not Applicable [ ] Waiver Requested
6.	Supplemental Information for Construction Permit Application: [X] Attached, Document ID: PSD Report [ ] Not Applicable
7.	Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

8. List of Proposed Insignificant Activities: [ ] Attached, Document ID: __________ [X] Not Applicable
9. List of Equipment/Activities Regulated under Title VI: [ ] Attached, Document ID:________ [ ] Equipment/Activities On site but Not Required to be Individually Listed [X] Not Applicable
10. Alternative Methods of Operation: [ ] Attached, Document ID: __________ [X] Not Applicable
11. Alternative Modes of Operation (Emissions Trading): [ ] Attached, Document ID: __________ [X] Not Applicable
12. Identification of Additional Applicable Requirements: [ ] Attached, Document ID: __________ [X] Not Applicable
13. Risk Management Plan Verification: [ ] Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID:________) or previously submitted to DEP (Date and DEP Office:____________________) [ ] Plan to be submitted to CEPPO (Date required:____________________) [X] Not Applicable
14. Compliance Report and Plan: [ ] Attached, Document ID: __________ [X] Not Applicable
15. Compliance Certification (Hard-copy Required): [ ] Attached, Document ID: __________ [X] Not Applicable

ATTACHMENT UC-FI-A

FACILITY REGULATIONS

Title V Core List   Effective: 03/01/02

[**Note:** The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

Federal: ***(description)***

40 CFR 61, Subpart M: NESHAP for Asbestos.

~~40 CFR 82: Protection of Stratospheric Ozone.~~
~~40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).~~
~~40 CFR 82, Subpart F: Recycling and Emissions Reduction.~~

State: ***(description)***

CHAPTER 62-4, F.A.C.: PERMITS, effective 06-01-01

62-4.030, F.A.C.: General Prohibition.
62-4.040, F.A.C.: Exemptions.
62-4.050, F.A.C.: Procedure to Obtain Permits; Application
62-4.060, F.A.C.: Consultation.
62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.
62-4.080, F.A.C.: Modification of Permit Conditions.
62-4.090, F.A.C.: Renewals.
62-4.100, F.A.C.: Suspension and Revocation.
62-4.110, F.A.C.: Financial Responsibility.
62-4.120, F.A.C.: Transfer of Permits.
62-4.130, F.A.C.: Plant Operation - Problems.
62-4.150, F.A.C.: Review
62-4.160, F.A.C.: Permit Conditions.
62-4.210, F.A.C.: Construction Permits.
62-4.220, F.A.C.: Operation Permit for New Sources.

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 06-21-01

62-210.300, F.A.C.: Permits Required.
62-210.300(1), F.A.C.: Air Construction Permits.
62-210.300(2), F.A.C.: Air Operation Permits.
62-210.300(3), F.A.C.: Exemptions.
62-210.300(5), F.A.C.: Notification of Startup.
62-210.300(6), F.A.C.: Emissions Unit Reclassification.
62-210.300(7), F.A.C.: Transfer of Air Permits.

62-210.350, F.A.C.: Public Notice and Comment.
62-210.350(1), F.A.C.: Public Notice of Proposed Agency Action.
62-210.350(2), F.A.C.: Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment-Area Preconstruction Review.
62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources.

62-210.360, F.A.C.: Administrative Permit Corrections.
62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.
62-210.400, F.A.C.: Emission Estimates.
62-210.650, F.A.C.: Circumvention.
62-210.700, F.A.C.: Excess Emissions

62-210.900, F.A.C.: Forms and Instructions.
62-210.900(1), F.A.C.: Application for Air Permit - Title V Source, Form and Instructions.
62-210.900(5), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.
62-210.900(7), F.A.C.: Application for Transfer of Air Permit - Title V and Non-Title V Source.

CHAPTER 62-212, F.A.C.: STATIONARY SOURCES- PRECONSTRUCTION REVIEW, effective 08-17-00

CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 04-16-01

62-213.205, F.A.C.: Annual Emissions Fee.
62-213.400, F.A.C.: Permits and Permit Revisions Required.
62-213.410, F.A.C.: Changes Without Permit Revision.
62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.
62-213.415, F.A.C.: Trading of Emissions Within a Source.
62-213.420, F.A.C.: Permit Applications.
62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.
62-213.440, F.A.C.: Permit Content.
62-213.450, F.A.C.: Permit Review by EPA and Affected States
62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.
62-213.900(1), F.A.C.: Major Air Pollution Source Annual Emissions Fee Form.
62-213.900(7), F.A.C.: Statement of Compliance Form

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS,
effective 03-02-99

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.
62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter

CHAPTER 62-297, F.A.C.: STATIONARY SOURCES - EMISSIONS MONITORING,
effective 03-02-99

62-297.310, F.A.C.: General Test Requirements.
62-297.330, F.A.C.: Applicable Test Procedures.
62-297.340, F.A.C.: Frequency of Compliance Tests.
62-297.345, F.A.C.: Stack Sampling Facilities Provided by the Owner of an Emissions Unit.
62-297.350, F.A.C.: Determination of Process Variables.
62-297.570, F.A.C.: Test Report.
62-297.620, F.A.C.: Exceptions and Approval of Alternate Procedures and Requirements.

Miscellaneous:

CHAPTER 28-106, F.A.C.: Decisions Determining Substantial Interests
CHAPTER 62-110, F.A.C.: Exception to the Uniform Rules of Procedure, effective 07-01-98
CHAPTER 62-256, F.A.C.: Open Burning and Frost Protection Fires, effective 11-30-94
CHAPTER 62-257, F.A.C.: Asbestos Notification and Fee, effective 02-09-99
~~**CHAPTER 62-281, F.A.C.:** Motor Vehicle Air Conditioning Refrigerant Recovery and Recycling, effective 09-10-96~~

ATTACHMENT UC-FI-C1

AREA MAP SHOWING FACILITY LOCATION

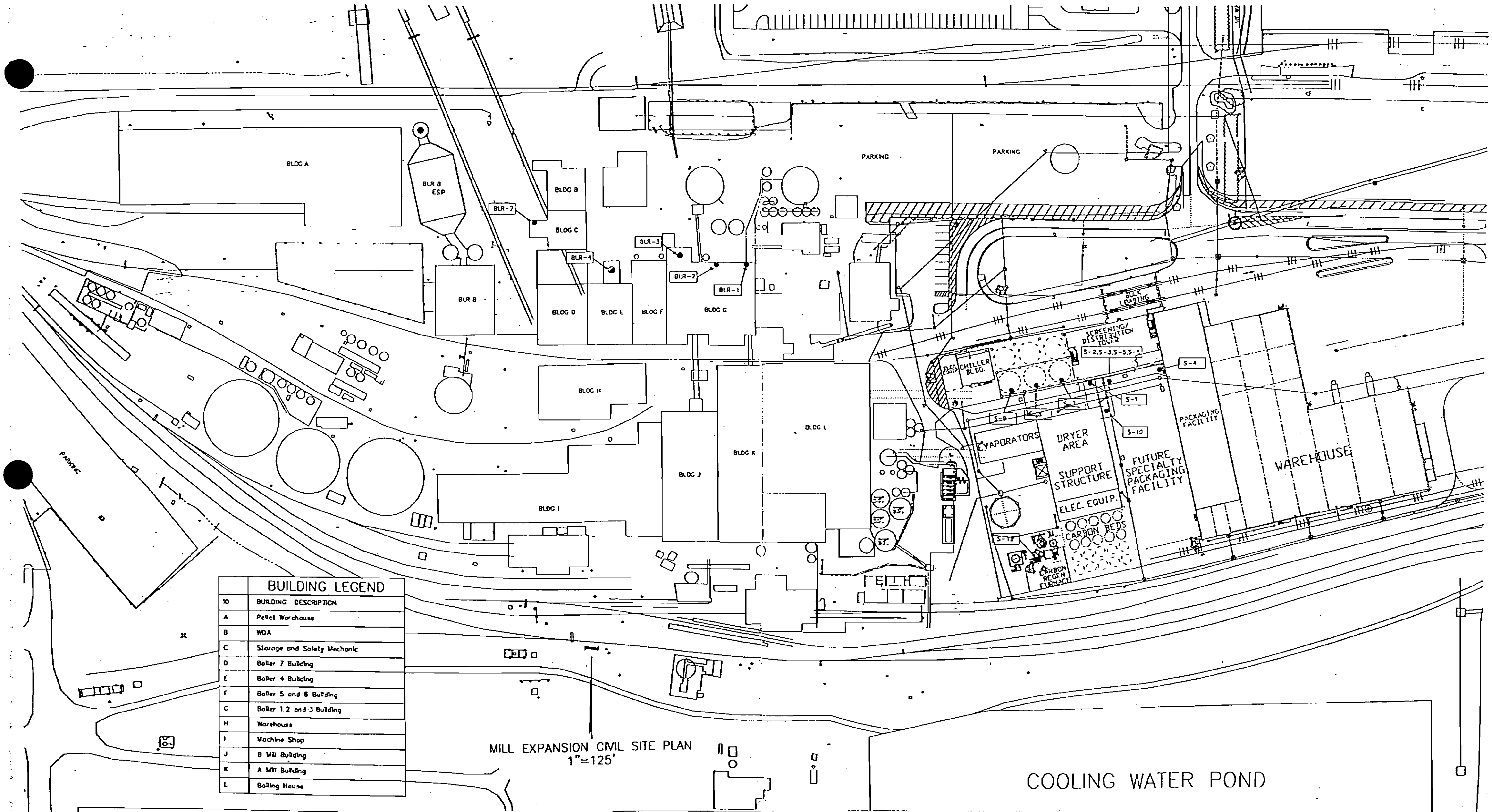
Attachment UC-FI-C1
Location of U.S. Sugar Corporation, Clewiston Mill

Source: Golder Associates Inc., 2002.

Golder Associates

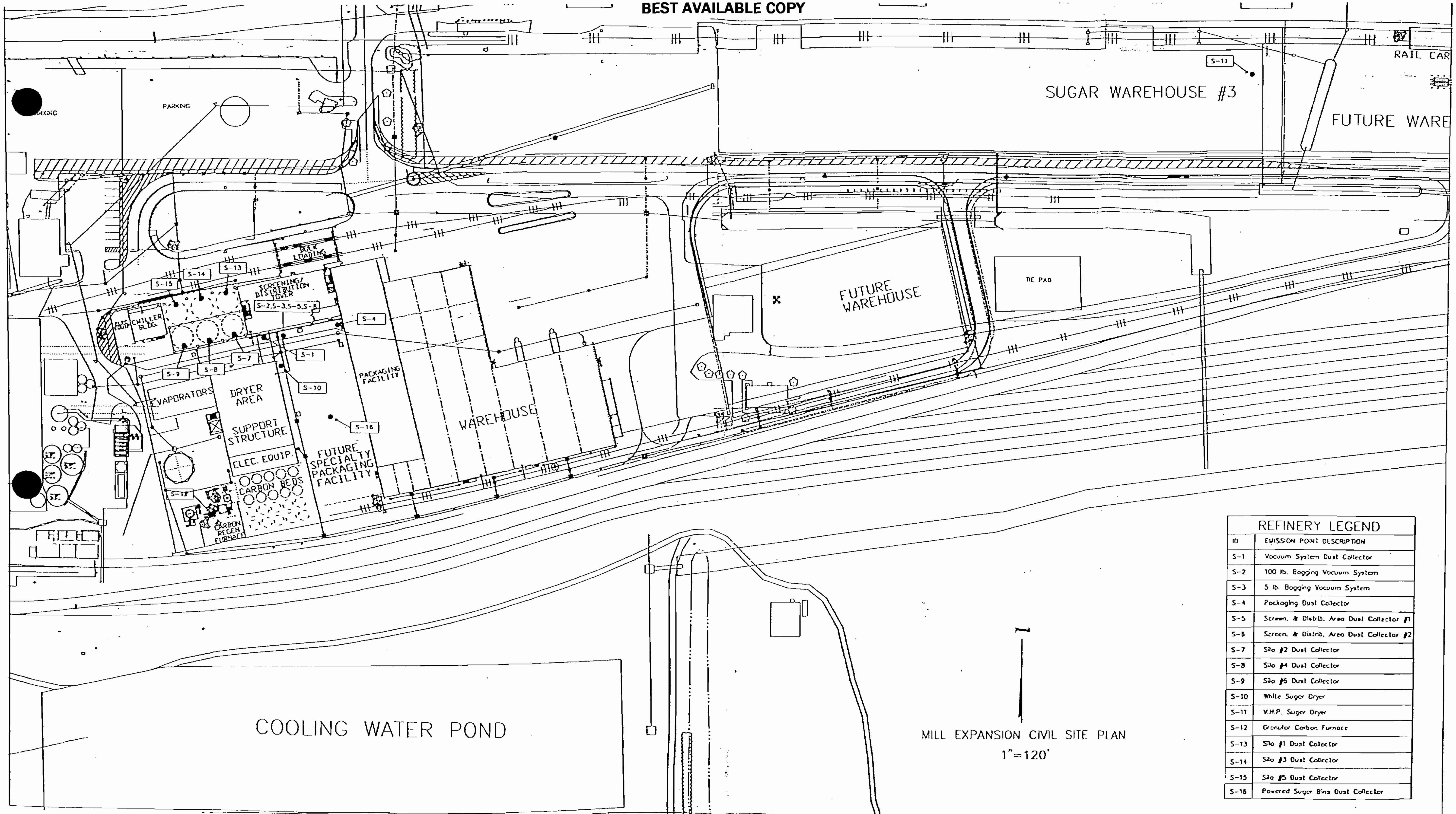
ATTACHMENT UC-FI-C2

FACILITY PLOT PLANS



Attachment UC-FI-C2, Page 1. Clewiston Mill Plot Plan of Existing Sources and Major Buildings

Golder Associates



REFINERY LEGEND

ID	EMISSION POINT DESCRIPTION
S-1	Vacuum System Dust Collector
S-2	100 lb. Bagging Vacuum System
S-3	5 lb. Bagging Vacuum System
S-4	Packaging Dust Collector
S-5	Screen. & Distrib. Area Dust Collector #1
S-6	Screen. & Distrib. Area Dust Collector #2
S-7	Silo #2 Dust Collector
S-8	Silo #4 Dust Collector
S-9	Silo #6 Dust Collector
S-10	White Sugar Dryer
S-11	V.H.P. Sugar Dryer
S-12	Granular Carbon Furnace
S-13	Silo #1 Dust Collector
S-14	Silo #3 Dust Collector
S-15	Silo #5 Dust Collector
S-16	Powered Sugar Bins Dust Collector

Attachment UC-FI-C2, Page 2. Location of Sugar Refinery Sources and Major Buildings

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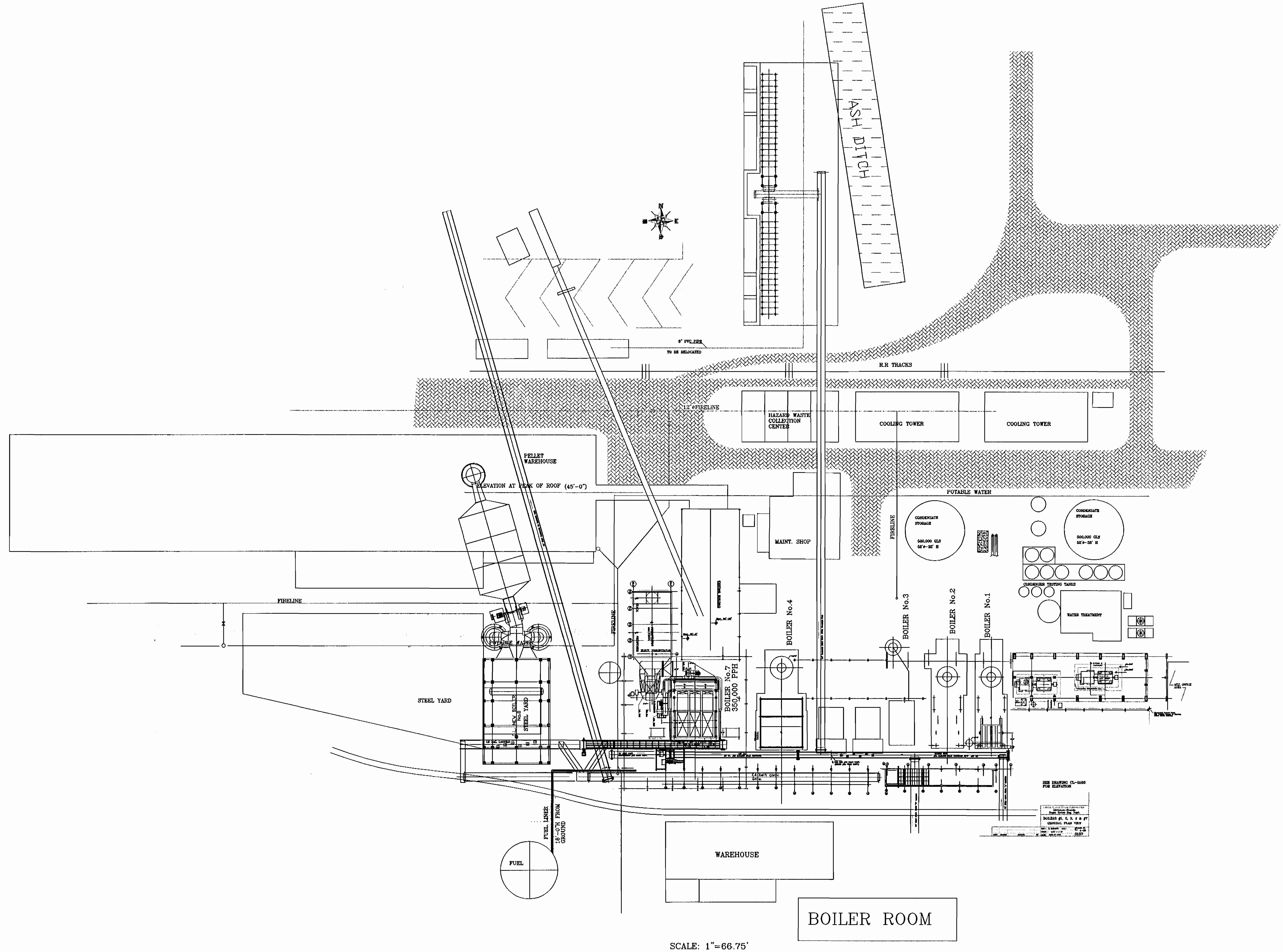
(1) 0510003-021 AC



Attachment UC-FI-C2, Page 3. Clewiston Mill Plot Plan of Existing Sources and Major Buildings

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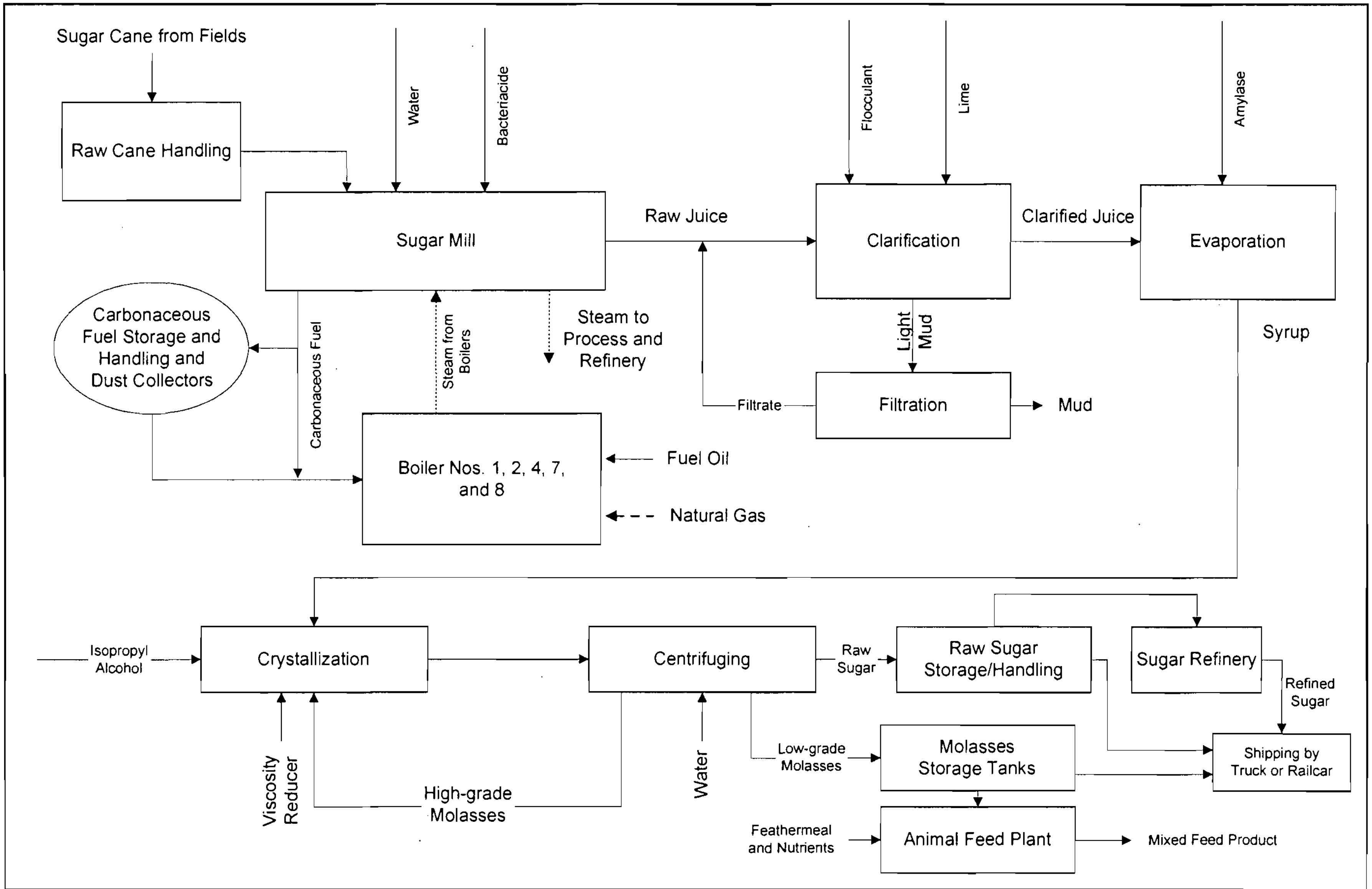
ATTACHMENT UC-FI-C3

PROCESS FLOW DIAGRAM



Attachment UC-FI-C3
Process Flow Diagram
U.S. Sugar Corporation
Clewiston Mill, Florida

Process Flow Legend
Solid/Liquid ⟶
Steam ·········▸
Gaseous - - - - ▸

Clewiston Sugar Mill Facility

Filename: 0237619\4\4.4\4.4.1\UC-FI-C3.VSD

Date: 03/28/03

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III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

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

[X] 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. Regulated or Unregulated Emissions Unit? (Check one)

[X] 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.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):

Boiler No. 8

4. Emissions Unit Identification Number: [X] No ID
ID: [ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C		**20**	[ ]

9. Emissions Unit Comment: (Limit to 500 Characters)

Stoker boiler fired by carbonaceous fuel, low sulfur No. 2 fuel oil, and natural gas.

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method): **Electrostatic Precipitator** **Wet Sand Separator**	
2. Control Device or Method Code(s):	**010, 099**

Emissions Unit Details

1. Package Unit: Manufacturer:	Model Number:	
2. Generator Nameplate Rating:	MW	
3. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:		 °F seconds °F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:			1,030	mmBtu/hr
2. Maximum Incineration Rate:		lb/hr		tons/day
3. Maximum Process or Throughput Rate:				
4. Maximum Production Rate:			550,000	lb/hr steam
5. Requested Maximum Operating Schedule:				
	24	hours/day	7	days/week
	52	weeks/year	8,760	hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters): Maximum heat input based on 1-hour maximum steam rate (above) for carbonaceous fuel firing. Maximum 24-hour average firing for carbonaceous fuel is 936 MMBtu/hr. Proposed maximum for No. 2 fuel oil and natural gas is 562 MMBtu/hr.				

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

40 CFR 60.40b(a): 40 CFR 63, Subpart Db Applicability
40 CFR 60.40b(j): 40 CFR 63, Subpart Db Applicability
40 CFR 60.42b(a): Standard for Sulfur Dioxide
40 CFR 60.42b(j)(2): Standard for Sulfur Dioxide
40 CFR 60.43b(e): Standard for Particulate Matter and Opacity
40 CFR 60.43b(f): Standard for Particulate Matter and Opacity
40 CFR 60.43b(g): Standard for Particulate Matter and Opacity
40 CFR 60.45b(a): Compliance and Performance Test Methods for Sulfur Dioxide
40 CFR 60.45b(j): Compliance and Performance Test Methods for Sulfur Dioxide
40 CFR 60.46b(a): Compliance and Performance Test Methods for Particulate Matter
40 CFR 60.46b(d)(7): Compliance and Performance Test Methods for Particulate Matter
40 CFR 60.47b(f): Emission Monitoring for Sulfur Dioxide
40 CFR 60.48b(a): Emission Monitoring for Particulate Matter and Nitrogen Oxides
40 CFR 60.49b(a): Reporting and Recordkeeping Requirements
40 CFR 60.49b(d): Reporting and Recordkeeping Requirements
40 CFR 60.49b(f): Reporting and Recordkeeping Requirements
40 CFR 60.49b(h)(1): Reporting and Recordkeeping Requirements
40 CFR 60.49b(h)(3): Reporting and Recordkeeping Requirements
40 CFR 60.49b(j): Reporting and Recordkeeping Requirements
40 CFR 60.49b(o): Reporting and Recordkeeping Requirements
40 CFR 60.49b(r): Reporting and Recordkeeping Requirements
62-204.800(b)(3), F.A.C.: NSPS Subpart Db Adopted by Reference
62-212.400, F.A.C.: Prevention of Significant Deterioration
62-296.410(2), F.A.C.: Carbonaceous Fuel Burning Equipment
62-296.410(3), F.A.C.: Carbonaceous Fuel Burning Equipment
62-297.310(1), F.A.C.: General Compliance Test Requirements
62-297-310(2)(b), F.A.C.: General Compliance Test Requirements
62-297-310(3), F.A.C.: General Compliance Test Requirements
62-297-310(4), F.A.C.: General Compliance Test Requirements
62-297-310(5), F.A.C.: General Compliance Test Requirements
62-297-310(6), F.A.C.: General Compliance Test Requirements
62-297-310(7), F.A.C.: General Compliance Test Requirements

62-297.310(8), F.A.C.: General Compliance Test Requirements
62-297.401(1), F.A.C.: EPA Test Method 1
62-297.401(2), F.A.C.: EPA Test Method 2
62-297.401(3), F.A.C.: EPA Test Method 3
62-297.401(4), F.A.C.: EPA Test Method 4
62-297.401(5), F.A.C.: EPA Test Method 5
62-297.401(6), F.A.C.: EPA Test Method 6
62-297.401(6)(c), F.A.C.: EPA Test Method 6C
62-297.401(7), F.A.C.: EPA Test Method 7
62-297.401(7)(e), F.A.C.: EPA Test Method 7E
62-297.401(8), F.A.C.: EPA Test Method 8
62-297.401(9), F.A.C.: EPA Test Method 9
62-297.401(10), F.A.C.: EPA Test Method 10
62-297.401(18), F.A.C.: EPA Test Method 18
62-297.401(25)(a), F.A.C.: EPA Test Method 25A

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? **BLR-8**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **199** feet	7. Exit Diameter: **13.0** feet
8. Exit Temperature: **330** °F	9. Actual Volumetric Flow Rate: **400,000** acfm	10. Water Vapor: **24** %
11. Maximum Dry Standard Flow Rate: **225,000** dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):		

14. Emission Point Comment (limit to 200 characters):

Stack parameters based on biomass firing at maximum 24-hour heat input rate. Maximum Dry Standard Flow Rate is at 7-percent O_2.

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 3

1. Segment Description (Process/Fuel Type) (limit to 500 characters):

   External combustion boilers; Industrial; Bagasse; All boiler sizes

2. Source Classification Code (SCC): **1-02-011-01**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **143.06**	5. Maximum Annual Rate: **939,875**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.1 (dry)**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **7.2**

10. Segment Comment (limit to 200 characters):

    Maximum hourly rate based on 1,030 MMBtu/hr (1-hr max) and maximum annual rate based on 75-percent capacity factor.

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type) (limit to 500 characters):

   External combustion boilers; Industrial; Distillate Oil; Grades 1 and 2

2. Source Classification Code (SCC): **1-02-005-01**	3. SCC Units: **1000 Gallons Burned**	
4. Maximum Hourly Rate: **4.161**	5. Maximum Annual Rate: **6,073.6**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.05**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **135**

10. Segment Comment (limit to 200 characters):

    Rates based on proposed 562 MMBtu/hr and a maximum of 6,073,600 gallons of fuel oil per year.

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 3 of 3

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **External Combustion Boilers – Industrial: Natural gas; over 100 MMBtu/hr**		
2. Source Classification Code (SCC): **1-02-006-01**	3. SCC Units: **Million Cubic Feet Burned**	
4. Maximum Hourly Rate: **0.562**	5. Maximum Annual Rate: **820**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **1,000**
10. Segment Comment (limit to 200 characters): **Rates based on 562 MMBtu/hr and maximum of 820 MMscf/yr of natural gas.**		

Segment Description and Rate: Segment ____ of ____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
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 (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	099	010	EL
PM_{10}	099	010	EL
SO_2			EL
NO_x			EL
CO			EL
VOC			EL
SAM			EL
PB	099	010	NS
H021	099	010	NS
H114			NS
H017			NS
H095			NS
HAPS			NS

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **26.8** lb/hour **88.0** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: **0.026 lb/MMBtu** Reference: **Proposed BACT limit**	7. Emissions Method Code: **0**
8. Calculation of Emissions (limit to 600 characters): **Maximum hourly rate: 1,030 MMBtu/hr x 0.026 lb/MMBtu = 26.8 lb/hr** **Annual: 6,767,100 MMBtu/yr x 0.026 lb/MMBtu ÷ 2,000 lb/ton = 88.0 TPY**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions representative of bagasse firing.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.026 lb/MMBtu**	4. Equivalent Allowable Emissions: **26.8** lb/hour **88.0** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 5 or 17**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Proposed BACT limit. Emissions representative of bagasse firing only.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **26.8** lb/hour **88.0** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: **0.026 lb/MMBtu** Reference: **Proposed BACT limit**	7. Emissions Method Code: **0**
8. Calculation of Emissions (limit to 600 characters): **Maximum hourly rate: 1,030 MMBtu/hr x 0.026 lb/MMBtu = 26.8 lb/hr** **Annual: 6,767,100 MMBtu/yr x 0.026 lb/MMBtu ÷ 2,000 lb/ton = 88.0 TPY**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions representative of bagasse firing.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.026 lb/MMBtu**	4. Equivalent Allowable Emissions: **26.8** lb/hour **88.0** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 5 or 17**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Proposed BACT limit. Emissions representative of bagasse firing only.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: SO_2

2. Total Percent Efficiency of Control:

3. Potential Emissions: 175.1 lb/hour 203.0 tons/year

4. Synthetically Limited? [X]

5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year

6. Emission Factor: 0.17 lb/MMBtu (1 hour)
   Reference: Proposed BACT limit

7. Emissions Method Code: 0

8. Calculation of Emissions (limit to 600 characters):

   Maximum hourly rate: 1,030 MMBtu/hr x 0.17 lb/MMBtu = 175.1 lb/hr
   Annual: 6,767,100 MMBtu/yr x 0.06 lb/MMBtu ÷ 2,000 lb/ton = 203.0 TPY

9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):

   Potential emissions representative of bagasse firing.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER

2. Future Effective Date of Allowable Emissions:

3. Requested Allowable Emissions and Units: 0.06 lb/MMBtu

4. Equivalent Allowable Emissions: lb/hour 203.0 tons/year

5. Method of Compliance (limit to 60 characters):

   EPA Method 6 or 6c

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):

   Proposed annual limit is 0.06 lb/MMBtu.

   Emissions representative of bagasse firing only.

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.05 lb/MMBtu**	4. Equivalent Allowable Emissions: **28.1** lb/hour **20.5** tons/year
5. Method of Compliance (limit to 60 characters): **Fuel Analysis**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 6,073,600 gal/yr.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **NO_x**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **226.6** lb/hour **744.4** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: **0.22 lb/MMBtu** Reference: **Permit No. 0510003-14-AV**	7. Emissions Method Code: **0**
8. Calculation of Emissions (limit to 600 characters): **Maximum hourly rate: 1,030 MMBtu/hr x 0.22 lb/MMBtu = 226.6 lb/hr** **Annual: 6,767,100 MMBtu/yr x 0.22 lb/MMBtu ÷ 2,000 lb/ton = 744.4 TPY**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions representative of bagasse firing.**	

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.22 lb/MMBtu**	4. Equivalent Allowable Emissions: **226.6** lb/hour **744.4** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 7 or 7E**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Proposed BACT limit. Emissions representative of bagasse firing only.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.22 lb/MMBtu**	4. Equivalent Allowable Emissions: **123.64** lb/hour **81.99** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 7 or 7E**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Proposed BACT limit. Emissions representative of No. 2 fuel oil firing only. Annual emissions based on proposed limit of 6,073,600 gal/yr.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.22 lb/MMBtu**	4. Equivalent Allowable Emissions: **123.64** lb/hour **81.99** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 7 or 7E**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Proposed BACT limit. Based on natural gas firing.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **6,695** lb/hour **1,285.8** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: **363 ppmvd @ 7-percent O_2** Reference:	7. Emissions Method Code: **0**

8. Calculation of Emissions (limit to 600 characters):

Maximum hourly rate: 1,030 MMBtu/hr x 6.5 lb/MMBtu = 6,383 lb/hr

Annual: 363 ppmvd @ 7-percent O_2 equivalent to 0.38 lb/MMBtu (see PSD Report)

6,767,100 MMBtu/yr x 0.38 lb/MMBtu ÷ 2,000 lb/ton = 1,285.8 TPY

9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):

Potential emissions representative of bagasse firing.

Annual limit based on 12-month rolling average.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.38 lb/MMBtu (annual)**	4. Equivalent Allowable Emissions: **6,695** lb/hour **1,285.8** tons/year

5. Method of Compliance (limit to 60 characters):

EPA Method 10

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):

Proposed MACT limit. Emissions representative of bagasse firing only.

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **61.8** lb/hour **203.0** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: **0.06 lb/MMBtu** Reference: **Proposed BACT limit**	7. Emissions Method Code: **0**
8. Calculation of Emissions (limit to 600 characters): **Maximum hourly rate: 1,030 MMBtu/hr x 0.06 lb/MMBtu = 61.8 lb/hr** **Annual: 6,767,100 MMBtu/yr x 0.06 lb/MMBtu ÷ 2,000 lb/ton = 203.0 TPY**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions representative of bagasse firing.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.06 lb/MMBtu**	4. Equivalent Allowable Emissions: **61.8** lb/hour **203.0** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 25 or 25A**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Proposed BACT limit. Emissions representative of bagasse firing only.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **SAM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **10.72** lb/hour **12.43** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: **0.0104 lb/MMBtu** Reference: **AP-42**	7. Emissions Method Code: **0**
8. Calculation of Emissions (limit to 600 characters): **3-hour Average: 1,030 MMBtu/hr x 0.0104 lb/MMBtu = 10.72 lb/hr** **Annual: 6,767,100 MMBtu/yr x 0.0037 lb/MMBtu ÷ 2,000 lb/ton = 12.43 TPY**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions representative of bagasse firing.**	

Allowable Emissions Allowable Emissions ______ of ______

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PB**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.039** lb/hour **0.13** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: **3.8×10^{-5} lb/MMBtu** Reference: **Bagasse Analysis**	7. Emissions Method Code: **3**
8. Calculation of Emissions (limit to 600 characters): **3.8×10^{-5} lb/MMBtu x 1,030 MMBtu/hr = 0.039 lb/hr** **3.8×10^{-5} lb/MMBtu x 6,767,100 MMBtu/yr ÷ 2,000 lb/ton = 0.13 TPY**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Emission factor based on bagasse firing only.**	

Allowable Emissions Allowable Emissions ______ of ______

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **H114 (Mercury)**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.0144** lb/hour **0.047** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: **1.4×10^{-5} lb/MMBtu** Reference: **Based on bagasse sampling**	7. Emissions Method Code: **5**

8. Calculation of Emissions (limit to 600 characters):

1.4×10^{-5} lb/MMBtu x 1,030 MMBtu/hr = 0.0144 lb/hr
1.4×10^{-5} lb/MMBtu x 6,767,100 MMBtu/yr ÷ 2,000 lb/ton = 0.047 TPY

9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):

Emissions representative of bagasse firing only.

Allowable Emissions Allowable Emissions ______ of ______

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year

5. Method of Compliance (limit to 60 characters):

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):

. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **Fluorides**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.62** lb/hour **2.03** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: **6×10^{-4} lb/MMBtu** Reference: **Similar Stack Test Data**	7. Emissions Method Code: **0**
8. Calculation of Emissions (limit to 600 characters): **6×10^{-4} lb/MMBtu x 1,030 MMBtu/hr = 0.62 lb/hr**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Based on biomass firing**	

Allowable Emissions Allowable Emissions ______ of ______

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: **20** % Exceptional Conditions: **27** % Maximum Period of Excess Opacity Allowed: **6** min/hour	
4. Method of Compliance: **EPA Method 9**	
5. Visible Emissions Comment (limit to 200 characters): **Rule 62-212.400(5), F.A.C., B.A.C.T. and NSPS Subpart Db.**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units 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 (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram			
	[X] Attached, Document ID: UC-EU1-J1	[ ] Not Applicable	[ ] Waiver Requested
2. Fuel Analysis or Specification			
	[X] Attached, Document ID: UC-EU1-J2	[ ] Not Applicable	[ ] Waiver Requested
3. Detailed Description of Control Equipment			
	[X] Attached, Document ID: UC-EU1-J3	[ ] Not Applicable	[ ] Waiver Requested
4. Description of Stack Sampling Facilities			
	[ ] Attached, Document ID:_______	[X] Not Applicable	[ ] Waiver Requested
5. Compliance Test Report			
	[ ] Attached, Document ID:________		
	[ ] Previously submitted, Date:______________		
	[X] Not Applicable		
6. Procedures for Startup and Shutdown			
	[X] Attached, Document ID: UC-EU1-J6	[ ] Not Applicable	[ ] Waiver Requested
7. Operation and Maintenance Plan			
	[ ] Attached, Document ID:_________	[X] Not Applicable	[ ] Waiver Requested
8. Supplemental Information for Construction Permit Application			
	[ ] Attached, Document ID: PSD Report	[X] Not Applicable	[ ] Waiver Requested
9. Other Information Required by Rule or Statute			
	[ ] Attached, Document ID:_______	[X] Not Applicable	
10. Supplemental Requirements Comment:			

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
    [ ] Attached, Document ID:__________ [X] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
    [ ] Attached, Document ID:________ [X] Not Applicable

13. Identification of Additional Applicable Requirements
    [ ] Attached, Document ID: __________ [X] Not Applicable

14. Compliance Assurance Monitoring Plan
    [ ] Attached, Document ID:________ [X] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

    [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
    Attached, Document ID:________

    [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
    Attached, Document ID:________

    [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
    Attached, Document ID:________

    [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
    Attached, Document ID:________

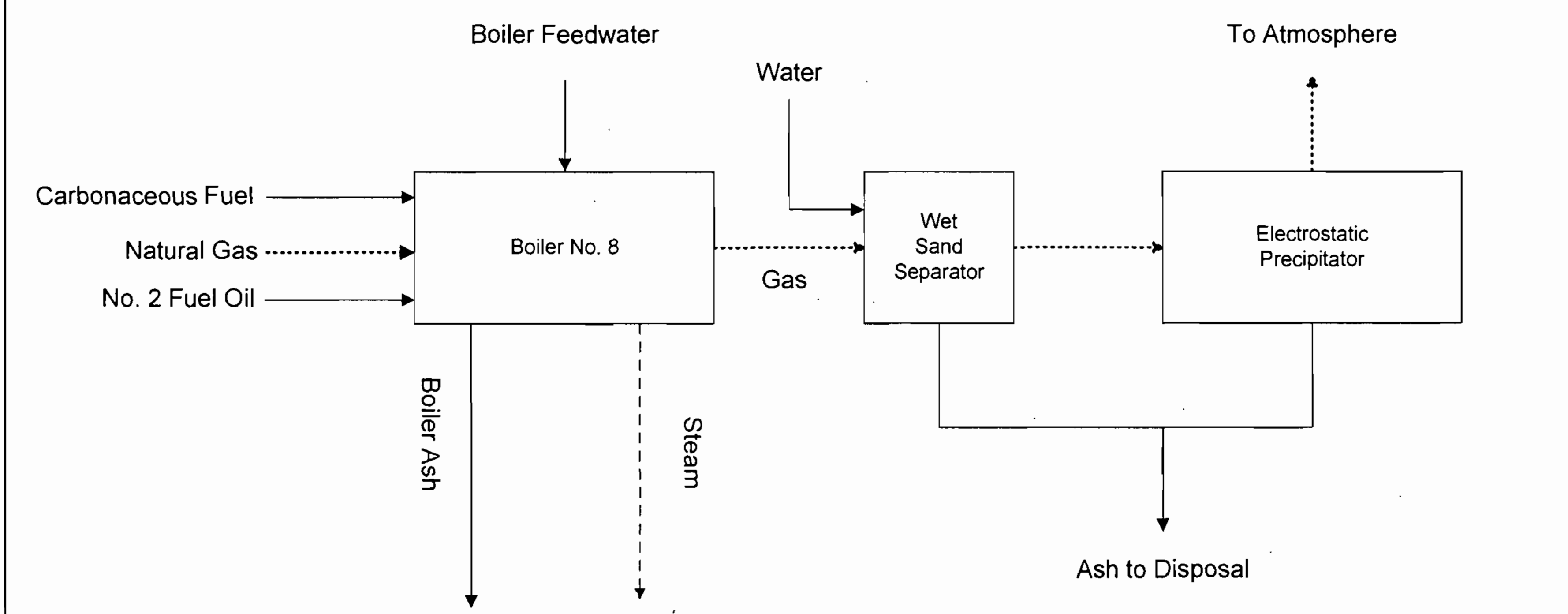
    [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
    Attached, Document ID:________

    [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
    Attached, Document ID:________

    [X] Not Applicable

ATTACHMENT UC-EU1-J1

PROCESS FLOW DIAGRAM



Attachment UC-EU1-J1 Process Flow Diagram U.S. Sugar Corporation Clewiston Mill, Florida	**Process Flow Legend** Solid/Liquid Gaseous Steam	Project Number: 0237619\4\4.4\4.4.1 Filename: UC-EU1-J1.VSD Date: 3/25/03 Golder Associates

ATTACHMENT UC-EU1-J2

FUEL ANALYSIS

Attachment UC-EU1-J2

Boiler No. 8 Fuel Analysis

Parameter	Fuel: Carbonaceous Fuel [a]	Fuel: No. 2 Fuel Oil (0.05% S max)
Density (lb/gal)	--	6.83
Approximate Heating Value (Btu/lb)	3,600 [b]	19,910
Approximate Heating Value (Btu/gal)	--	135,000
Ultimate Analysis (dry basis):		
Carbon	47.6%	84.7%
Hydrogen	6.0%	15.3%
Nitrogen	0.38%	0.015%
Oxygen	42.1%	0.38%
Sulfur	0.03% - 0.07%	0.05%
Ash/Inorganic	2.6% - 5.3%	0.06% [c]
Moisture	49% - 55%	0.51% [c]

Represents typical values.

[a] Source: U.S. Sugar fuel analysis averages.

[b] Wet basis for bagasse.

[c] Source: Perry's Chemical Engineer's Handbook. Sixth Edition, 1984. Represents average fuel characteristics.

ATTACHMENT UC-EU1-J3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

Attachment UC-EU1-J3a
Control Equipment Parameters for Boiler No. 8
at U. S. Sugar Clewiston Mill

WET SAND SEPARATOR

Control Device Type	Wet Cyclone
Manufacturer and Model No.	Custom Design
Flue Gas Temp (°F)	400
Flue Gas Flow Rate (acfm)	450,000
Moisture (% Volume)	24
Cyclone Diameter (ft)	23
Cyclone Height (ft)	38
No. of Spray Nozzles (Cyclone)	3
No. of Spray Nozzles (Inlet Duct)	15
Total Water Flow to Nozzles (gpm)	40

Attachment UC-EU1-J3b
Control Equipment Parameters for Boiler No. 8
U. S. Sugar Clewiston Mill
ELECTROSTATIC PRECIPITATOR

Manufacturer and Model No.	Not yet selected		
Flue Gas Temp (°F)			350
Flue Gas Flow Rate (acfm)			425,000
Moisture (% Volume)			24
No. of Precipitators			1
No. of Chambers			3
No. of Fields per Chamber			3
Total Number of Fields			9
Total Installed Collection Area (ft^2)			TBD
Gas Velocity (ft/s)			3.25
Specific Collection Area (ft^2/1,000 acfm)			TBD
Pollutants	Inlet Loading (lb/hr)	Outlet Loading (lb/hr)	Control Efficiency %
Particulate Matter	1,064	26.8	97.6

Inlet loading calculation:
Uncontrolled: 286,111 lb/hr bagasse / 2,000 lb/ton x 15.6 lb PM/ton = 2,232 lb/hr
Removal efficiency of wet sand separator: 50% (assumed)
Loading to ESP = 2,232 lb/hr x (1-0.50) = 1,116 lb/hr
ESP outlet loading (max) = 26.8 lb/hr (based on 0.026 lb/MMBtu)
ESP efficiency (min) = (1,116 - 26.8) / 1,116 = 97.6%
TBD = To be determined.

ATTACHMENT UC-EU1-J6

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT UC-EU1-J6

CLEWISTON BOILER NO. 8

PROCEDURES FOR STARTUP AND SHUTDOWN

Pursuant to Rule 62-210.700(1), F.A.C., the following procedures and precautions will be taken to minimize the magnitude and duration of excess emissions during startup and shutdown of Boiler No. 8. Boiler room foreman and operating personnel will receive proper training on emissions control procedures.

Cold Startup (approximately 6 to 12 hours)

1. Turn on wet cyclone.
2. Feed clean wood into boiler combustion chamber.
3. Start fire in combustion chamber using a propane torch designed for that purpose, or light a fuel oil or natural gas burner at the lowest rate.
4. Observe the stack plume and adjust if necessary, by adjusting fuel, atomizing air, and combustion air to obtain proper combustion.
5. Feed carbonaceous fuel from the mill to the boiler slowly.
6. Energize electrostatic precipitator (ESP).
7. As the furnace gets hotter and the carbonaceous fuel is burning better, decrease fossil fuel until burners can be turned off.
8. Continue to observe the stack plume, the cyclone water level, and the carbonaceous fuel level, making adjustments to drafts, fuel, cyclone and ESP to maintain optimum operating conditions.
9. Normally, a cold startup will require 6 to 12 hours from the first fire to normal working pressure.

Hot Startup (approximately 1 to 5 hours)

1. This type of startup is applicable when the boiler has been shutdown for a short period of time and is still hot.
2. Turn on wet cyclone
3. Check the boiler and cyclone water levels, and make sure they are functioning properly.
4. Light a fossil fuel burner, continue to observe the stack plume, cyclone water levels, and burners.

5. Feed carbonaceous fuel from the mill to the boiler slowly at first.
6. Energize ESP.
7. As the furnace gets hotter and the carbonaceous fuel is burning better, decrease fossil fuel until burners can be turned off. As the carbonaceous fuel fire gets hot enough to meet steam demand, reduce the fossil fuel supply until it can be turned off. Adjust the dampers to get optimum carbonaceous fuel firing.
8. Continue to observe the stack plume, cyclone water level, and carbonaceous fuel level, making adjustments to drafts, fuel, cyclone and ESP to maintain optimum operating conditions.
9. Normally, a warm startup requires 1 to 5 hours, depending on boiler operating conditions.

Shutdown

1. Stop fuel flow to the boiler, reduce forced draft, distributor air, overfire air, and induced draft.
2. Continue to observe the stack plume and cyclone water levels and make adjustments to maintain safe and optimum operating conditions.
3. After fuel flow is stopped, deactivate ESP and wet cyclone.

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

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).

[X] 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. Regulated or Unregulated Emissions Unit? (Check one)

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

[X] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):

Bagasse Handling System

4. Emissions Unit Identification Number:
ID:

[X] No ID
[ ] ID Unknown

5. Emissions Unit Status Code: **A**	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: **20**	8. Acid Rain Unit? [ ]

9. Emissions Unit Comment: (Limit to 500 Characters)

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method): **Five (5) dust collectors** **Enclosures**	
2. Control Device or Method Code(s): **018, 054**	

Emissions Unit Details

1. Package Unit: Manufacturer:	Model Number:	
2. Generator Nameplate Rating:	MW	
3. Incinerator Information:		
Dwell Temperature:		°F
Dwell Time:		seconds
Incinerator Afterburner Temperature:		°F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:				mmBtu/hr
2. Maximum Incineration Rate:		lb/hr		tons/day
3. Maximum Process or Throughput Rate:		2,995,125	tons	
4. Maximum Production Rate:				
5. Requested Maximum Operating Schedule:				
	24	hours/day	7	days/week
	52	weeks/year	8,760	hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters): Maximum Bagasse Throughput Rate is based on the Maximum Annual Steam Rates for Boiler Nos. 1, 2, 4, 7, and 8.				

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

62.296.320(4)(b): General Visible Emission Standards	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? **DC 1, 2, 3, 4, 5**	2. Emission Point Type Code: **3**
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): **Five (5) dust collectors.**	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	

5. Discharge Type Code: **H**	6. Stack Height: feet	7. Exit Diameter: feet
8. Exit Temperature: **77** °F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %

11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: **40** feet
13. Emission Point UTM Coordinates: Zone: East (km): North (km):	
14. Emission Point Comment (limit to 200 characters): **Nonstack Emission Point Height is based on the average height of the three types of dust collectors. See PSD report for dust collector data.**	

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **Food and Agriculture: Fugitive emissions**		
2. Source Classification Code (SCC): **3-02-888-01**	3. SCC Units: **Tons Product**	
4. Maximum Hourly Rate: **446.81**	5. Maximum Annual Rate: **2,995,125**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): **Segment refers to bagasse throughput for entire bagasse handling system. Hourly rate refers to maximum hourly rate during crop season. Annual rate is based on maximum bagasse usage of Boiler Nos. 1, 2, 4, 7, and 8.**		

Segment Description and Rate: Segment ____ of ____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
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 (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	018		NS
PM_{10}	018		NS

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour **12.93** tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: Reference: **See Comment**	7. Emissions Method Code: **3**
8. Calculation of Emissions (limit to 600 characters): **See Attachment UC-EU2-G8 for calculations.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential Emissions are based on AP-42 factors for the fugitive emissions and manufacturer's information for the dust collectors.**	

Allowable Emissions Allowable Emissions ______ of ______

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour **12.07** tons/year		4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year		
6. Emission Factor: Reference: **See Comment**		7. Emissions Method Code: **3**
8. Calculation of Emissions (limit to 600 characters): **See Attachment UC-EU2-G8 for calculations.**		
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential Emissions are based on AP-42 factors for the fugitive emissions and manufacturer's information for the dust collectors.**		

Allowable Emissions Allowable Emissions ______ of ______

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: **20** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 9**	
5. Visible Emissions Comment (limit to 200 characters): **62.296.320(4)(b), F.A.C.: General Visible Emission Standards.**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units 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 (limit to 200 characters):	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: **VE05**	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: **5** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 9**	
5. Visible Emissions Comment (limit to 200 characters): **62.297.620(4), F.A.C.: Particulate matter compliance test requirement exemption for emission units that have the potential to emit less than 100 TPY and are equipped with a baghouse.**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units 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 (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: UC-EU2-J1 [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [X] Attached, Document ID: UC-EU2-J3 [ ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_______ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:________ [ ] Previously submitted, Date:______________ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: see PSD Report [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_______ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
    [ ] Attached, Document ID:________ [X] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
    [ ] Attached, Document ID:________ [X] Not Applicable

13. Identification of Additional Applicable Requirements
    [ ] Attached, Document ID:________ [X] Not Applicable

14. Compliance Assurance Monitoring Plan
    [ ] Attached, Document ID:________ [X] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

    [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
    Attached, Document ID:________

    [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
    Attached, Document ID:________

    [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
    Attached, Document ID:________

    [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
    Attached, Document ID:________

    [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
    Attached, Document ID:________

    [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
    Attached, Document ID:________

    [X] Not Applicable

ATTACHMENT UC-EU2-G8

EMISSION CALCULATIONS

Attachment UC-EU2-G8a. Maximum Future Crop Season Fugitive Dust Emissions From Bagasse Handling System, U. S. Sugar Clewiston

SOURCE	TYPE OF OPERATION	M MOISTURE CONTENT (a (%)	U WIND SPEED (b (MPH)	UNCONTROLLED PM EMISSION FACTOR (c) (LB/TON)	UNCONTROLLED PM_{10} EMISSION FACTOR (c) (LB/TON)	CONTROL	CONTROL EFFICIENCY (%)	CONTROLLED PM EMISSION FACTOR (LB/TON)	CONTROLLED PM_{10} EMISSION FACTOR (LB/TON)	ACTIVITY FACTOR (d)	MAXIMUM ANNUAL PM EMISSIONS (TONS/YR)	MAXIMUM ANNUAL PM_{10} EMISSIONS (TONS/YR)
BAGASSE HANDLING												
MILL NOS. 6B/7B to NO. 1-A BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	90	0.00023	0.00011	1,427,608 TPY (e)	0.161	0.076
MILL NOS. 4B/5B to NO. 1-B BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	90	0.00023	0.00011	951,739 TPY (e)	0.107	0.051
TANDEM A TO CONVEYOR C1	CONTINUOUS DROP	--	--	--	--	DUST COLLECTOR	--	-- (e)	-- (e)	1,427,608 TPY (e)	1.548 (g)	1.548 (g)
TANDEM B TO CONVEYOR C1	CONTINUOUS DROP	--	--	--	--	DUST COLLECTOR	--	-- (f)	-- (f)	951,739 TPY (e)	1.352 (h)	1.352 (h)
UPPER LEVEL CONVEYOR C1 TO LOWER LEVEL CONVEYOR C1	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	90	0.00023	0.00011	2,379,347 TPY	0.269	0.127
CONVEYOR C1 TO CONVEYOR C4	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	90	0.00023	0.00011	661,440 TPY	0.075	0.035
CONVEYOR C1 TO CONVEYOR C2	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	90	0.00023	0.00011	946,227 TPY	0.107	0.051
CONVEYOR C2 TO CONVEYOR C3	CONTINUOUS DROP	--	--	--	--	DUST COLLECTOR	--	-- (e)	-- (e)	521,520 TPY	1.548 (g)	1.548 (g)
CONVEYOR C3 TO DRAG CONVEYOR #3	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	90	0.00023	0.00011	521,520 TPY	0.059	0.028
UPPER LEVEL DRAG CONV. NO. 3 TO LOWER LEVEL DRAG CONV. NO. 3	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	90	0.00023	0.00011	521,520 TPY	0.059	0.028
DRAG CONVEYOR NO. 3 TO BAGASSE BELT FEEDING OUTSIDE STORAGE	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	90	0.00023	0.00011	227,335 TPY	0.026	0.012
CONVEYOR C4 TO NEW CONVEYOR FEEDING BOILER 8	CONTINUOUS DROP	--	--	--	--	DUST COLLECTOR	--	-- (e)	-- (e)	661,440 TPY	1.548 (g)	1.548 (g)
FRONT-END LOADER TO RECLAIM A/B	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	NONE	0	0.00226	0.00107	227,335 TPY	0.257	0.121
RECLAIM A/B TO TRANSFER BELT CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	NONE	0	0.00226	0.00107	227,335 TPY	0.257	0.121
TRANSFER BELT TO RETURN OUTSIDE BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	90	0.00023	0.00011	227,335 TPY	0.026	0.012
RETURN OUTSIDE BAGASSE BELT CONVEYOR TO CONVEYOR C1	CONTINUOUS DROP	--	--	--	--	DUST COLLECTOR	--	-- (g)	-- (g)	61,380 TPY	0.515 (i)	0.515 (i)
RETURN OUTSIDE BAGASSE BELT CONVEYOR TO CONVEYOR C2	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	90	0.00023	0.00011	106,847 TPY	0.012	0.006
RETURN OUTSIDE BAGASSE BELT CONVEYOR TO CONVEYOR C4	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	90	0.00023	0.00011	59,107 TPY	0.007	0.003
BAGACILLO SYSTEM												
BAGACILLO CYCLONE	POINT SOURCE	--	--	--	--	--	99.999	--	--	106,000 TPY (f)	1.060	1.060
TOTAL											**8.991**	**8.243**

Notes/References

(a) Based on the upper value of the range presented in AP-42 that is applicable for this equation.

(b) Based on meteorological data from Palm Beach International Airport, 1987-1991. Only data for crop season months were used.

(c) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (USEPA, 1995) Section 13.2.4:
E= k x 0.0032 x (U/5)^1.3 / (M/2)^1.4 lb/ton, where k = 0.74 for PM and 0.35 for PM_{10}.

(d) Based on maximum bagasse consumption during the crop season for Boiler Nos. 1, 2, 4, 7 and 8 and bagacillo amount. See Appendix G for maximum bagasse consumption calculations.

(e) 60% of the total produced bagasse is from Tandem A and 40% is from Tandem B.

(f) Based on 40 lb of bagacillo per ton of ground sugar cane and 25,000 tons of cane per day.

(g) Based on 0.02 grains/cfm, 3,550 cfm and 5,088 hours during the crop season.

(h) Based on 0.02 grains/cfm, 3,100 cfm and 5,088 hours during the crop season.

(i) Based on 0.02 grains/cfm, 4,725 cfm and 5,088 hours during the crop season.

Attachment UC-EU2-G8b. Maximum Future Off-Crop Season Fugitive Dust Emissions From Bagasse Handling System, U. S. Sugar

SOURCE	TYPE OF OPERATION	M MOISTURE CONTENT (a) (%)	U WIND SPEED (b) (MPH)	UNCONTROLLED PM EMISSION FACTOR (c) (LB/TON)	UNCONTROLLED PM_{10} EMISSION FACTOR (c) (LB/TON)	CONTROL	CONTROL EFFICIENCY (%)	CONTROLLED PM EMISSION FACTOR (LB/TON)	CONTROLLED PM_{10} EMISSION FACTOR (LB/TON)	ACTIVITY FACTOR	MAXIMUM ANNUAL PM EMISSIONS (TONS/YR)	MAXIMUM ANNUAL PM_{10} EMISSIONS (TONS/YR)
BAGASSE HANDLING												
MILL NOS. 6B/7B to NO. 1-A BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	90	0.00018	0.00008	0 TPY	0.000	0.000
MILL NOS. 4B/5B to NO. 1-B BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	90	0.00018	0.00008	0 TPY	0.000	0.000
TANDEM A TO CONVEYOR C1	CONTINUOUS DROP	--	--	--	--	DUST COLLECTOR	--	--	--	0 TPY	0.000	0.000
TANDEM B TO CONVEYOR C1	CONTINUOUS DROP	--	--	--	--	DUST COLLECTOR	--	--	--	0 TPY	0.000	0.000
UPPER LEVEL CONVEYOR C1 TO LOWER LEVEL CONVEYOR C1	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	90	0.00018	0.00008	163,503 TPY	0.015	0.007
CONVEYOR C1 TO CONVEYOR C4	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	90	0.00018	0.00008	0 TPY	0.000	0.000
CONVEYOR C1 TO CONVEYOR C2	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	90	0.00018	0.00008	0 TPY	0.000	0.000
CONVEYOR C2 TO CONVEYOR C3	CONTINUOUS DROP	--	--	--	--	DUST COLLECTOR	--	-- (g)	-- (g)	0 TPY	1.117 (g)	1.117 (g)
CONVEYOR C3 TO DRAG CONVEYOR #3	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	90	0.00018	0.00008	0 TPY	0.000	0.000
UPPER LEVEL DRAG CONV. NO. 3 TO LOWER LEVEL DRAG CONV. NO. 3	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	90	0.00018	0.00008	0 TPY	0.000	0.000
DRAG CONVEYOR NO. 3 TO BAGASSE BELT FEEDING OUTSIDE STORAGE	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	90	0.00018	0.00008	75,643 TPY	0.007	0.003
CONVEYOR C4 TO NEW CONVEYOR FEEDING BOILER 8	CONTINUOUS DROP	--	--	--	--	DUST COLLECTOR	--	-- (g)	-- (g)	286,416 TPY	1.117 (g)	1.117 (g)
FRONT-END LOADER TO RECLAIM A/B	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	NONE	0	0.00178	0.00084	75,643 TPY	0.067	0.032
RECLAIM A/B TO TRANSFER BELT CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	NONE	0	0.00178	0.00084	75,643 TPY	0.067	0.032
TRANSFER BELT TO RETURN OUTSIDE BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	90	0.00018	0.00008	75,643 TPY	0.007	0.003
RETURN OUTSIDE BAGASSE BELT CONVEYOR TO CONVEYOR C1	CONTINUOUS DROP	--	--	--	--	DUST COLLECTOR	--	-- (h)	-- (h)	163,503 TPY (d)	1.487 (h)	1.487 (h)
RETURN OUTSIDE BAGASSE BELT CONVEYOR TO CONVEYOR C2	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	90	0.00018	0.00008	306,510 TPY (e)	0.027	0.013
RETURN OUTSIDE BAGASSE BELT CONVEYOR TO CONVEYOR C4	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	90	0.00018	0.00008	286,416 TPY (f)	0.025	0.012
BAGACILLO SYSTEM												
BAGACILLO CYCLONE	POINT SOURCE	--	--	--	--	--	99.999	--	--	0 TPY	0.000	0.000
TOTAL											3.937	**3.824**

Notes/References

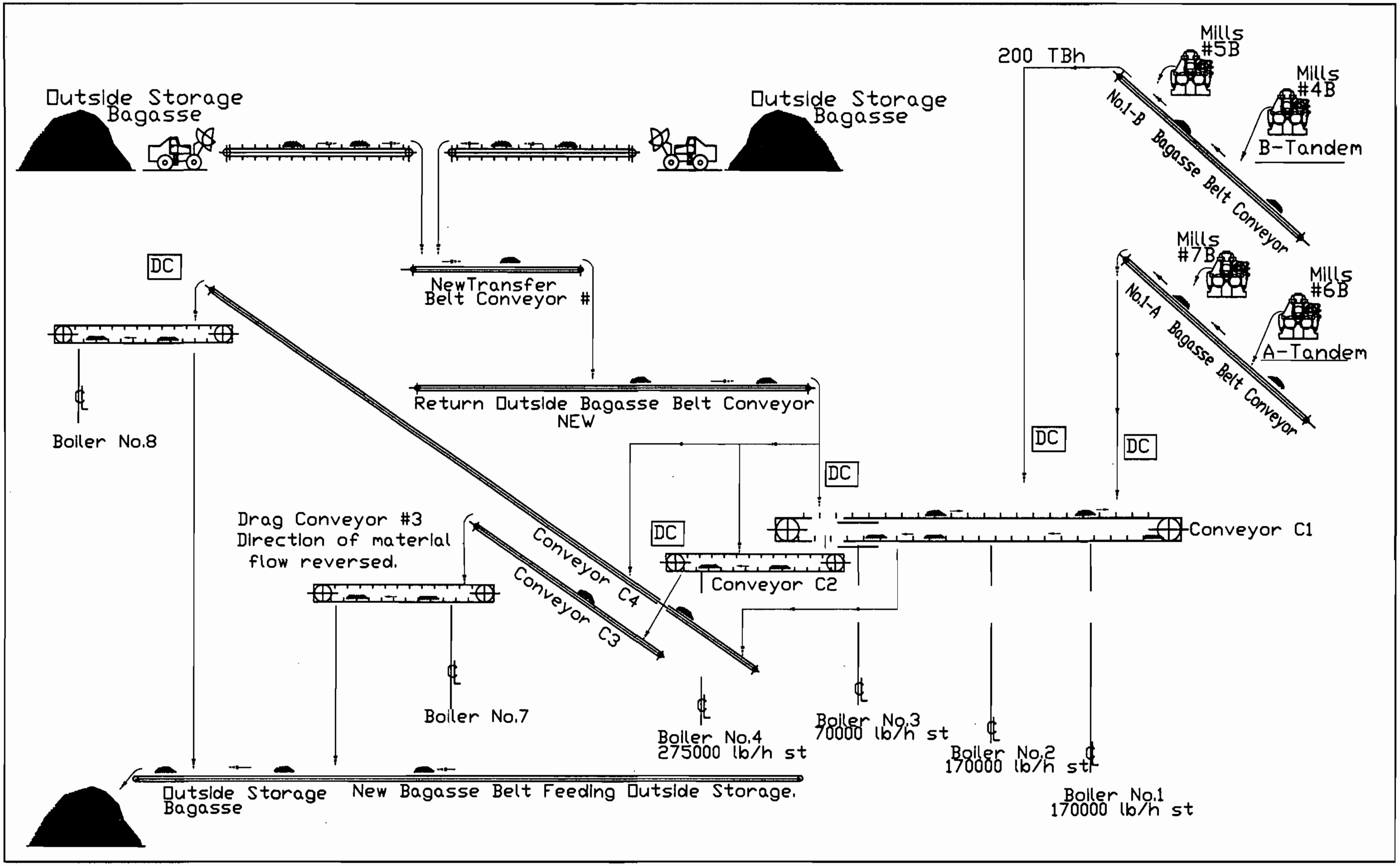
(a) Based on the upper value of the range presented in AP-42 that is applicable for this equation.
(b) Based on meteorological data from Palm Beach International Airport, 1987-1991. Only data for off-crop season months were used.
(c) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (USEPA, 1995) Section 13.2.4:
E= k x 0.0032 x (U/5)^1.3 / (M/2)^1.4 lb/ton, where k = 0.74 for PM and 0.35 for PM_{10}.
(d) Based on maximum bagasse consumption during the off crop season for Boiler Nos. 1 and 2. See Appendix G for maximum bagasse consumption calculations.
(e) Based on maximum bagasse consumption during the off crop season for Boiler No. 4. See Appendix G for maximum bagasse consumption calculations.
(f) Based on maximum bagasse consumption during the off crop season for Boiler No. 8. See Appendix G for maximum bagasse consumption calculations.
(g) Based on 0.02 grains/cfm, 3,550 cfm and 3,672 hours during the crop season.
(h) Based on 0.02 grains/cfm, 4,725 cfm and 3,672 hours during the crop season.

Attachment UC-EU2-G8c. Current, Future, and Increase in Fugitive Dust Emissions from Bagasse Handling System, U. S. Sugar Clewiston

Pollutant	Future Annual Emissions (TPY)		
	Crop Season	Off-Crop Season	Total
BAGASSE HANDLING SYSTEM			
PM	8.991	3.937	12.928
PM_{10}	8.243	3.824	12.067

ATTACHMENT UC-EU2-J1

PROCESS FLOW DIAGRAM



Attachment UC-EU2-J1. Future Bagasse Handling Conveyor System
After addition of Boiler 8

ATTACHMENT UC-EU2-J3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT UC-EU2-J3

CONTROL EQUIPMENT

BAGASSE HANDLING SYSTEM

Five dust collectors will be installed for particulate control in the bagasse handling system.

	Dust Collector 1	Dust Collector 2	Dust Collector 3	Dust Collector 4	Dust Collector 5
Manufacturer	Prime Systems Inc. [a]	Prime Systems Inc. [a]	Prime Systems Inc. [a]	Prime Systems Inc. [a]	Prime Systems Inc. [a]
Model Number	BV-6X8-120 [a]	BV-6X7-120 [a]	BV-8X8-120 [a]	BV-6X8-120 [a]	BV-6X8-120 [a]
Inlet Gas Temp	Ambient	Ambient	Ambient	Ambient	Ambient
Inlet Gas Flow	3,550 CFM	3,100 CFM	4,725 CFM	3,550 CFM	3,550 CFM
Control Efficiency	99.99% for >4 microns	99.99% for >4 microns	99.99% for >4 microns	99.99% for >4 microns	99.99% for >4 microns

[a] U.S. Sugar may install an equivalent dust collector.

PSD REPORT

PSD PERMIT APPLICATION
FOR
UNITED STATES SUGAR CORPORATION

CLEWISTON BOILER NO. 8

Prepared For:
United States Sugar Corporation
Clewiston, Florida

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

March 2003

0237619

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1.0 INTRODUCTION AND EXECUTIVE SUMMARY

United States Sugar Corporation (U.S. Sugar) owns and operates a sugar mill and sugar refinery located in Clewiston, Florida, Hendry County. U.S. Sugar is proposing to construct and operate a new bagasse-fired boiler (Boiler No. 8) at the mill in order to provide steam to the sugarcane processing and raw sugar refining operations. Boiler No. 8 will fire bagasse as its primary fuel, with ultra-low sulfur No. 2 fuel oil and natural gas used for startup, shutdown and as a supplementary fuel.

Boiler No. 8 will be designed to produce 550,000 pounds per hour (lb/hr) steam as a 1-hour average, and 500,000 lb/hr steam as a daily 24-hour average. The new boiler will be permitted to operate up to 365 days per calendar year [8,760 hours per year (hr/yr)]. However, the maximum annual steam production will be limited to a 75 percent annual capacity factor. As part of the proposed project, existing bagasse-fired Boiler No. 3 will be shutdown.

The additional steam generated by the new boiler will be used to process sugarcane at a faster rate through the sugar mill, thereby reducing the number of crop days otherwise required to process the sugarcane. The additional steam will also be used during the crop season to allow the sugar refinery to achieve its potential production capacity. Currently, the sugar refinery is steam limited during the crop season, when the sugar mill has the priority for steam demand, and cannot achieve its maximum production capacity.

This application contains the technical information developed in accordance with Prevention of Significant Deterioration (PSD) regulations as promulgated by the U.S. Environmental Protection Agency (EPA) and implemented through delegation to the Florida Department of Environmental Protection (FDEP). It presents an evaluation of regulated pollutants subject to PSD review, a demonstration of Best Available Control Technology (BACT), and an assessment of potential air quality impacts associated with the Project. Through this application, U.S. Sugar requests that the FDEP issue a PSD construction permit for this project.

1.1 PREVENTION OF SIGNIFICANT DETERIORATION (PSD) REQUIREMENTS

The permitting of this project in Florida requires an air construction permit and PSD review approval. The project will be a modification to an existing air emission source in Hendry County. The EPA has implemented regulations requiring PSD review for new or modified sources that increase air emissions above certain threshold amounts. PSD regulations are promulgated under Title 40 of the Code of Federal Regulations (CFR), Part 52.21, and are implemented in Florida through delegation to the FDEP. FDEP has adopted the EPA PSD regulations as Rule 62-212.400, Florida Administrative Code (F.A.C.).

The PSD applicability for the project is summarized in Table 1-1. Based on the net emissions increase due to the proposed project, a 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),
- Volatile organic compounds (VOC), and
- Sulfuric acid mist (SAM).

Hendry County has been designated as an attainment or unclassifiable area for all criteria pollutants. The county is also classified as a PSD Class II area for PM_{10}, SO_2, and NO_2; therefore, the new source review will follow PSD regulations pertaining to such designations.

1.2 BEST AVAILABLE CONTROL TECHNOLOGY (BACT) ANALYSIS

For the proposed Boiler No. 8, a BACT analysis was conducted for each pollutant for which the net increase exceeds the EPA/FDEP significance emission rate and, is therefore, subject to BACT review. The proposed BACT to control PM/PM_{10} emissions from Boiler No. 8 is a wet cyclone followed by an electrostatic precipitator (ESP), which limits PM/PM_{10} emissions to 0.026 pounds per million British thermal units (lb/MMBtu) of heat input to the boiler. NO_x, CO, and VOC emissions will be controlled by good combustion practices. SO_2 emissions are controlled by the inherent low sulfur content of bagasse fuel, by use of low sulfur auxiliary fuels, and by limiting the annual usage of auxiliary fuels.

1.3 AIR QUALITY ANALYSIS

An air quality impact analysis was conducted to determine if the proposed modification would cause or contribute to a violation of any national or Florida Ambient Air Quality Standard (AAQS) or allowable PSD increment. It was demonstrated that emissions from Boiler No. 8 operating year-around would not result in ambient concentrations above the AAQS or the PSD Class II and Class I allowable increments. As a result, the project will not cause or contribute to any adverse impacts on air quality. Additional impacts due to the proposed project on soils, vegetation, visibility, and air quality related values (AQRVs) were analyzed and found to be not adverse.

1.4 HAZARDOUS AIR POLLUTANTS

Based on available information, the proposed Boiler No. 8 will not constitute a major source of hazardous air pollutants (HAPs). As a result, the boiler will not be subject to maximum achievable control technology (MACT) regulations for new industrial boilers. These regulations have recently been proposed by EPA in the Federal Register (January 13, 2003).

1.5 SUMMARY OF ANALYSIS

Results from the analyses presented in this PSD Air Permit application lead to the following conclusions.

- The proposed BACT for each applicable pollutant provides the maximum degree of emissions reduction based on energy, environmental, and economic impacts and technical feasibility.
- National Ambient Air Quality Standards will not be exceeded as a result of the operation of the proposed modification.
- Applicable PSD increments will not be exceeded as a result of the operation of the proposed modification.
- No adverse effects upon soils, vegetation, visibility or AQRVs in the PSD Class I area are predicted.

As documented in this application, the proposed project will be designed to operate in compliance with all applicable state and federal air quality rules and regulations.

1.6 AIR PERMIT APPLICATION ORGANIZATION

This air permit application is divided into eight major sections, including this introduction and summary section:

- Section 2.0 presents a description of the project, including air emissions and stack parameters;

- Section 3.0 provides a review of the state and federal air quality regulations applicable to the proposed project;
- Section 4.0 presents the control technology review and BACT analysis;
- Section 5.0 presents 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 project with AAQS, PSD increments, and good engineering practice (GEP) stack height regulations;.
- Section 7.0 provides the additional impact analyses for soils, vegetation, and visibility.

Table 1-1. PSD Source Applicability Analysis for Proposed Boiler No. 8, U. S. Sugar Corporation, Clewiston Mill

Regulated Pollutant	Baseline Emissions[a] (TPY)	Future Potential Emissions: Boiler No. 8 (TPY)	Future Potential Emissions: Other Sources (TPY)	Future Potential Emissions: Total (TPY)	Net Change in Emissions (TPY)	PSD Significant Emission Rate (TPY)	PSD Review Triggered?
Particulate Matter (Total)	63.88	87.97	34.33	122.30	58.42	25	Yes
Particulate Matter (PM_{10})	59.19	87.97	33.47	121.44	62.25	15	Yes
Sulfur Dioxide	47.56	203.01	1.25	204.26	156.70	40	Yes
Nitrogen Oxides	55.59	744.38	13.14	757.52	701.93	40	Yes
Carbon Monoxide	1,244.18	1,285.75	13.14	1,298.89	54.71	100	No
VOC	54.82	203.01	19.38	222.39	167.57	40	Yes
Sulfuric Acid Mist	2.91	12.43	0.08	12.51	9.60	7	Yes
Lead	0.0076	0.129	--	0.129	0.12	0.6	No
Mercury	0.0027	0.047	--	0.047	0.04	0.1	No
Fluorides	1.20	2.03	--	2.03	0.83	3	No

TSP = Total Suspended Particles

PM_{10} = Particulate Matter with aerodynamic diameter less than or equal to 10 microns

VOC = Volatile Organic Compounds

[a] Baseline emissions from Boiler No. 3, the sugar refinery and the bagasse handling system.

2.0 PROJECT DESCRIPTION

2.1 SITE DESCRIPTION

U.S. Sugar owns and operates a raw sugar mill and sugar refinery located in Clewiston, Hendry County, Florida. U.S. Sugar is proposing to construct and operate a new bagasse-fired boiler (Boiler No. 8) at the mill in order to provide steam to the sugarcane processing operations and raw sugar refining operations.

The Clewiston sugar mill receives sugarcane by train from nearby cane fields and processes it into raw sugar. The cane is first cut into small pieces, and is then passed through a series of presses (mills) where the sugar cane juices are squeezed from the cane. The fibrous byproduct material remaining is called bagasse, and is burned in on-site steam boilers for fuel.

The cane juice is further processed and purified through a series of steps involving clarification, separation, evaporation and crystallization. The final product is raw, unrefined sugar. U.S. Sugar began operating an on-site sugar refinery in 1997, wherein raw sugar is refined into white sugar suitable for human consumption. Steam is also used in the raw sugar refining process. Both raw and refined sugar is shipped offsite to customers. Refer to Attachment UC-FI-C3 of the permit application form for a flow diagram of the overall sugar production process.

The Clewiston mill currently consists of five bagasse/oil-fired boilers (Boiler Nos. 1, 2, 3, 4, and 7), which provide steam to the sugar mill and refinery. The primary fuel for all boilers is bagasse, while fuel oil is used for startup, shutdown, malfunction, and as a supplemental fuel. For economic reasons, fuel oil burning is minimized to the extent possible.

All boilers have wet scrubbers for particulate matter (PM) control, except for Boiler No. 7, which has a wet mechanical separator followed by an electrostatic precipitator (ESP) control device. Currently, Boiler Nos. 1, 2, 3, 4 and 7 have no limitations on annual operating hours. However, the boilers do have certain restrictions on operation during the off-season. During the sugarcane milling off-season (typically June through September), Boiler No. 7 must be operated as the primary unit to meet the demands of the sugar refinery. The other mill boilers may serve as backup units when Boiler No. 7 is shutdown for maintenance, repair or during periods of unusually low steam demand. Boiler No. 4 annual operation is also limited to 2,880,000 million British thermal units per year (MMBtu/yr) heat

3.0 AIR QUALITY REVIEW REQUIREMENTS AND APPLICABILITY

Federal and state air regulatory requirements for a new source of air pollution are discussed in Sections 3.1 to 3.4. The applicability of these regulations to the proposed Boiler No. 8 is presented in Section 3.5. These regulations must be satisfied before the proposed project can be approved.

3.1 NATIONAL AND STATE AAQS

The existing applicable national and Florida Ambient Air Quality Standards (AAQS) are presented in Table 3-1. Primary national AAQS were promulgated to protect the public health, 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 violation of AAQS are designated as nonattainment areas, and new sources to be located in or near these areas may be subject to more stringent air permitting requirements.

Florida has adopted state AAQS in Rule 62-204.240. These standards are the same as the national AAQS, except in the case of SO_2. For SO_2, Florida has adopted the former 24-hour secondary standard of 260 $\mu g/m^3$, and former annual average secondary standard of 60 $\mu g/m^3$.

3.2 PREVENTION OF SIGNIFICANT DETERIORATION (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. Florida's State Implementation Plan (SIP), which contains PSD regulations, has been approved by EPA; therefore, PSD approval authority has been granted to the Florida Department of Environmental Protection (FDEP).

A "major facility" is defined as any one of 28 named source categories that have the potential to emit 100 tons per year (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. Once a new source is determined to be a "major facility" for a particular pollutant, any pollutant emitted in amounts greater than the PSD significant emission rates is subject to PSD review. For an existing source for which a modification is proposed, the modification is subject to PSD review if the net increase in emissions due to the modification is greater than the PSD significant emission rates. The PSD significant emission rates are shown in Table 3-2.

EPA has promulgated as regulations limits to increases above an air quality baseline concentration level of SO_2, PM_{10}, and NO_2 concentrations that would constitute significant deterioration. The EPA class designations and allowable PSD increments are presented in Table 3-1. The magnitude of the allowable increment depends on the classification of the area in which a new source (or modification) will be located or have an impact. Three classifications are designated based on criteria established in the Clean Air Act Amendments. Congress promulgated areas as Class I (international parks, national wilderness areas, and memorial parks larger than 5,000 acres, and national parks larger than 6,000 acres) or as Class II (all areas not designated as Class I). No Class III areas, which would be allowed greater deterioration than Class II areas, were designated. The State of Florida has adopted the EPA class designations and allowable PSD increments for SO_2, PM_{10}, and NO_2 increments.

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 52.21, Prevention of Significant Deterioration of Air Quality. The State of Florida has adopted the federal PSD regulations by reference (Rule 62-212.400, F.A.C.). Major facilities and major modifications are required to undergo the following analysis related to PSD for each pollutant emitted in significant amounts:

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 new facility also must be reviewed with respect to Good Engineering Practice (GEP) stack height regulations. 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 Best Available Control Technology (BACT) be applied to control emissions from the source. The BACT requirements are applicable to all regulated pollutants for which the increase in emissions from the facility exceeds the significant emission rate (see Table 3-2).

BACT is defined in 40 CFR 52.21 (b)(12), as:

> An emissions limitation (including a visible emission standard) based on the maximum degree of reduction of each pollutant subject to regulation under the Act which would be emitted by any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts, and other costs, 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 such pollutant. 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 and 61. If the Administrator determines that technological or economic limitations on the application of measurement methodology to a particular part of a source 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 and shall provide for compliance by means, which achieve equivalent results.

BACT was promulgated within the framework of the PSD requirements 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 EPA's *Guidelines for Determining Best Available Control Technology (BACT)* (EPA, 1978) and in the *PSD Workshop Manual* (EPA, 1980). These guidelines were promulgated 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. In addition, through implementation of these guidelines, 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 PSD Workshop Manual has been 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 emissions limit 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 to use 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 on 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). This document has not yet been issued as final guidance or as rule. EPA has also published the document entitled *OAQPS Cost Control Manual* (EPA, 1996) to assist industry and regulators is estimating capital and annual costs of pollution control equipment.

3.2.3 SOURCE IMPACT ANALYSIS

A source impact analysis must be performed for a proposed major source or major modification subject to PSD review, and for each pollutant for which the increase in emissions exceeds the PSD 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. 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* (EPA, 199?).

To address compliance with AAQS and PSD Class II increments, a source impact analysis must be performed for the criteria pollutants. However, this analysis is not required for a specific pollutant if the net increase in impacts as a result of the new source or modification is below significant impact levels, as presented in Table 3-1. The significant impact levels are threshold levels that are used to determine the level of air impact analyses needed for the project. If the new or modified source's impacts are predicted to be less than significant, then the source's impacts are assumed not to have a significant adverse affect on air quality and additional modeling with other sources is not required. However, if the source's impacts are predicted to be greater than the significant impact levels, additional modeling with other sources is required to demonstrate compliance AAQS and PSD increments.

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

• SO_2	3-hour	-	1 µg/m^3
	24-hour	-	0.2 µg/m^3
	Annual	-	0.1 µg/m^3
• PM_{10}	24- hour	-	0.3 µg/m^3
	Annual	-	0.2 µg/m^3
• NO_2	Annual	-	0.1 µg/m^3

Although these levels have not been officially promulgated as part of the PSD review process and may not be binding for states in performing PSD review, the proposed levels serve as a guideline in assessing a source's impact in a Class I area. The EPA action to incorporate Class I significant impact levels in the PSD process is part of implementing NSR provisions of the 1990 CAA Amendments. Because the process of developing the regulations will be lengthy, EPA believes that the proposed rules concerning the significant impact levels is appropriate in order to assist states in implementing the PSD permit process.

Various lengths of record for meteorological data can be used for impact analysis. A 5-year period is normally used with corresponding evaluation of highest, second-highest short-term concentrations for comparison to AAQS or PSD increments. The meteorological data are selected based on an evaluation of measured weather data from a nearby weather station that represents weather conditions at the project site. The criteria used in this evaluation include determining the distance of the project site to the weather station; comparing topographical and land use features between the locations; and determining availability of necessary weather parameters. The selection of the weather data is normally discussed with and approved by the regulatory agency reviewing the air permit application prior to initiating air modeling.

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 important 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" evolves from federal and state PSD regulations and 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 exists 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_{10} 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 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_{10} 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_{10}, 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_{10}, and February 8, 1988, for NO_2.

3.2.4 AIR QUALITY MONITORING REQUIREMENTS

In accordance with requirements of 40 CFR 52.21(m), 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 or major modification. For a new major facility, the affected pollutants are those that the facility potentially would emit in significant amounts. For a major modification, the pollutants are those for which the net emissions increase exceeds the significant emission rate (see Table 3-2).

Ambient air monitoring for a period of up to 1 year generally is appropriate to satisfy the PSD monitoring requirements. A minimum of 4 months of data is 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 EPA's *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 Florida DEP may exempt a proposed major stationary facility or major modification from the monitoring requirements with respect to a particular pollutant if the emissions increase of the pollutant from the facility or modification would cause, in any area, air quality impacts less than the *de minimis* levels presented in Table 3-2.

3.2.5 SOURCE INFORMATION/GOOD ENGINEERING PRACTICE STACK HEIGHT

Source information must be provided to adequately describe the proposed project. The general type of information required for this project is presented in Section 2.0.

The 1977 CAA Amendments require that the degree of emission limitation required for control of any pollutant 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). The Florida DEP has adopted identical regulations (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:

   $Hg = H + 1.5L$

   where:
   - Hg = 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 five times the lesser of the height or width dimensions of a structure or terrain feature, but not greater than 0.8 kilometer (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 [40 CFR 52.21(o); Rule 62-212.400]. These analyses are to be conducted primarily for PSD Class I areas. 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 (Table 3-2).

3.3 NONATTAINMENT RULES

Based on the current nonattainment provisions, all major new facilities and modifications to existing major facilities located in a nonattainment area must undergo nonattainment review. A new major facility is required to undergo this review if the proposed pieces of equipment have the potential to emit 100 TPY or more of the nonattainment pollutant.

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 CAA Amendments of 1977, 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." The NSPS are codified in 40 CFR Part 60. For Boiler No. 8, the NSPS Subpart Db for Industrial/Commercial/Institutional Boilers is potentially applicable.

3.4.2 FLORIDA RULES

FDEP regulations for existing carbonaceous fuel burning equipment are contained in Rule 62-296.410. These rules require that carbonaceous fuel burning equipment meet a PM emission limit of 0.2 lb/MMBtu. Opacity is limited to 30 percent (6-minute average), with up to 40 percent allowed for up to 2 minutes per hour.

3.5 PSD APPLICABILITY

3.5.1 AREA CLASSIFICATION

The project site is located in Hendry County, which has been designated by EPA and FDEP as an attainment area for all criteria pollutants. Hendry County and surrounding counties are designated as PSD Class II areas for SO_2, PM(TSP), and NO_2. The nearest Class I area to the site is the Everglades National Park (ENP), located about 102 km (60 miles) south of the Clewiston Mill site.

3.5.2 PSD REVIEW

Pollutant Applicability

The existing U.S. Sugar Clewiston Mill is considered to be a "major existing facility" because the annual emissions of several regulated pollutants from the mill are greater than 250 TPY. Therefore, PSD review is required for any modification, which results in a net increase in emissions greater than the PSD significant emission rates.

The PSD applicability for the proposed modification is presented in Table 3-3. As described previously, Boiler No. 3 will be shutdown as part of the proposed project. In addition, Boiler No. 8 will allow the sugar refinery to operate at a higher rate during the crop season, and throughput of the bagasse handling system will increase. Therefore, the sugar refinery and the bagasse handling system will be "affected" by the proposed project. Baseline emissions for these sources are summarized in Table 3-3.

Baseline emission calculations for Boiler No. 3 are presented in Appendix B. The current annual emissions are based on the last two years (2001-2002) of actual operation (heat input due to bagasse and fuel oil). Refer to the footnotes in Appendix B for the basis of the emission factors for Boiler No. 3.

Also presented in Appendix B are the current actual emissions (2001-2002) from the sugar refinery at Clewiston. The potential maximum emissions from the sugar refinery are also shown in Appendix B.

The current actual emissions (2001-2002) for the bagasse handling system are presented in Appendix G. The potential emissions from the system were previously described in Section 2.4.

As shown in Table 3-3, the potential increase in emissions due to the proposed modification exceeds the PSD significant emission rates for PM, PM_{10}, SO_2, NO_x, VOC and SAM. As a result, PSD review applies for these pollutants.

Source Impact Analysis

A source impact analysis was performed for PM_{10}, SO_2 and NO_x emissions resulting from the proposed modification. An analysis was also performed for CO emissions due to the potential increase in short-term CO emissions from Boiler No. 8. As shown in Section 6.0, the predicted increase in impacts due to the proposed modification are predicted to be below the significant impact levels for all pollutants. As a result, a modeling analysis incorporating the impacts from other sources is not required for these pollutants.

Emission Standards

The applicable emission limit for PM for Boiler No. 8 is 0.2 lb/MMBtu of heat input (Rule 62-296.410). The proposed PM emission rate of 0.026 lb/MMBtu for Boiler No. 8 will comply with the specified limit.

The NSPS for Industrial Boilers, 40 CFR 60, Subpart Db, will also be applicable to Boiler No. 8. Under Subpart Db, there is no emission limit for PM or SO_2 for boilers firing very low sulfur fuel oil (i.e., fuel oil with sulfur content not greater than 0.5 percent by weight). The applicable opacity standard is contained in 40 CFR 60.43b(f), and is 20 percent opacity (6-minute average), except 27 percent opacity is allowed for one 6-minute period per hour. The opacity limit will apply any time that fuel oil is being fired in Boiler No. 8.

Subpart Db contains NO_x emission standards for fossil fuel firing and wood firing. No standards are applicable to bagasse firing. Subpart Db also contains an exemption from the NO_x standard for fossil fuel firing provided that fossil fuel firing does not exceed a 10 percent annual capacity factor for the unit [40 CFR 60.44b(l)(1)]. As described previously, fossil fuel firing for Boiler No. 8 will be limited to a 10 percent annual capacity factor. Therefore, no NO_x limit under Subpart Db will be applicable to the proposed Boiler No. 8.

Subpart Db also contains continuous opacity monitoring requirements for any unit subject to the opacity standard under 60.43b(f) [refer to 63.48b(a)]. However, 40 CFR 60, Subpart A, General Provisions, allows an alternative monitoring plan to be approved by the Administrator. U.S. Sugar is proposing an alternative opacity monitoring plan for Boiler No. 8, in lieu of continuous opacity monitoring. The proposed plan is contained in Appendix H. The proposed plan is identical to the alternative opacity monitoring plan now approved for Boiler No. 7 at the Clewiston Mill.

Boiler No. 8 will comply with all other applicable provisions of Subpart Db. Refer to the air permit application form for a listing of applicable regulations.

Ambient Monitoring

Based on the increase in emissions from the proposed modification (see Table 3-3), a pre-construction ambient monitoring analysis is required for PM_{10}, SO_2, NO_2 and VOC, and monitoring data are required to be submitted as part of the application. However, if the net increase in impacts of a pollutant is less than the applicable *de minimis* monitoring concentration, then an exemption from submittal of pre-construction ambient monitoring data may be obtained [40 CFR 52.21(i)(8)]. In addition, if EPA has not established an acceptable ambient monitoring method for the pollutant, monitoring is not required.

Pre-construction monitoring data for PM_{10}, SO_2 and NO_2 are not required to be submitted for this project because, as shown in Table 3-4, the proposed modification's impacts are predicted to be below the applicable *de minimis* monitoring concentration for these pollutants (see Table 3-2). A pre-construction ambient monitoring analysis is required for VOC. This analysis is presented in Section 4.0.

GEP Stack Height Impact Analysis

The GEP stack height regulations allow any stack to be at least 65 m [213 feet (ft)] high. The Boiler No. 8 stack will be 199 feet high. The GEP stack height for Boiler No. 8 is calculated as 233 ft, based on building structures influencing the boiler (refer to Section 6.0). This stack height does not exceed the *de minimis* GEP stack height. However, as discussed in Section 6.0, Air Quality Modeling, 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 Boiler No. 8 emissions caused by nearby structures is included in the modeling analysis.

3.5.3 NONATTAINMENT REVIEW

The project site is located in Hendry County, which is classified as an attainment area for all criteria pollutants. Therefore, nonattainment requirements are not applicable.

Table 3-1. National and State AAQS, Allowable PSD Increments, and Significant Impact Levels ($\mu g/m^3$)

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

Note: NA = Not applicable, i.e., no standard exists.

PM_{10} = particulate matter with aerodynamic diameter less than or equal to 10 micrometers.

[a] On July 18, 1997, the 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 $\mu g/m^3$ (3-year average of 98th percentile) and an annual standard of 15 $\mu g/m^3$ (3-year average at community monitors). Implementation of these standards has not yet occurred. The ozone standard was modified to be 0.08 ppm for 8-hour average; achieved when 3-year average of 99th percentile is 0.08 ppm or less. The FDEP has not yet adopted these standards.

[b] Short-term maximum concentrations are not to be exceeded more than once per year except for the PM_{10} AAQS (these do not apply to significant impact levels). The PM_{10} 24-hour AAQS is attained when the expected number of days per year with a 24-hour concentration above 150 $\mu g/m^3$ is equal to or less than 1. For modeling purposes, compliance is based on the sixth highest 24-hour average value over a 5-year period.

[c] Achieved when the expected number of days per year with concentrations above the standard is fewer than 1.

[d] Maximum concentrations.

Sources: Federal Register, Vol. 43, No. 118, June 19, 1978. 40 CFR 50. 40 CFR 52.21. Rule 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	NA
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
Beryllium	NESHAP	0.0004	0.001, 24-hour
Asbestos	NESHAP	0.007	NM
Vinyl Chloride	NESHAP	1	15, 24-hour
MWC Organics	NSPS	3.5×10^{-6}	NM
MWC Metals	NSPS	15	NM
MWC Acid Gases	NSPS	40	NM
MSW Landfill Gases	NSPS	50	NM

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

NA = Not applicable.
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.
MWC = Municipal waste combustor.
MSW = Municipal solid waste.

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

Sources: 40 CFR 52.21.
Rule 62-212.400.

Table 3-3. Boiler No. 8 PSD Source Applicability Analysis, U. S. Sugar, Clewiston

	Baseline Emissions [a]				Future Potential Emissions						
Regulated Pollutant	Boiler No. 3 (TPY)	Fugitive Emissions[b] (TPY)	Sugar Refinery (TPY)	Total (TPY)	Boiler No. 8 (TPY)	Fugitive Emissions[b] (TPY)	Sugar Refinery (TPY)	Total (TPY)	Net Change In Emissions Due to Proposed Project (TPY)	PSD Significant Emission Rate (TPY)	PSD Review Triggered?
Particulate Matter (Total)	48.09	2.59	13.20	63.88	87.97	12.93	21.40	122.30	58.42	25	Yes
Particulate Matter (PM_{10})	44.48	1.65	13.06	59.19	87.97	12.07	21.40	121.44	62.25	15	Yes
Sulfur Dioxide	46.81	--	0.75	47.56	203.01	--	1.25	204.26	156.70	40	Yes
Nitrogen Oxides	47.72	--	7.87	55.59	744.38	--	13.14	757.52	701.93	40	Yes
Carbon Monoxide	1,236.31	--	7.87	1,244.18	1,285.75	--	13.14	1,298.89	54.71	100	No
VOC	50.48	--	4.34	54.82	203.01	--	19.38	222.39	167.57	40	Yes
Sulfuric Acid Mist	2.87	--	0.046	2.91	12.43	--	0.077	12.51	9.60	7	Yes
Lead	0.0076	--	--	0.0076	0.13	--	--	0.13	0.12	0.6	No
Mercury	0.0027	--	--	0.0027	0.047	--	--	0.047	0.045	0.1	No
Fluorides	1.20	--	--	1.20	2.03	--	--	2.03	0.83	3	No

[a] Actual emissions based on the average emissions for 2001 and 2002.

[b] Represents emissions from bagasse conveying system. See Attachment UC-EU2-G8 and Appendix G for calculations.

TSP = Total Suspended Particles

PM_{10} = Particulate Matter with aerodynamic diameter less than or equal to 10 microns

VOC = Volatile Organic Compounds

Table 3-4. Increase in Impacts Due to Proposed Project Compared to Class II Significant Impact Levels and Ambient Monitoring *De Minimis* Levels

Pollutant	Averaging Time	Maximum Concentration[a] (ug/m^3)	EPA Class II Significant Impact Levels (ug/m^3)	*De Minimis* Monitoring Concentration (ug/m^3)	Ambient Monitoring Review Applies?
SO_2	Annual	0.09	1	NA	NA
	24-hour	2.32	5	13	No
	3-hour	14.6	25	NA	NA
PM_{10}	Annual	0.97	1	NA	NA
	24-hour	4.90	5	10	No
NO_2	Annual	0.50	1	14	No

[a] Highest concentration from significant impact analysis (see Section 6.0).

Note: NA = Not Applicable, No standard exists.

4.0 AMBIENT MONITORING ANALYSIS

4.1 MONITORING REQUIREMENTS

In accordance with requirements of 40 CFR 52.21(m) and Rule 62-212.400(5)(f), 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 of major modification. For a new major facility, the affected pollutants are those that the facility would potentially emit in significant amounts. For a major modification, the pollutants are those for which the net emissions increase exceeds the significant emission rates (see Table 3-2). As discussed in Section 3.0, only ozone requires an air quality analysis to meet the PSD pre-construction monitoring requirements for the proposed Project.

Ambient air monitoring for a period of up to 1 year is generally appropriate to satisfy the PSD monitoring requirements. A minimum of 4 months of data is 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 EPA's *Ambient Monitoring Guidelines for Prevention of Significant Deterioration* (1987).

An exemption from the pre-construction ambient monitoring requirements is also available if certain criteria are met. If the predicted increase in ambient concentrations, due to the proposed modification, is less than specified *de minimis* concentrations, then the modification can be exempted from the pre-construction air monitoring requirements for that pollutant. As described in Section 3.5.2, the proposed Boiler No. 8 Project will result in ambient concentrations less than *de minimis* concentrations for PM_{10}, SO_2, and NO_2.

There is no PSD *de minimis* monitoring concentration established for VOC. However, an increase in VOC emissions of 100 TPY or more requires a preconstruction ambient monitoring analysis for ozone. This analysis is presented in the following section.

4.2 OZONE AMBIENT MONITORING ANALYSIS

Ambient ozone monitoring data from existing monitoring stations operated by FDEP are included in this application to satisfy the pre-construction monitoring requirement. Hendry County and adjacent counties are classified as attainment or maintenance areas for ozone. There are no ozone monitors located in Hendry County. The nearest monitors to Clewiston that measure ozone concentrations are located at Royal Palm Beach and Delray Beach in Palm Beach County, located approximately 70 and 90 km to the east of Clewiston, respectively.

The ozone monitor at Royal Palm Beach was moved in 2000 to another location but remained near the original site in Royal Palm Beach. Since ozone is a regional pollutant, ozone monitoring data collected in Palm Beach County are considered to be representative of ozone concentrations for the region and are used to satisfy this requirement. These stations are operated by the FDEP and measure concentrations according to EPA procedures.

From 1999 through 2002, the second-highest 1-hour average ozone concentration measured at Royal Palm Beach (the nearest site to the Project) was 0.090 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 4^{th} 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 proposed as part of this construction permit application to satisfy the preconstruction monitoring requirement for the project.

Table 4-1. Summary of Maximum Ozone Concentrations Measured Near the Clewiston Mill

				Concentration (ppm)		
				1-Hour		8-Hour
County	AIRS No.	Location	Year	Highest	2nd Highest	3-year Average 4th Highest
Florida AAQS [a]				**NA**	**0.12**	**0.08**
Palm Beach	12-099-0009	Royal Palm Beach	2002	0.082	0.075	0.067
		980 Crestwood Blvd. North	2001	0.107	0.090	NA
		(Waste Water Plant)	2000	0.083	0.078	NA
Palm Beach	12-099-0007	Royal Palm Beach 10999 Okeechobee	1999	0.066	0.064	0.062
Palm Beach	12-099-2004	Delray Beach	2002	0.091	0.084	0.068
		210 NW 1st Ave.	2001	0.102	0.098	0.075
			2000	0.096	0.093	0.078
			1999	0.108	0.104	0.076

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

Source: EPA, 2002 (Quick Look Report, Air Quality Subsystem).

[a] On July 18, 1997, EPA promulgated revised AAQS for ozone. The O_3 standard was modified to be 0.08 ppm for the 8-hour average; achieved when the 3-year average of 99th percentile values is 0.08 ppm or less. Until recently, the courts had stayed these standards but they will now be implemented by the states in the next several years. Florida DEP has not yet adopted the revised standards.

5.0 BEST AVAILABLE CONTROL TECHNOLOGY ANALYSIS

5.1 REQUIREMENTS

The 1977 CAA Amendments established requirements for the approval of pre-construction permit applications under the PSD program. As discussed in Section 3.2.2, one of these requirements is that BACT be installed for applicable pollutants. BACT determinations must be made on a case-by-case basis considering technical, economic, energy, and environmental impacts for various BACT alternatives. To bring consistency to the BACT process, the EPA developed the "top-down" approach to BACT determinations.

The first step in a top-down BACT analysis is to determine, for each applicable pollutant, the most stringent control alternative available for a similar source or source category. If it can be shown that this level of control is not feasible on the basis of technical, economic, energy, or environmental impacts for the source in question, then the next most stringent level of control is identified and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any technical, economic, energy, or environmental consideration.

In the case of the proposed project, PM/PM_{10}, SO_2, NO_x, VOC, and Sulfuric Acid Mist (SAM) emissions from Boiler No. 8 require a BACT analysis. The BACT analysis is presented in the following sections.

5.2 PARTICULATE MATTER (PM/PM_{10})

5.2.1 PROPOSED CONTROL TECHNOLOGY

Emissions of PM/PM_{10} from Boiler No. 8 will occur due to combustion of bagasse, No. 2 fuel oil, and natural gas. The proposed BACT for PM/PM_{10} is based on the following control techniques:

- Wet cyclone dust collector; and
- Electrostatic Precipitator (ESP).

The proposed maximum PM/PM_{10} emissions for Boiler No. 8 are 0.026 lb/MMBtu for firing of bagasse and fuel oil. Expected PM/PM_{10} emissions when firing natural gas are 0.0076 lb/MMBtu. The maximum PM/PM_{10} emissions for Boiler No. 8 will be limited to 26.8 lb/hr and 88.0 TPY. The maximum emissions are based on bagasse firing.

5.2.2 BACT ANALYSIS

Previous BACT Determinations

As part of the BACT analysis, a review was performed of previous PM/PM_{10} BACT determinations for industrial and electric utility boilers listed in the RACT/BACT/LAER Clearinghouse on EPA's web page. A summary of BACT determinations for biomass-fired industrial and electric utility boilers from this review are presented in Table 5-1. Determinations issued during the last 10 years are shown in the table.

From the review of previous BACT determinations, it is evident that PM/PM_{10} BACT determinations for new biomass-fired industrial and electric utility boilers have typically been based on cyclone/ESP technology, baghouses, or wet scrubbers. BACT determinations have been in the range of 0.02 to 0.15 lb/MMBtu of PM/PM_{10} emissions. The most recent determinations are in the range of 0.03 to 0.15 lb/MMBtu.

Control Technology Feasibility

The technically feasible PM/PM_{10} controls for Boiler No. 8 are listed in Table 5-2. As shown, there are five types of PM/PM_{10} abatement methods with various techniques of each method. Each available technique was listed with its associated efficiency estimate, identified as feasible or infeasible, and ranked based on control efficiency.

Potential Control Method Descriptions

Fuel Techniques

Fuel Substitution, or fuel switching, is a common means of reducing emissions from combustion sources, such as electric utilities and industrial boilers. It involves replacing the current fuel with a fuel, which emits less of a given pollutant when burned.

For fuel substitution to be practical, there must be a suitable replacement fuel available at an acceptable cost. U.S. Sugar's primary fuel for Boiler No. 8 will be bagasse, which is a co-product of their sugar operations; therefore, substitution of the fuel would result in an unacceptable cost impact.

Pretreatment Devices

The performance of particulate control devices can often be improved through pretreatment of the gas stream. For PM control devices, pretreatment consists of the following techniques:

- Settling Chambers;
- Elutriators;
- Momentum Separators;
- Mechanically-Aided Separators; and
- Cyclones.

Of these five techniques, cyclones offer the most control efficiency, typically in the range of 60 to 90 percent. All of the other techniques have control efficiencies less than 30 percent.

Cyclones use inertia to remove particles from a spinning gas stream. Within a cyclone, the gas stream is forced to spin within a usually conical-shaped chamber. The gas spirals down the cyclone near the inner surface of the cyclone tube. At the bottom of the cyclone the gas turns and spirals up through the center of the tube and out the top of the cyclone.

Particles in the gas stream are forced toward the cyclone walls by centrifugal forces. For particles that are large, typically greater than 10 microns, inertial momentum overcomes the fluid drag forces so that the particles reach the cyclone walls and are collected. For smaller particles, the fluid drag forces are greater than the momentum forces and the particles follow the gas out of the cyclone. Inside the cyclone gravity forces the large particles down the sidewalls of the cyclone to a hopper where they are collected.

Pretreatment devices are technically feasible for application to Boiler No. 8. U.S. Sugar will utilize a wet cyclone (wet sand separator) of the same design as currently used on Boiler No. 7 at Clewiston. This will provide pretreatment before the gas stream enters the ESP.

Electrostatic Precipitators (ESPs)

Collection of PM by electrostatic precipitators involves the ionization of the gas stream passing through the ESP, the charging, migration, and collection of particles on oppositely charged surfaces, and the removal of particles form the collection surfaces. There are two basic types of ESPs, dry and wet. In dry ESPs, the particulate is removed by rappers, which vibrate the collection surface, dislodging the material and allowing it to fall into the collection hoppers. Wet ESPs use water to rinse the particulates off of the collection surfaces.

Electrostatic precipitators have several advantages when compared with other control devices. They are very efficient collectors, even for small particles, with greater than 97 percent control efficiency. ESPs can also treat large volumes of gas with a low pressure drop. ESPs can operate over a wide range of temperatures and generally have low operating cost. The disadvantages of ESPs are large capital cost, large space requirements and difficulty in controlling particles with high resistivity.

ESPs are technically feasible for application to Boiler No. 8. U.S. Sugar will utilize an ESP of the same type (dry, wire plate) as currently used on Boiler No. 7 at Clewiston. This system has been demonstrated to be very effective on Boiler No. 7 for PM control.

Fabric Filters

Baghouses, or fabric filters, utilize porous fabric to clean an airstream. They include types such as reverse-air, shaker, and pulse-jet baghouses. The dust that accumulates on the surface of the filter aids in the filtering of fine dust particles. PM/PM_{10} control efficiencies for fabric filters are typically greater than 99 percent.

During fabric filtration, dusty gas is sent through the fabric by forced-draft fans. The fabric is responsible for some filtration, but more significantly it acts as support for the dust layer that accumulates. The layer of dust, also known as the filter cake, is a highly efficient filter, even for submicron particles. Woven fabrics rely on the filtration of the dust cake much more than felted fabrics.

Fabric filters offer high efficiencies, are flexible to treat many types of dusts and a wide range of volumetric gas flow rates. In addition, fabric filters can be operated with low pressure drop. Some potential disadvantages are:

- High moisture gas streams and sticky particles can plug the fabric and blind the filter, requiring bag replacement;
- High temperatures can damage fabric bags; and
- Fabric filters have a potential for fire or explosion.

Fabric filters are considered technically infeasible for application to Boiler No. 8. There is no known application of a baghouse to a bagasse-fired boiler, and therefore the technology is unproven. Serious concerns exist over the ability of a baghouse to operate long term in a harsh environment, on a flue gas containing significant moisture and "stringy" bagasse particles, and with potential fire hazards due to burning particles being carried out of the boiler. This is the nature of bagasse boilers, where the fuel is light and stringy compared to other biomass fuels. As a result, fabric filter technology was not further considered.

Wet Scrubbers

Wet scrubbers are systems that involve particle collection by contacting the particles to a liquid, usually water. The aerosol particles are transferred from the gaseous airstream to the surface of the liquid by several different mechanisms. Wet scrubbers create a liquid waste that must be treated prior to disposal. PM/PM_{10} control efficiencies for wet scrubbing systems range from about 50 to 95 percent, depending on the type of scrubbing system used. Typical wet scrubbers are as follows:

- Spray Chamber;
- Packed-Bed;
- Impingement Plate;
- Mechanically-Aided;
- Venturi;
- Orifice; and
- Condensation.

The advantages of wet scrubbers compared to other PM collection devices are that they can collect flammable and explosive dusts safely, absorb gaseous pollutants, and collect mists. Scrubbers can also cool hot gas streams. The disadvantages are the potential for corrosion and freezing, the potential of water and solid waste pollution problems, and high energy costs.

Wet scrubbers, although technically feasible for Boiler No. 8, would not provide a greater degree of PM emission reduction compared to an ESP, would create a wastewater stream, and result in higher energy costs. Therefore, this technology was not further considered.

Economic Analysis

U.S. Sugar is proposing to utilize a wet cyclone dust collector and ESP to control PM/PM_{10}. This combination of control equipment will result in the highest control efficiency determined to be feasible for the project. The cyclone and ESP will result in greater than 97 percent reduction in uncontrolled PM/PM_{10} emissions. This is a proven technology utilized on Clewiston Boiler No. 7 and at New Hope Power Partnership on bagasse-fired boilers.

A detailed economic analysis of the proposed wet cyclone/ESP control system is presented in Table 5-3. Additional PM/PM_{10} control equipment would result in an unacceptable economic burden for U.S. Sugar. Similar combinations of mechanical dust collectors and ESPs have demonstrated efficient PM/PM_{10} removal at similar facilities.

Environmental Impacts

As shown in Table 6-8, the maximum predicted PM impacts for the proposed project are well below the EPA significant impact levels. Additional PM controls would result in an insignificant reduction of ambient impacts that are already below EPA significance levels for both Class I and II areas.

5.2.3 BACT SELECTION

In conclusion, U.S. Sugar's proposed PM/PM_{10} technology and emission limit is reasonable based on previous BACT determinations for similar facilities. Any additional or different add-on PM/PM_{10} control equipment is not appropriate for the boiler. Such control equipment would result in significant capital costs and may prove unworkable. Therefore, the proposed PM/PM_{10} BACT limit of 0.026 lb/MMBtu is based on the wet cyclone dust collector and ESP combination.

5.3 SULFUR DIOXIDE

5.3.1 PROPOSED CONTROL TECHNOLOGY

The proposed SO_2 emissions controls are by burning bagasse, ultra-low sulfur No. 2 distillate fuel oil (0.05 percent sulfur, maximum), and natural gas. All of these fuels are inherently very low in sulfur, and therefore produce low SO_2 emissions. The bagasse at Clewiston has a range of sulfur contents from 0.03 to 0.07 percent (based on weekly composite samples), with an average of 0.05 percent sulfur (by weight, dry basis). This average is equivalent to 0.14 lb/MMBtu in the fuel.

In addition, SO_2 removal is inherent to the process of combusting bagasse. The fly ash produced during bagasse firing is alkaline in nature and acts as a dry scrubbant, adsorbing SO_2 from the exhaust stream. The ash is then collected in the mechanical collectors and the ESP. This has been demonstrated on Boiler No. 7 at U.S. Sugar. This boiler has an ESP control device similar to that proposed for Boiler No. 8, and measured SO_2 emissions averaged 0.014 lb/MMBtu. At New Hope Power Partnership, where a combination of wood and bagasse is burned with a similar mechincal collector/ESP control device, SO_2 emissions have averaged less than 0.06 lb/MMBtu.

The proposed BACT for SO_2 is firing of low sulfur fuels. The proposed BACT emission limit for SO_2 for bagasse firing is 0.06 lb/MMBtu on an annual average basis.

For fuel oil firing, the proposed BACT is burning ultra-low sulfur distillate oil with a maximum sulfur content of 0.05 percent. This is equivalent to SO_2 emissions of approximately 0.05 lb/MMBtu. No limit is proposed for natural gas firing; however, estimated SO_2 emissions are 0.0058 lb/MMBtu based on emission factors.

5.3.2 BACT ANALYSIS

Previous BACT Determinations

A review was performed of previous SO_2 BACT determinations for similar biomass-fired industrial and electric utility boilers listed in the RACT/BACT/LAER Clearinghouse on EPA's web page. A summary of these BACT determinations is presented in Table 5-4. Only determinations issued within the last 10 years are shown. Note that one fluidized bed biomass boiler located in California (SAI Energy, Inc.) was not included in the table because of the distinct differences between U.S. Sugar's proposed stoker boiler and a fluidized bed boiler.

Previous BACT determinations have ranged from 0.016 to 0.46 lb/MMBtu SO_2. Three of these determinations were for bagasse-fired boilers. Bagasse is a fuel that exhibits lower and less variable sulfur content than wood. Five projects were located at paper mills, which predominantly obtain biomass from dedicated forests, with a consistent fuel quality. It is noted that the Grayling Generating Station determination listed is likely not a BACT determination, because total SO_2 emissions from the plant were less than 40 TPY. However, it was provided due to the recent issuance of this permit and its similarity to the U.S. Sugar project. FDEP has recently issued a draft permit for Palm Beach Power Corporation's cogeneration boilers with an annual SO_2 limit of 0.06 lb/MMBtu determined to be BACT.

From the review of these previous BACT determinations, it is evident that SO_2 BACT determinations for biomass-fired boilers have been based solely on fuel specifications (i.e., use of low sulfur-containing fuels). Therefore, the emission limits are based on the prospective fuel supply. Note that the recent determination for S.D. Warren Co. was for a boiler located at a paper mill that fires bark, wood, sludge, No. 6 fuel oil, tire-derived fuel, and waste oil. Thus, this boiler is not a primarily biomass-fired boiler.

Control Technology Feasibility

The technically feasible SO_2 controls for Boiler No. 8 are shown in Table 5-5. As shown, there are five types of SO_2 abatement methods. Each available technique was listed with its associated efficiency estimate, identified as feasible or infeasible, and ranked based on control efficiency. All the techniques are considered technically feasible for Boiler No. 8.

Potential Control Method Descriptions

Sorbent Injection

Sorbent Injection involves the injection of a dry sorbent into the furnace, economizer, or in the flue gas duct after the preheater where the temperature is about 150 degrees Celsius (°C). In furnace injection, a finely grained sorbent, limestone ($CaCO_3$) or hydrated lime [$Ca(OH)_2$] is distributed quickly and evenly over the entire cross section in the upper part of the furnace in a location where the temperature is in the range of 750 to 1,250°C. The sorbent reacts with SO_2 and O_2 to form $CaSO_4$. $CaSO_4$ is then captured in a particulate control device together with unused sorbent and fly ash. Temperatures over 1,250°C result in sintering of the surface on the sorbent, destroying the structure of the pores and reducing the active surface area.

In an economizer sorbent injection system, hydrated lime is injected into the flue gas stream near the economizer zone where the temperature is in the range of 300 to 650°C. At this temperature, SO_2 reacts with the sorbent to form $CaSO_3$.

In duct sorbent injection the aim is to distribute the sorbent evenly in the flue gas duct after the air preheater, where the temperature is about 150°C. At the same time, the flue gas is humidified with water. As with the furnace and economizer designs, the end products are collected in a particulate control device.

There are many factors that influence the performance of a duct sorbent injection process. These include sorbent reactivity, quantity of injected sorbent, relative humidity of the flue gas, gas and solids residence time in the duct, and quantity of recycled, unreacted sorbent from the particulate control device. The most efficient way of achieving good conditions is to establish a dedicated reaction chamber.

Wet Scrubbers

Devices that are based on absorption principles include packed towers, plate columns, venturi scrubbers, and spray chambers. Absorption is a mass transfer operation in which one or more soluble components of a gas mixture are dissolved in a liquid that has low volatility under the process conditions. The pollutant diffuses from the gas into the liquid when the liquid contains less than the equilibrium concentration of the gaseous component. The difference between the actual and the equilibrium concentration provides the driving force for absorption.

Wet flue gas desulfurization (FGD) systems include technologies such as lime, limestone forced or inhibited oxidation, and magnesium-enhanced lime FGD. These systems create solid and liquid waste streams, which must be treated before disposal. SO_2 control efficiencies for wet limestone FGD range from 50 to 98 percent, depending on the type of device and design, with an average of 90 percent.

Spray Dry Scrubbers

In lime spray dryers, the lime slurry (also called lime milk) is atomized/sprayed into a reactor vessel in a cloud of fine droplets where the water is evaporated by the heat of the flue gas. The typical residence time of about 10 seconds in the reactor is sufficient to allow for the SO_2 and other acid gases such as SO_3 and HCl to react simultaneously with the hydrated lime to form a dry mixture of calcium suphate/sulphite. Waste water treatment is not needed in spray dry scrubbers because the water is completely evaporated in the system. Factors affecting the absorption chemistry include flue gas temperature, SO_2 concentration in the flue gas and the size of the atomized slurry droplets.

These systems must be followed by a highly efficient PM control device, which is typically a fabric filter, although an electrostatic precipitator could also be used. Lime spray drying efficiency ranges from 70 to 96 percent, with an average of 90 percent.

Spray dryer scrubbers are the second most widely used FGD technology. However, their application is limited to flue gas volumes up to 200 MWe power plants on average. Larger plants require use of several modules to deal with the total flue gas flow. For this reason, spray dryer scrubbers are used in small to medium sized facilities.

The absorber construction material is usually carbon steel making the process less expensive in capital costs compared with wet scrubbers. However, the necessary use of lime in the process increases its annual operational costs.

Regenerative Process

Regenerative FGD systems can be either wet or dry and result in a concentrated stream of SO_2, which can then be sold. These systems include sodium sulfite, magnesium oxide, sodium carbonate, and amine.

In regenerative processes, the sorbent is regenerated chemically or thermally and re-used. Elemental sulfur or sulfuric acid is recovered from the SO_2 removed. The revenue from these by products can compensate partially for the higher capital cost required in such systems. In general, regenerative processes require no waste disposal, produce little waste water and have low sorbent make-up requirements. However, in most systems, a prescrubber is essential to control chlorides. Although these processes can achieve high SO_2 removal efficiencies (> 95 percent), they have in general high capital costs and power consumption.

Economic Analysis

Wet, dry, and regenerable FGD systems can all achieve the same level of SO_2 control efficiency. To evaluate the cost effectiveness of FGD applied to the proposed Boiler No. 8, cost estimates for a lime spray drying system were developed. Spray drying systems are generally less expensive than the wet limestone FGD process and are therefore more economical. Cost quotes from Hamon Research-Cottrell, Inc., and Wheelabrator Air Pollution Control were utilized for economic analysis.

These quotes are for complete systems, including the spray dryer absorber, lime delivery system, pulse jet fabric filter, and ancillary equipment. To install a lime spray-drying system, PM/PM_{10} control equipment would be required due the increased particulate loading caused by the spray drying systems. SO_2 removal was specified as 90 percent. Fuel heating value and sulfur content were specified to result in uncontrolled SO_2 emissions of 0.06 lb/MMBtu, which is the proposed annual average limit for Boiler No. 8. Capital recovery costs were based on 7-percent interest and a 20-year equipment life.

Emissions reductions for fluorides and HCl were also included in the cost effectiveness calculations since the FGD system will also control these pollutants. Emissions reductions for PM/PM_{10} were not included since it is not certain a fabric filter would achieve PM/PM_{10} emissions less than the proposed BACT limit of 0.026 lb/MMBtu, achievable with the proposed wet cyclone/ESP system.

The cost analysis is presented in Tables 5-6 and 5-7. Based on the vendor quotes, the resulting capital costs range from $11,700,000 to greater than $14,800,000. The annualized cost of applying lime spray drying FGD ranges from $1,900,000 to $2,300,000 per year. However, this annual cost includes PM control, since the system employs a baghouse. Since U.S. Sugar will already utilize a wet cyclone/ESP for PM control, the cost of acid gas removal (SO_2, HF, and HCl) is the incremental annual cost between the two systems (see Tables 5-3 and 5-6). This incremental cost ranges from $1,000,000 to $1,400,000 per year.

Based on uncontrolled emissions of SO_2, HCl, and HF of 206.9 TPY, and assuming 90-percent removal, the total SO_2/HCl/HF removed is 186.2 TPY. The resulting cost effectiveness ranges from $5,500 to over $7,700 per ton of acid gas removed. These costs are considered to be unreasonable and infeasible for the proposed project.

Wet and regenerable FGD control systems would have higher capital and annual operating costs, with a resulting higher cost effectiveness, and therefore were not evaluated with a detailed cost estimate.

Environmental Impacts

As shown in Table 6-8, the maximum predicted SO_2 impacts for the proposed project are well below the EPA significant impact levels. Additional SO_2 control would result in an insignificant reduction of ambient impacts that are already below EPA significance levels for both Class I and II areas.

5.3.3 SUMMARY

The proposed BACT emission limit for SO_2 has been based on the historical bagasse fuel supply for the U.S. Sugar Clewiston facility. The proposed annual SO_2 limit is 0.06 lb/MMBtu for bagasse fuel firing. For fuel oil firing, the proposed BACT limit is the use of 0.05 percent sulfur fuel oil.

U.S. Sugar's request for SO_2 emissions standards is reasonable based on the existing information from the U.S. Sugar Clewiston facility, the low sulfur content of bagasse, and BACT determinations for similar biomass-fired boilers. The SO_2 emissions are a direct function of the fuel sulfur content. The uncontrolled SO_2 emissions from bagasse, No. 2 fuel oil, and natural gas are very low, which renders any add-on control equipment as too costly. Further, there is inherent SO_2 removal in the boiler/PM control system, estimated to be in the range of 85 to 99 percent without add-on control equipment.

Each of the alternative SO_2 control systems would result in significant capital and operating costs for U.S. Sugar. Therefore, the following BACT emission limit is proposed based on the firing of low sulfur fuels:

- Annual average SO_2 limit of 0.06 lb/MMBtu for firing biomass, and
- SO_2 limit of 0.05 percent sulfur fuel (0.05 lb/MMBtu) when firing No. 2 fuel oil.

In summary, the proposed BACT for Boiler No. 8 is the use of very low sulfur fuels, i.e., bagasse, No. 2 fuel oil, and natural gas.

5.4 <u>NITROGEN OXIDES</u>

5.4.1 PROPOSED CONTROL TECHNOLOGY

Boiler No. 8 will be designed for balanced draft furnace operation and will be primarily bagasse-fired on a stoker grate. The boiler will be designed to provide maximum combustion efficiency, reduced emissions, and quick response to load changes, reliability, and serviceability. Bagasse will be conveyed to the unit from the storage area to a bagasse feed system incorporating rotating feeders and 6 pneumatic distributors. From the feeder, the fuel is dropped into the discharge chute to the pneumatic distributors and is injected into the furnace above the grate. Lighter particles burn in suspension. Fuel not combusting in suspension falls to the grate to complete the process. This system promotes burning in suspension to improve combustion efficiency and reduce emissions. The boiler will utilize an overfire air system to promote vigorous mixing of the combustion gases to maximize combustion efficiency and reduce pollutant emissions. The overfire air system injects hot air at high velocities into the furnace.

The proposed BACT for NO_x is the use of good combustion practices, overfire air, and low nitrogen content fuels (bagasse, No. 2 fuel oil, and natural gas). The proposed BACT emission limit for NO_x is 0.22 lb/MMBtu for bagasse, No. 2 fuel oil, and natural gas.

5.4.2 BACT ANALYSIS

Previous BACT Determinations

As part of the BACT analysis, a review was performed of previous BACT determinations for similar biomass-fired industrial and electric utility boilers listed in the RACT/BACT/LAER Clearinghouse on EPA's web page. From this information, BACT determinations issued within the last 10 years (i.e., since 1992) were identified. A summary of these BACT determinations is presented in Table 5-8.

Aside from one exception, previous BACT determinations for NO_x have ranged from 0.14 to 0.46 lb/MMBtu. The one exception is a limit of 0.10 lb/MMBtu limit for Multitrade Limited Partnership in Virginia. The Multitrade limit was issued over 10 years ago. In comparison to the proposed U.S. Sugar Boiler No. 8, Multitrade Limited Partnership operates as a peaking plant that burns 100 percent wood fuels. Monthly capacity factors for the plant range from 13 to 68 percent (2001 data). In contrast, Boiler No. 8 will burn primarily bagasse with No. 2 fuel oil and natural gas as supplemental fuel, and will operate at a high capacity factor. Since Multitrade operates as a peaking plant with limited hours of operation per year and higher generated revenue, higher urea usage is technically and economically feasible for this facility.

FDEP has recently issued a draft permit for Palm Beach Power Corporation boilers with an NO_x limit of 0.15 lb/MMBtu. These boilers will burn a combination of wood and bagasse.

Control Technology Feasibility

The technically feasible NO_x controls for Boiler No. 8 are shown in Table 5-9. As shown in the table, there are six types of NO_x abatement methods with various techniques of each method. Each available technique was listed with its associated efficiency estimate, identified as feasible or infeasible, and ranked based on control efficiency.

Potential Control Method Descriptions

Using a Sorbent

Absorbent in Combustion Chambers or Ducts -- Several methods are used to inject and remove absorbent. For the removal of NO_x, aqueous ammonia can be sprayed into the flue gas. In this system, the ammonia reacts with NO in the gas stream to produce ammonium nitrate. See below for a description of SNCR.

Removal of Nitrogen

Ultra-Low Nitrogen Fuel -- The fuels combusted in Boiler No. 8 will be bagasse, No. 2 fuel oil, and natural gas. Combustion of these fuels results in emissions of NO_x that are lower than conventional fuels due to the characteristically low levels of nitrogen associated with these fuels. U.S. Sugar will control NO_x emissions from Boiler No. 8 through the use of low nitrogen content fuels.

Oxidation of NO_x with Subsequent Absorbtion

Inject Oxidant -- The oxidation of nitrogen to its higher valence states makes NO_x soluble in water. When this is done a gas absorber can be effective. Oxidants that have been injected into the gas stream are ozone, ionized oxygen, or hydrogen peroxide. This NO_x reduction technique has not been demonstrated on large-scale boilers or with biomass combustion, and as such is not considered technically feasible for Boiler No. 8.

Non-Thermal Plasma Reactor (NTPR) -- This technique generates electron energies in the gas stream that generate gas-phased radicals, such as hydroxyl (OH) and atomic oxygen (O) through collision of electrons with water and oxygen molecules present in the flue gas stream. In the flue gas stream, these radicals oxidize NO_x to form nitric acid (HNO_3), which can then be condensed out through a wet condensing precipitator. NTPR has not been demonstrated on large-scale boilers or with biomass combustion, and as such is not considered technically feasible for Boiler No. 8.

Chemical Reduction of NO_x

Selective Catalytic Reduction (SCR) -- SCR uses a catalyst to react injected ammonia to chemically reduce NO_x. The catalyst has a finite life in flue gas and some ammonia slips through without being reacted. SCR has historically used precious metal catalysts, but can now also use base metal and zeolite catalyst materials. Catalyst poisoning due to bagasse combustion excludes SCR as and option for NO_x control for the proposed Boiler No. 8. Technical difficulties associated with applying SCR include no operating experience on bagasse, and likely premature catalyst deactivation due to chemical poisoning of the catalyst resulting from the alkali content of the ash. Based on analysis of ash from Clewiston Boiler No. 7, the ash contains 0.3 percent sodium, 15 percent potassium, 6 percent phosphorus, 9 percent sulfur, and over 5 percent chlorides (all as oxides).

The high moisture content of bagasse (approximately 50 percent moisture) is also a concern for catalyst operation. The SCR placement would be prior to the air preheater, where the flue gas temperature is in the range of 600 to 1,000°F. High particulate loading prior to the wet cyclone collector would, therefore, be a concern. This could lead to catalyst fouling, reduced NO_x removal efficiency, and failure of the system.

Selective Non-Catalytic Reduction (SNCR) -- In SNCR, ammonia or urea is injected within the boiler or in ducts in a region where temperature is between 900 and 1,100°C. This technology is based on temperature ionizing the ammonia or urea instead of using a catalyst or non-thermal plasma. The temperature window for SNCR is very important because outside of it either more ammonia slips through the system or more NO_x is generated than is being chemically reduced. SNCR has been demonstrated as a feasible technology for biomass combustion and can achieve NO_x reductions up to 50 percent.

Reducing Residence Time at Peak Temperature

Air Staging of Combustion -- Combustion air is divided into two streams. The first stream is mixed with fuel in a ratio that produces a reducing flame. The second stream is injected downstream of the flame and creates an oxygen-rich zone. Boiler No. 8 will utilize over-fire air, which acts as air staging of combustion.

Fuel Staging of Combustion -- This is staging of combustion using fuel instead of air. Fuel is divided into two streams. The first stream feeds primary combustion that operates in a reducing fuel-to-air ratio. The second stream is injected downstream of primary combustion, causing the net fuel to air ratio to be slightly oxidizing. Excess fuel in the primary combustion zone dilutes heat to reduce temperature. The second stream oxidizes the fuel while reducing the NO_x to N_2.

Inject Steam -- Injection of steam causes the stoichiometry of the mixture to be changed and dilutes calories generated by combustion. These actions cause combustion temperature to be lower, and in-turn reduces the amount of thermal NO_x formed.

Each of these techniques to reduce residence time at peak temperature are technically feasible.

Reducing Peak Temperature

Flue Gas Recirculation (FGR) -- Recirculation of cooled flue gas reduces combustion temperature by diluting the oxygen content of the combustion air and by causing heat to be diluted in a greater mass of flue gas. Heat in the flue gas can be recovered by a heat exchanger. This reduction of temperature lowers the thermal NO_x concentration that is generated.

Reburn -- In a boiler outfitted with reburn technology, a set of natural gas burners are installed above the primary combustion zone. Natural gas is injected to form a fuel-rich, oxygen-deficient combustion zone above the main firing zone. Nitrogen oxides, created by the combustion process in the main portion of the boiler, drift upward into the reburn zone and are converted to molecular nitrogen. The technology requires no catalysts, chemical reagents, or changes to any existing burners. Typical reburn systems also incorporate redesign of the combustion air system to provide less excess air (LEA). Natural gas reburn is a feasible technology for Boiler No. 8. However, a reburn system would require displacement of 20 percent of the bagasse with natural gas, which would result in a natural gas cost of approximately $6.8 million per year, while resulting in, at best, 25 percent reduction of NO_x emissions. See Table 5-11 for detailed cost analysis. In addition, natural gas is not currently available at the Clewiston Mill.

Over-Fire Air (OFA) -- When primary combustion uses a fuel-rich mixture, use of OFA completes the combustion. Because the mixture is always off-stoichiometric when combustion is occurring, the temperature is reduced. After all other stages of combustion, the remainder of the fuel is oxidized in the OFA. Boiler No. 8 will utilize an OFA system to promote vigorous mixing of the combustion gases to maximize combustion efficiency and reduce pollutant emissions. The OFA system injects hot air at high velocities into the furnace.

Less Excess Air (LEA) -- Excess airflow combustion has been correlated to the amount of NO_x generated. Limiting the net excess airflow can limit NO_x content of the flue gas. The proposed Boiler No. 8 will utilize a combustion system that minimizes the amount of excess air in the furnace.

Combustion Optimization -- Combustion optimization refers to the active control of combustion. The active combustion control measures seek to find optimum combustion efficiency and to control combustion at that efficiency. Boiler No. 8 will be optimized for maximum combustion efficiency. However, the nature of bagasse fuel results in continuous changes to optimization points.

Low NO_x Burners (LNB) -- A LNB provides a stable flame that has several different zones. For example, the first zone can be primary combustion. The second zone can be Fuel Reburning (FR) with fuel added to chemically reduce NO_x. The third zone can be the final combustion in low excess air to limit the temperature. LNB is not an option for biomass fired system with pneumatic distributor for fuel feed system. In this system, the fuel is dropped into the discharge chute to the pneumatic distributor and is injected into the furnace above the grate. Lighter particles burn in suspension. Fuel not combusting in suspension, falls to the grate to complete the process.

Low-NO_x burners can be employed for natural gas and fuel oil firing. These type burners will be utilized on Boiler No. 8.

<u>**Economic Analysis**</u>

SNCR

The top feasible control technology, as shown in Table 5-9, is SNCR. To evaluate the economic impact of SNCR on the project, a cost quote was obtained from DNT De-Nox Technologies. The cost analysis for SNCR is presented in Table 5-10. The total estimated capital cost of SNCR for Boiler No. 8 is estimated at $1.85 million. The total annualized cost of applying SNCR is estimated at $522,000 per year. The resulting cost effectiveness of adding SNCR is estimated at over $1,400 per ton of NO_x removed.

Uncontrolled baseline NO_x emissions are based on 0.22 lb/MMBtu. For maximum controlled emissions, a controlled NO_x emission rate of 0.11 lb/MMBtu was estimated by the control vendor, equivalent to 50 percent removal efficiency.

Natural Gas Reburn

In addition to SNCR, an economic analysis was also performed for a natural gas reburn (NGR) system. To evaluate the incremental cost impact of NGR on the project, a cost quote from COEN was utilized. The total estimated capital cost of NGR for Boiler No. 8 is $803,605. Based on the vendor quote with a NO_x control efficiency of 25 percent, the total annualized cost of applying NGR is estimated at $6.9 million, with a resulting incremental cost effectiveness of over $37,000 per ton of NO_x removed (see Table 5-11).

Uncontrolled baseline emissions are 0.22 lb/MMBtu. The high operating costs are a result of the requirement to replace 20 percent of the bagasse fuel with natural gas. The bagasse is a byproduct of the sugar process and is a free source of fuel for the facility.

Environmental Impacts

As shown in Tables 6-8 and 6-9, the maximum predicted annual NO_2 impacts for the proposed project are about half of the EPA significant impact levels. Additional NO_x controls would result in an insignificant reduction of ambient impacts that are already below EPA significance levels for both Class I and II areas.

Energy Impacts

Energy penalties occur with both SNCR and natural gas reburn. As discussed previously, natural gas reburn will require the displacement of 20 percent of the biomass fuel with natural gas. As a result, annual natural gas fuel costs will be nearly $6,800,000 based on a natural gas cost of $5 per million British thermal unit (MMBtu). SNCR will require inputs of energy, water, and urea. The water and energy requirements will equal approximately $0.02 per gallon of reactant. Based on an estimated 265,000 gallons per year of urea solution, the water and energy cost will be $5,300 per year. There will also be a loss in efficiency of the boiler, due to the injection of an aqueous stream and subsequent evaporation in the boiler.

5.4.3 BACT SELECTION

For U.S. Sugar, the combination of good combustion practices, over-fire air, low excess air, and low nitrogen content fuel (bagasse), No. 2 fuel oil, and natural gas can achieve the maximum amount of emissions reduction economically feasible, is technically feasible, and is demonstrated in practice. Additional controls should be rejected as BACT for Boiler No. 8 for the following reasons:

- SNCR has not been demonstrated in practice on a 100-percent bagasse-fired boiler and operating in a harsh environment. There are serious concerns related to premature boiler tube failure and other effects on downstream equipment (air heater, superheater, etc.), and associated maintenance/repair costs.
- The requested NO_x permit limit of 0.22 lb/MMBtu is representative of previous BACT determinations for NO_x ranging from 0.14 to 0.46 lb/MMBtu.
- Capital costs of SNCR are nearly $2,000,000, with annual costs of greater than $500,000.
- Additional controls with natural gas reburn results in high annual costs and low emission reduction potential resulting in a cost effectiveness of over $37,000 per ton of NO_x removed.

Therefore, the proposed NO_x BACT limit for Boiler No. 8 is based on good combustion practices, over-fire air, and low nitrogen content fuel (bagasse), No. 2 fuel oil, and natural gas, and is 0.22 lb/MMBtu when firing any authorized fuel.

5.5 VOLATILE ORGANIC COMPOUNDS (VOCs)

5.5.1 PROPOSED CONTROL TECHNOLOGY

VOC emissions are proposed to be controlled through proper furnace design and good combustion practices, including control of combustion air and temperature, distribution of fuel on the combustion grate, and proper control over the furnace loads and transient conditions. The proposed VOC BACT emission limit for Boiler No. 8 is 0.06 lb/MMBtu for biomass firing.

5.5.2 BACT ANALYSIS

Previous BACT Determinations

As part of the BACT analysis, a review was performed of previous VOC BACT determinations for industrial and electric utility boilers listed in the RACT/BACT/LAER Clearinghouse on EPA's web page. A summary of the BACT determinations for biomass-fired industrial and electric utility boilers from this review is presented in Table 5-12. The VOC emission limits for biomass-fired industrial and electric utility boilers range from 0.007 to 2.62 lb/MMBtu. This rather large range of emissions is due to differences in boiler design and operation, as well as fuel differences. From the review of previous determinations, it is evident that VOC BACT determinations for biomass-fired industrial and electric utility boilers have been good combustion practices and boiler design.

Control Technology Feasibility

The technically feasible add-on VOC controls for Boiler No. 8 are shown in Table 5-13. As shown, there are four types of add-on VOC abatement methods. Each available technique was listed with its associated efficiency estimate, identified as feasible or infeasible, and ranked based on control efficiency.

Potential Control Method Descriptions

Refrigerated Condensors

The most common types of condensers used are surface and contact condensers. In surface condensers, the coolant does not contact the gas stream. Most surface condensers in refrigerated systems are shell and tube type. Shell and tube condensers circulate the coolant through tubes. The VOC condenses on the outside surface of the tube. Plate and frame type heat exchangers are also used as condensers in refrigerated systems. In these condensers, the coolant and the vapor flow separately over thin plates. In either design, the condensed VOC vapors drain away to a collection tank for storage, reuse, or disposal.

Contact condensers cool the vapor stream by spraying either a liquid at ambient temperature or a chilled liquid directly into the gas stream.

Refrigerated condensers are used as air pollution control devises for treating emissions with high VOC concentrations [>5,000 parts per million by volume (ppmv)], in applications involving gasoline bulk terminals, storage, etc. Refrigerated condensers are not technically feasible for reduction of VOC from industrial boilers, and as such are not technically feasible for Boiler No. 8.

Carbon Adsorbers

Adsorption is employed to remove VOC compounds from low to medium concentration gas streams. Adsorption is a phenomenon where gas molecules passing through a bed of solid particles are selectively held there by attractive forces, which are weaker and less specific than those of chemical bonds. During adsorption, a gas molecule migrates from the gas stream to the surface of the solid where it is held by physical attraction releasing energy, the heat of adsorption, which typically equals or exceeds the heat of condensation. Adsorption capacity of the solid for the gas tends to increase with the gas phase concentration, molecular weight, diffusivity, polarity, and boiling point. Gases form actual chemical bonds with the adsorbent surface groups. There are five types of adsorption techniques (see Table 5-8)

Of the five techniques, fixed bed units are typically utilized for controlling continuous VOC containing streams from flow rates ranging from several hundred to several thousand cubic feet per minute. Based on the gas flow rate of Boiler No. 8, carbon adsorption is not technically feasible for this project.

Flare

Flaring is a VOC control process in which the VOCs are piped to a remote, usually elevated, location and burned in an open flame in the open air using a specially designed burner tip and auxiliary fuel. Flares are not technically feasible for Boiler No. 8 due to the large gas volume and low Btu value of the gas stream.

Incinerators

The two basic types of incinerators are thermal and catalytic. Thermal systems may be direct flame incinerators with no energy recovery, flame incinerators with a recuperative heat exchanger, or regenerative systems, which operate in a cyclic mode to achieve high-energy recovery. Catalytic systems include fixed bed (packed bed or monolith) systems and fluid-bed systems, both of which provide for energy recovery. Catalytic systems are not an option for biomass combustion due to catalyst poisoning.

Although thermal incinerators are theoretically feasible for Boiler No. 8, the high flue gas volume and low concentration of VOCs would require that the flow be split into three gas streams and feed into three separate incinerators. In addition, it is estimated that the total incinerator natural gas usage would be approximately 48,000 standard cubic feet per hour (scf/hr), equal to 420 MMscf/yr. The combustion of natural gas would result in increased NO_x emissions. Natural gas is not currently available at the Clewiston Mill. For these reasons incineration is considered not technically feasible for Boiler No. 8.

5.5.3 BACT SELECTION

The proposed VOC emission limit for Boiler No. 8 is 0.06 lb/MMBtu for biomass firing. This proposed emission limit is within the range of previous determinations, and is equivalent to VOC limits for Palm Beach Power and New Hope Power. Boiler No. 8 will minimize VOC through proper furnace design and good combustion practices, including: control of combustion air and combustion temperature; controlled distribution of fuel on the combustion gate; and better controls over the furnace loads and transient conditions. This level of control is consistent with previous determinations.

5.6 SULFURIC ACID MIST

5.6.1 PROPOSED CONTROL TECHNOLOGY

The proposed BACT for SAM emissions is the use of low sulfur fuels. Emissions of SAM are related to SO_2 emissions. SO_2 and SAM emissions will be controlled by burning low sulfur bagasse fuel, low sulfur content fuel oil, and natural gas. Bagasse fuel, low sulfur fuel oil, and natural gas are inherently low in sulfur, and therefore produce low SAM emissions.

5.6.2 BACT ANALYSIS

Since emissions of SAM are related to SO_2 emissions, BACT for SO_2 also represents BACT for SAM. The maximum potential SAM emissions are 0.0037 lb/MMBtu (annual average basis) for bagasse firing, 0.0015 lb/MMBtu for No. 2 fuel oil, and 0.000368 lb/MMBtu for natural gas. This is equivalent to a maximum of 12.4 TPY of SAM emissions.

Previous BACT determinations for SAM emissions from biomass-fired industrial and electric utility boilers are presented in Table 5-14. Combustion control is the only control method employed in these boiler BACT determinations for SAM. Emission limits of 0.001 and 0.003 lb/MMBtu without any add-on control constitutes BACT for these previous determinations. Although there is no limit proposed for SAM, the estimated Boiler No. 8 maximum emissions for SAM are consistent with these determinations.

Table 5-1. BACT Determinations for PM/PM_{10} for Biomass-Fired Industrial and Electric Utility Boilers

Company	State	RBLC ID	Permit Date	Throughput	Emission Limits: As Provided in LAER/BACT Clearinghouse	Emission Limits: Converted to lb/MMBtu[a]	Control Equipment Description	% Efficiency
Industrial Boilers								
S.D. Warren Co.--Blr No. 2	ME	ME-0021	11/27/2001	1,300 MMBtu/hr	0.03 lb/MMBtu	0.03	Mechanical Dust Collector/ESP	--
ATLANTIC SUGAR ASSOCIATION	FL	PSD-FL-078B[b]	6/7/2001	255.3 MMBtu/hr	0.15 lb/MMBtu	0.15	Wet Scrubbers/Good Combustion Practices	--
US Sugar Corp.--Clewiston Blr No. 4	FL	PSD-FL-272A[b]	5/18/2001	633 MMBtu/hr	0.15 lb/MMBtu	0.15	Wet Scrubbers/Good Combustion Practices	--
Newman Paper Co.	PA	PA-0093	10/14/1998	129 MMBtu/hr	0.1 lb/MMBtu	0.1	Baghouse	--
GULF STATES PAPER CORP	AL	AL-0122	10/14/1998	98 MMBtu/hr	0.1 lb/MMBtu	0.1	Multicyclone and ESP	99
Sierra Pacific Industries--Quincy	CA	CA-0930	5/13/1998	245.3 MMBtu/hr	0.035 lb/MMBtu	0.035	Multicyclone and ESP	--
Champion International	AL	AL-0112	12/9/1997	710 MMBtu/hr	0.03 lb/MMBtu	0.03	ESP	--
Vaughan Furniture Company	VA	VA-0237	8/28/1996	28 MMBtu/hr	36.8 TPY[a]	0.3	Multicyclones	90
Willamette Industries - Marlboro Mill	SC	SC-0045	4/17/1996	470 MMBtu/hr	0.05 lb/MMBtu	0.05	ESP	--
U.S. SUGAR CORP--Clewiston	FL	FL-0094	1/31/1995	738 MMBtu/hr	0.03 lb/MMBtu	0.03	ESP	--
Weyerhaeuser Co.	AL	AL-0079	12/23/1994	91 MMBtu/hr	0.15 lb/MMBtu	0.15	Venturi Scrubber	--
KES CHATEAUGAY PROJECT	NY	NY-0055	12/19/1994	275 MMBtu/hr	0.038 lb/MMBtu	0.038	ZURN MULTICLONE, ESP	99
Gulf States Paper Corp	AL	AL-0122	10/28/1994	98 MMBtu/hr	0.1 lb/MMBtu	0.1	Multicyclone and ESP	--
WEYERHAEUSER CO.	AL	AL-0079	10/28/1994	91 MMBtu/hr	0.15 lb/MMBtu	0.15	Venturi Scrubber	97
Scott Paper Company	WA	WA-0276	7/1/1993	718 MMBtu/hr	0.0084 gr/dscf @ 7% O_2 for PM_{10}	--	Baghouse	--
NEWMAN PAPER CO.	PA	PA-0093	4/24/1992	129 MMBtu/hr	0.1 lb/MMBtu	0.1	BAGHOUSE	99
Scott Paper Company	WA	WA-0276	4/24/1992	718 MMBtu/hr	0.011 gr/dscf @ 7% O_2 for PM_{10}	--	Baghouse	--
Electric Utility Boilers								
New Hope Power Partnership	FL	FL-0069	1/31/2002	715 MMBtu/hr	0.03 lb/MMBtu	0.03	Good Combustion Practices, ESP	--
MEAD CONTAINERBOARD	AL	AL-0099	1/15/1997	620 MMBtu/hr	0.03 lb/MMBtu	0.03	Multicyclone and ESP	99.2
Multitrade Limited Partnership	VA	VA-0183	2/21/1992	373.7 MMBtu/hr	0.02 lb/MMBtu	0.02	Multicyclone and ESP	99.7

Reference: RACT/BACT/LAER Clearinghouse on EPA's Webpage, 2001.

[a] To convert from lb/hr, the emission limit was divided by the throughput rate.
[b] This information obtained from actual PSD permit, not Clearinghouse.

Table 5-2. PM/PM_{10} Control Technolgy Feasibility Analysis for Boiler No. 8

PM Abatement Method	Technique Now Available	Estimated Efficiency	Feasible and Demonstrated? (Y/N)	Rank Based on Control Efficiency	Employed by Boiler No. 8? (Y/N)
Fuel Techniques	Fuel Substitution	NA	Y	7	N
Pretreatment	Settling Chambers	< 10%	Y	6	N
	Elutriators	< 10%	Y	6	N
	Momentum Separators	10 - 20%	Y	5	N
	Mechanically-Aided Separators	20 - 30%	Y	4	N
	Cyclones	60 - 90%	Y	3	Y
Electrostatic Precipitators(ESP)	Dry ESP	>99%	Y	1	Y
	Wet ESP	>99%	Y	1	N
	Wire-Plate ESP	>99%	Y	1	N
	Wire-Pipe ESP	>99%	Y	1	N
Fabric Filters	Shaker-Cleaned	>99%	NTF	NTF	N
	Reverse-Air	>99%	NTF	NTF	N
	Pulse-Jet	>99%	NTF	NTF	N
Wet Scrubbers	Spray Chambers	50 - 95 %	Y	2	N
	Packed-Bed	50 - 95 %	Y	2	N
	Impingement Plate	50 - 95 %	Y	2	N
	Mechanically-Aided	50 - 95 %	NTF	NTF	N
	Venturi	50 - 95 %	Y	2	N
	Orifice	50 - 95 %	Y	2	N
	Condensation	50 - 95 %	Y	2	N

Note: NTF = Not Technically Feasible

Table 5-3. Cost Effectiveness of Wet Cyclone/Electrostatic Precipitator for PM Control, U.S. Sugar Boiler No. 8

Cost Items	Cost Factors[a]	Cost ($)
DIRECT CAPITAL COSTS (DCC):		
Purchased Equipment Cost (PEC)		
ESP/Wet Cyclone + Auxiliary equip.	Engineering Estimate	3,400,000
Instruments and Controls	Included	0
Freight	Included	0
Taxes	Included	0
Total PEC:		3,400,000
Direct Installation Costs		
Foundation and Structure Support	Included	0
Handling & Erection	Included	0
Electrical	Included	0
Piping	Included	0
Insulation for ductwork	Included	0
Painting	Included	0
Total Direct Installation Costs		0
Total DCC:		3,400,000
INDIRECT CAPITAL COSTS (ICC):		
Contractor Fees +	10% of PEC	340,000
Performance test +	1% of PEC	34,000
Contingencies	3% of PEC	102,000
Total ICC:		476,000
TOTAL CAPITAL INVESTMENT (TCI):	DCC + ICC	3,876,000
DIRECT OPERATING COSTS (DOC):		
(1) Operating Labor		
Operator	21 hours/week, $16/hr, 52 weeks/yr	17,472
Supervisor	15% of operator cost	2,621
(2) Maintenance	Engineering estimate, 1% PEC	34,000
(3) Electricity - Fan	$0.06/kWh, 6570 hr/yr	7,378
(4) Electricity - Operating	$0.06/kWh, 6570 hr/yr	92,535
(5) Waste Disposal	$20/ton tipping fee	144,883
Total DOC:		298,888
INDIRECT OPERATING COSTS (IOC):		
Overhead	60% of oper. labor & maintenance	32,456
Property Taxes	1% of total capital investment	38,760
Insurance	1% of total capital investment	38,760
Administration	2% of total capital investment	77,520
Total IOC:		187,496
CAPITAL RECOVERY COSTS (CRC):	CRF of 0.0944 times TCI (20 yrs @ 7%)	365,894
ANNUALIZED COSTS (AC):	DOC + IOC + CRC	852,278
BASELINE PM EMISSIONS (TPY) :	2.167 lb/MMBtu[b]; 6,767,100 MMBtu/yr	7,332.2
MAXIMUM PM EMISSIONS (TPY) :	Proposed PM Limit	88.0
REDUCTION IN PM EMISSONS (TPY):		7244.2
COST EFFECTIVENESS:	$ per ton of PM Removed	118

Footnotes:

[a] Unless otherwise specified, factors and cost estimates reflect OAQPS Cost Manual, Section 3, Sixth edition.

[b] Based on AP-42 factor of 15.6 lb/ton wet bagasse.

Table 5-4. BACT Determinations for SO_2 and SO_x for Biomass-Fired Industrial and Electric Utility Boilers

Company	State	RBLC ID	Permit Date	Throughput	Emission Limits: As Provided in LAER/BACT Clearinghouse	Emission Limits: Converted to lb/MMBtu[a]	Control Equipment Description	% Efficiency
Industrial Boilers								
S.D. Warren Co.--Blr No. 2	ME	ME-0021	11/27/2001	1,300 MMBtu/hr	0.27 lb/MMBtu	0.27	Sodium-based wet scrubber	--
US Sugar Corp.--Clewiston Blr No. 4	FL	PSD-FL-272A[c]	5/18/2001	633 MMBtu/hr	0.06 lb/MMBtu	0.06	Fuel oil S limit; bagasse firing	--
GULF STATES PAPER CORPORATION	AL	AL-0116	12/10/1997	775 MMBtu/hr	355.7 lb/hr	0.46	Proper design & oper. Wood ash alkalinity acts as scrubbing media.	--
Champion International	AL	AL-0112	12/9/1997	710 MMBtu/hr	0.03 lb/MMBtu	0.03	Wet scrubber with soda ash	95
Vaughan Furniture Company	VA	VA-0237	8/28/1996	28 MMBtu/hr	66.599 TPY[b]	0.54	Fuel spec: 0.75% sulfur coal and throughput limit	--
Willamette Industries - Marlboro Mill	SC	SC-0045	4/17/1996	470 MMBtu/hr	0.1 lb/MMBtu	0.1	No controls feasible	--
Scott Paper Company	WA	WA-0276	3/9/1995	718 MMBtu/hr	70 lb/hr 12 mo. avg.	0.10	Fuel spec: backup fuel limited to 0.05% sulfur distillate	--
KES CHATEAUGAY PROJECT	NY	NY-0055	12/19/1994	275 MMBtu/hr	0.03 lb/MMBtu	0.03	Fuel spec. oil less than 0.08% by wgt. sulfur content	--
Electric Utility Boilers								
New Hope Power Partnership	FL	FL-0069	1/31/2002	715 MMBtu/hr	0.20 lb/MMBtu (24-hr avg.)	0.20	Low S suppl. Fuel; ESP; SNCR; carbon injection	--
					0.06 lb/MMBtu (Annual avg.)	0.06	Low S suppl. Fuel; ESP; SNCR; carbon injection	--
Grayling Generating Station L.P.	MI	MI-882-89E	9/18/2001	523 MMBtu/hr	11.2 lb/hr (24-hr avg.)	0.02	Multicyclones, ESP, SNCR	--
MEAD CONTAINERBOARD	AL	AL-0099	1/15/1997	620 MMBtu/hr	0.02 lb/MMBtu	0.02	Combustion control	--
OKEELANTA POWER LIMITED PARTNERSHIP	FL	FL-0069	9/27/1993	715 MMBtu/hr	0.06 lb/MMBtu 30-day avg.	0.06	FUEL SPEC: LOW S SUPP. FUEL APCE INCLUDES	--
							ESP, SNCR, AND CARBON INJECTION.	--
OSCEOLA POWER LIMITED PARTNERSHIP	FL	FL-0070	9/27/1993	665 MMBtu/hr	0.06 lb/MMBtu 30-day avg.	0.06	FUEL SPEC: LOW SULFUR SUPPLEMENTAL FUEL	--
Wheelabrator Ridge Energy Inc.	FL	FL-0198	9/29/1992	630 MMBtu/hr	0.1 lb/MMBtu	0.1	Limespray dryer absorber	--
Multitrade Limited Partnership	VA	VA-0183	2/21/1992	373.7 MMBtu/hr	0.016 lb/MMBtu	0.016	No controls feasible	--

Reference: RACT/BACT/LAER Clearinghouse on EPA's Webpage, 2001.

[a] To convert from lb/hr, the emission limit was divided by the throughput rate. To convert from lb/day, assumed 24 hr/day operation.

[b] Assumed 8,760 hr/yr.

[c] This information obtained from actual PSD permit, not Clearinghouse.

Table 5-5. SO_2 Control Technolgy Feasibility Analysis for Boiler No. 8

SO2 Abatement Method	Technique Now Available	Estimated Efficiency	Feasible and Demonstrated? (Y/N)	Rank Based on Control Efficiency	Employed by Boiler No. 8? (Y/N)
Sorbent Injection	Sorbent Furnace Injection	50%	Y	6	N
	Sorbent Economiser Injection	50%	Y	6	N
	Sorbent Duct Injection	80%	Y	5	N
Wet Scrubbers	Packed Tower	99.9%	Y	1	N
	Plate	>90%	Y	4	N
	Columns	>90%	Y	4	N
	Venturi	>90%	Y	4	N
	Spray Chamber	>90%	Y	4	N
Spray Dry Scrubbers	Lime or Calcium Oxide	90 - 95%	Y	3	N
Dry Scrubbers	Circulating Fluid Bed (CFB)	>95%	Y	2	N
	Moving Bed	90%	Y	4	N
Regenerative Process	Elemental Sulphur Recovery	>95%	Y	2	N

Note: NTF = Not Technically Feasible.

Table 5-6. Cost Effectiveness of Lime Spray Drying FGD for Multipollutant Control, U.S. Sugar Boiler No. 8
Vendor: Wheelabrator APC

Cost Items	Cost Factors[a]	Cost ($)
DIRECT CAPITAL COSTS (DCC):		
Purchased Equipment Cost (PEC)		
Absorber + lime storage/delivery + Fabric Filter	Vendor quote[b]	5,372,053
Taxes	Florida sales tax, 6%	322,323
Total PEC:		5,694,376
Direct Installation	Vendor quote[b]	3,934,079
Items Excluded From Vendor Quote:		
Ductwork	100 ft @ $106/ft	10,000
FGD waste conveyors	Estimate	50,000
Foundations	12% of PEC	683,325
Water/air/electrical supply & piping	10% of PEC	569,438
Thermal insulation and lagging	Estimate	50,000
ID Fan	Estimate	100,000
Total Direct Installation:		5,396,842
Total DCC (PEC + Direct Installation):		11,091,217
INDIRECT CAPITAL COSTS (ICC):		
Engineering	2% of PEC (for excluded items)	113,888
Construction and field expenses	2% of PEC (for excluded items)	113,888
Contractor Fees	2% of PEC (for excluded items)	113,888
Startup	1% of PEC	56,944
Performance test	1% of PEC	56,944
Contingencies	3% of PEC	170,831
Total ICC:		626,381
TOTAL CAPITAL INVESTMENT (TCI):	DCC + ICC	11,717,599
DIRECT OPERATING COSTS (DOC):		
(1) Operating Labor		
Operator	0.5 hr/shift, $16/hr, 8760 hrs/yr	8,760
Supervisor	15% of operator cost	1,314
(2) Maintenance		
Operator	0.5 hr/shift, $16/hr, 8760 hrs/yr	8,760
Supervisor	15% of operator cost	1,314
(3) Operating Materials		
Reagent	54 lbs/hr, $65/ton	15,374
(4) Electriciy	700 KW, $0.04/KW-hr	245,280
(5) Dry Waste Disposal	115 lbs/hour, $30/ton	15,111
Total DOC:		295,913
INDIRECT OPERATING COSTS (IOC):		
Overhead	60% of oper. labor & maintenance	12,089
Property Taxes	1% of total capital investment	117,176
Insurance	1% of total capital investment	117,176
Administration	2% of total capital investment	234,352
Total IOC:		480,793
CAPITAL RECOVERY COSTS (CRC):	CRF of 0.0944 times TCI (20 yrs @ 7%)	1,106,141
ANNUALIZED COSTS (AC):	DOC + IOC + CRC	1,882,847
ANNUALIZED COSTS OF PM CONTROL ONLY:	Wet Cyclone/ESP[c]	852,278
INCREMENTAL ANNUALIZED COSTS OF ACID GAS CONTROL:	AC - ESP	1,030,569
BASELINE EMISSIONS (TPY) :	0.06 (lb SO_2)/MMBtu,	203.0
	0.0006 (lb HF)/MMBtu;	2.0
	0.00057 (lb HCL)/MMBtu	1.9
Total		206.9
MAXIMUM EMISSIONS (TPY) :	90% reduction	20.7
REDUCTION IN SO2, PM/PM10, HF, and HCL EMISSONS (TPY):		186.2
INCREMENTAL COST EFFECTIVENESS:	$ per ton of pollutants Removed	5,534

Footnotes:
[a] Unless otherwise specified, factors and cost estimates reflect OAQPS Cost Manual, Section 5, Sixth edition.
[b] Based on 2002 Wheelabrator APC cost quote for 760 MMBtu/hr Biomass Boiler, Cost Scaled by factor of (1031/760).
Includes: Absorber, lime storage/delivery, fabric filter, ductwork from SDA to fabric filter, structural support, process piping and valves, and system control instrumentation.
[c] Refer to Table 5-3 for the Wet Cyclone/ESP annualized cost.

Table 5-7. Cost Effectiveness of Lime Spray Drying FGD for Multipollutant Control, U.S. Sugar Boiler No. 8.
Vendor: Hamon Research-Cottrell

Cost Items	Cost Factors[a]	Cost ($)
DIRECT CAPITAL COSTS (DCC):		
Purchased Equipment Cost (PEC)		
Absorber + lime storage/delivery + Fabric Filter	Vendor quote[b]	7,291,612
Taxes	Florida sales tax, 6%	437,497
Total PEC:		7,729,109
Direct Installation	Vendor quote[b]	4,341,053
Items Excluded From Vendor Quote:		
Ductwork	100 ft @ $106/ft	10,000
FGD waste conveyors	Estimate	50,000
Foundations	12% of PEC	927,493
Water/air/electrical supply & piping	10% of PEC	772,911
Thermal insulation and lagging	Estimate	50,000
ID Fan	Estimate	100,000
Total Direct Installation:		6,251,457
Total DCC (PEC + Direct Installation):		13,980,565
INDIRECT CAPITAL COSTS (ICC):		
Engineering	2% of PEC (for excluded items)	154,582
Construction and field expenses	2% of PEC (for excluded items)	154,582
Contractor Fees	2% of PEC (for excluded items)	154,582
Startup	1% of PEC	62,515
Performance test	1% of PEC	62,515
Contingencies	3% of PEC (for retrofit installation)	187,544
Total DCC:		776,319
TOTAL CAPITAL INVESTMENT (TCI):	DCC + ICC	14,756,884
DIRECT OPERATING COSTS (DOC):		
(1) Operating Labor		
Operator	0.5 hr/shift, $16/hr, 8760 hrs/yr	8,760
Supervisor	15% of operator cost	1,314
(2) Maintenance		
Operator	0.5 hr/shift, $16/hr, 8760 hrs/yr	8,760
Supervisor	15% of operator cost	1,314
(3) Operating Marterials		
Reagent	54 lbs/hr, $65/ton	15,374
(4) Electriciy	700 KW, $0.04/KW-hr	245,280
(5) Dry Waste Disposal	115 lbs/hour, $30/ton	15,111
Total DOC:		295,913
INDIRECT OPERATING COSTS (IOC):		
Overhead	60% of oper. labor & maintenance	12,089
Property Taxes	1% of total capital investment	147,569
Insurance	1% of total capital investment	147,569
Administration	2% of total capital investment	295,138
Total IOC:		602,364
CAPITAL RECOVERY COSTS (CRC):	CRF of 0.0944 times TCI (20 yrs @ 7%)	1,393,050
ANNUALIZED COSTS (AC):	DOC + IOC + CRC	2,291,327
ANNUALIZED COSTS OF PM CONTROL ONLY:	Wet Cyclone/ESP[c]	852,278
INCREMENTAL ANNUALIZED COSTS OF ACID GAS CONTROL:	AC - ESP	1,439,049
BASELINE EMISSIONS (TPY):	0.06 (lb SO_2)/MMBtu,	203.0
	0.0006 (lb HF)/MMBru;	2.0
	0.00057 (lb HCL)/MMBtu	1.9
Total		206.9
MAXIMUM EMISSIONS (TPY):	90% reduction	20.7
REDUCTION IN SO_2, PM/PM_{10}, HF, and HCl EMISSONS (TPY):		186.2
INCREMENTAL COST EFFECTIVENESS:	$ per ton of pollutants Removed	7,727

Footnotes:
[a] Unless otherwise specified, factors and cost estimates reflect OAQPS Cost Manual, Section 5, Fifth edition.
[b] Based 2002 Hamon Research-Cottrell cost quote for 760 MMBtu/hr Biomass Boiler, Cost Scaled by factor of (850/760).
Includes: Absorber, lime storage/delivery, fabric filter, ductwork from SDA to fabric filter, structural support, process piping and valves, and system control instrumentation.
[c] Refer to Table 5-3 for the Wet Cyclone/ESP annualized cost.

Table 5-8. BACT Determinations for NO_x and NO_2 for Biomass-Fired Industrial and Electric Utility Boilers

Company	State	RBLC ID	Permit Date	Throughput	Emission Limits: As Provided in LAER/BACT Clearinghouse	Emission Limits: Converted to lb/MMBtu[a]	Control Equipment Description	% Efficiency
Industrial Boilers								
S.D. Warren Co.--Blr No. 2	ME	ME-0021	11/27/2001	1,300 MMBtu/hr	0.2 lb/MMBtu	0.2	SNCR	--
US Sugar Corp.--Clewiston Blr No. 4	FL	PSD-FL-272A[c]	5/18/2001	633 MMBtu/hr	0.20 lb/MMBtu	0.20	Bagasse firing	--
Atlantic Sugar Association	FL	PSD-FL-078B[c]	6/7/2001	255.3 MMBTU/HR	0.16 lb/MMBtu	0.16	Wet Scrubbers/Good Combustion Practices	--
GULF STATES PAPER CORP	AL	AL-0122	10/14/1998	98 MMBTU/HR	0.3 lb/MMBtu	0.3		--
POTLATCH CORPORATION	MN	MN-0033	6/24/1998	140 MMBTU/HR	0.3 lb/MMBtu	0.3	Water vapor inj. & staged combustion	--
WELLBORN CABINET INC	AL	AL-0107	2/3/1998	29.5 MMBTU/HR	13.57 lb/hr	0.46	Boiler design & comb. Control: oxygen trim, staged comb., steam injection, & overfire air.	31
GULF STATES PAPER CORPORATION	AL	AL-0116	12/10/1997	775 MMBTU/HR	0.3 lb/MMBtu	0.3	Low Nox natural gas & fuel oil burner	50
Champion International	AL	AL-0112	12/9/1997	710 MMBtu/hr	0.25 lb/MMBtu	0.25	Addition of tertiary air system	30
PLUM CREEK MFG - EVERGREEN FACILITY	MT	MT-0007	2/15/1997	225 MMBTU/HR	104 lb/hr	0.46		--
Vaughan Furniture Company	VA	VA-0237	8/28/1996	28 MMBtu/hr	24 TPY[b]	0.20	No controls feasible	--
Willamette Industries - Marlboro Mill	SC	SC-0045	4/17/1996	470 MMBtu/hr	0.3 lb/MMBtu	0.3	Good combustion control	--
U.S. SUGAR CORP--Clewiston	FL	FL-0094	1/31/1995	738 MMBTU/HR	0.25 lb/MMBtu	0.25	LOW NOX BURNERS	--
Scott Paper Company	WA	WA-0276	12/21/1994	718 MMBtu/hr	150 ppm @ 7% O_2 30/day avg	--	Combustion controls	--
KES CHATEAUGAY PROJECT	NY	NY-0055	12/19/1994	275 MMBTU/HR	0.23 lb/MMBtu	0.23	NO CONTROLS	--
WEYERHAEUSER CO.	AL	AL-0079	10/28/1994	91 MMBTU/HR	0.23 lb/MMBtu	0.23		--
NEWMAN PAPER CO.	PA	PA-0093	4/24/1992	129 MMBTU/HR	0.3 lb/MMBtu	0.3	LOW NOX BURNERS	--
Electric Utility Boilers								
Grayling Generating Station L.P.	MI	882-89E	9/18/2001	523 MMBTU/HR	78.5 lb/hr (24-hr avg.)	0.15	Multicyclones, ESP, SNCR	--
MEAD CONTAINERBOARD	AL	AL-0099	1/15/1997	620 MMBTU/HR	0.25 lb/MMBtu	0.25	COMBUSTION CONTROL	--
WEYERHAEUSER COMPANY	MS	MS-0026	5/9/1995	90 MMBTU HR	0.23 lb/MMBtu	0.23	COMBUSTION CONTROLS	--
GEORGIA PACIFIC CORP. - GLOSTEE FACILITY	MS	MS-0023	4/11/1995	244 MMBTU/HR	0.3 lb/MMBtu	0.3		--
Wheelabrator Ridge Energy Inc.	FL	FL-0198	9/29/1992	630 MMBtu/hr	0.14 lb/MMBtu	0.14	SNCR	--
Multitrade Limited Partnership	VA	VA-0183	2/21/1992	373.7 MMBtu/hr	0.1 lb/MMBtu	0.1	SNCR, Urea injection system	50

Reference: RACT/BACT/LAER Clearinghouse on EPA's Webpage, 2001.

[a] To convert from lb/hr, the emission limit was divided by the throughput rate. To convert from lb/day, assumed 24 hr/day operation.

[b] Assuming 8,760 hr/yr.

[c] This information obtained from actual PSD permit, not Clearinghouse.

Table 5-9. NO_x Control Technolgy Feasibility Analysis for Boiler No. 8

NO_x Abatement Method	Technique Now Available	Estimated Efficiency	Feasible and Demonstrated? (Y/N)	Rank Based on Control Efficiency	Employed by Boiler No. 8? (Y/N)
1. Removal of nitrogen	Ultra-Low Nitrogen Fuel	No Data	Y	4	Y
2. Oxidation of NO_x with subsequent absorption.	Inject Oxidant	60 - 80%	NTF	NTF	N
	Non-Thermal Plasma Reactor (NTPR)	60 - 80%	NTF	NTF	N
3. Chemical reduction of NO_x	Selective Catalytic Reduction (SCR)	35 - 80%	NTF	NTF	N
	Selective Non-Catalytic Reduction (SNCR)	35 - 80%	N	1	N
	$SCONO_x$™	35 - 80%	NTF	NTF	N
4. Reducing residence time at peak temperature	Air Staging of Combustion	50 - 65%	Y	2	Y
	Fuel Staging of Combustion	50 - 65%	Y	2	Y
	Inject Steam	50 - 65%	Y	2	N
5. Reducing peak temperature	Flue Gas Recirculation (FGR)	15 -25%	Y	3	N
	Natural Gas Reburing (NGR)	15 -25%	Y	3	N
	Over Fire Air (OFA)	15 -25%	Y	3	Y
	Less Excess Air (LEA)	15 -25%	Y	3	Y
	Combustion Optimization	15 -25%	Y	3	Y
	Reduce Air Preheat	15 -25%	Y	3	N
	Low NO_x Burners (LNB)	15 -25%	NTF	NTF	N

Note: NTF = Not Technically Feasible.

Table 5-10. Cost Effectiveness of SNCR, U.S. Sugar Boiler No. 8

Cost Items		Cost Factors[a]	Cost ($)
DIRECT CAPITAL COSTS (DCC):			
	Purchased Equipment Cost (PEC)		
	SNCR Basic Process	Vendor quote[b]	421,000
	Ammonia Storage Tank	10,000 Gallon, includes valves and transfer station	170,000
	Emissions Monitoring	15% of equipment cost	42,100
	Foundation and Structure Support	8% of equipment cost	33,680
	Freight	5% of equipment cost	21,050
	Taxes	Florida sales tax, 6%	25,260
Total PEC:			713,090
	Direct SNCR Installation	Vendor quote[b]	263,000
Total DCC:			976,090
INDIRECT CAPITAL COSTS (ICC):			
	Contractor Fees +	10% of PEC	97,609
	Performance test +	1% of PEC	9,761
	Contingencies	5% of PEC	48,805
Total DCC:			156,174
TOTAL CAPITAL INVESTMENT (TCI):		DCC + ICC	1,845,354
DIRECT OPERATING COSTS (DOC):			
(1)	Operating Labor		
	Operator	20 hours/week, $16/hr, 52 weeks/yr	$16,640
	Supervisor	15% of operator cost	2,496
(2)	Maintenance	Engineering estimate, 2% Process Equipment	11,820
(3)	Urea Cost	40 gal/hr, $0.85/gal, 6570 hr/yr	223,380
Total DOC:			254,336
INDIRECT OPERATING COSTS (IOC):			
	Overhead	60% of oper. labor & maintenance	18,574
	Property Taxes	1% of total capital investment	18,454
	Insurance	1% of total capital investment	18,454
	Administration	2% of total capital investment	36,907
Total IOC:			92,388
CAPITAL RECOVERY COSTS (CRC):		CRF of 0.0944 times TCI (20 yrs @ 7%)	174,201
ANNUALIZED COSTS (AC):		DOC + IOC + CRC	520,925
BASELINE NO_x EMISSIONS (TPY) :		0.22 lb/MMBtu; 6,767,100 MMBtu/yr	744.4
MAXIMUM NO_x EMISSIONS (TPY) :		50% reduction	372.2
REDUCTION IN NO_x EMISSONS (TPY):			372.2
COST EFFECTIVENESS:		$ per ton of NO_x Removed	1,400

Footnotes:

[a] Unless otherwise specified, factors and cost estimates reflect OAQPS Cost Manual, Section 3, Sixth edition.

[b] 2003 DNT De-Nox Technologies -- SNCR and Dry Urea System Proposal

Table 5-11. Cost Effectiveness of Natural Gas Reburn, U.S. Sugar Boiler No.8

Cost Items	Cost Factors[a]	Cost ($)
DIRECT CAPITAL COSTS (DCC):		
Purchased Equipment Cost (PEC)		
Basic Process	Vendor quote[b]	559,211
Engineering Study	Vendor quote[b]	100,000
Taxes	Florida sales tax, 6%	33,553
Total DCC:		692,763
INDIRECT CAPITAL COSTS (ICC):		
Contractor Fees	10% of PEC	69,276
Performance test	1% of PEC	6,928
Contingencies	5% of PEC	34,638
Total ICC:		110,842
TOTAL CAPITAL INVESTMENT (TCI):	DCC + ICC	803,605
DIRECT OPERATING COSTS (DOC):		
(1) Operating Labor		
Operator	8 hours/week, $16/hr, 52 weeks/yr	$6,656
Supervisor	15% of operator cost	998
(2) Maintenance	Engineering estimate, 5% of Basic Process Cost	27,961
(3) Natural Gas Cost	Displace 20% of Bagasse with Natural Gas	6,767,100 [c]
Total DOC:		6,802,715
INDIRECT OPERATING COSTS (IOC):		
Overhead	60% of oper. labor & maintenance	21,369
Property Taxes	1% of total capital investment	8,036
Insurance	1% of total capital investment	8,036
Administration	2% of total capital investment	16,072
Total IOC:		53,513
CAPITAL RECOVERY COSTS (CRC):	CRF of 0.0944 times TCI (20 yrs @ 7%)	75,860
ANNUALIZED COSTS (AC):	DOC + IOC + CRC	6,932,088
BASELINE NO_x EMISSIONS (TPY) :	0.22 lb/MMBtu; 6,767,100 MMBtu/yr	744.4
MAXIMUM NO_x EMISSIONS (TPY) :	25% reduction	558.3
REDUCTION IN NO_x EMISSONS (TPY):		186.1
COST EFFECTIVENESS:	$ per ton of NO_x Removed	37,249

Footnotes:

[a] Unless otherwise specified, factors and cost estimates reflect OAQPS Cost Manual, Section 3, Sixth edition.

[b] Based on 2003 Coen cost quote, includes materials, installation, and start-up.

[c] Operational costs of reburn includes displacing 20% of the solid fuel with natural gas, 1,353,420 MMBtu/yr, natural gas cost $5

Table 5-12. BACT Determinations for VOC for Biomass-Fired Industrial and Electric Utility Boilers

Company	State	RBLC ID	Permit Date	Throughput	Emission Limits: As Provided in LAER/BACT Clearinghouse	Emission Limits: Converted to lb/MMBtu[a]	Control Equipment Description
Industrial Boilers							
S.D. Warren Co.--Blr No. 2	ME	ME-0021	11/27/2001	1,300 MMBtu/hr	0.007 lb/MMBtu	0.007	Good combustion practices
US Sugar Corp.--Clewiston Blr No. 4	FL	PSD-FL-272A[b]	5/18/2001	633 MMBtu/hr	0.50 lb/MMBtu	0.50	Good combustion practices
Atlantic Sugar Association	FL	PSD-FL-078B[c]	6/7/2001	255.3 MMBtu/hr	0.25 lb/MMBtu	0.25	Wet Scrubbers/Good Combustion Practices
Scott Paper Company	WA	WA-0276	10/14/1998	718 MMBtu/hr	34.5 lb/hr	0.05	Combustion control, boiler design
GULF STATES PAPER CORP	AL	AL-0122	10/14/1998	98 MMBtu/hr	0.1 lb/MMBtu	0.1	Multicyclone and ESP
Sierra Pacific Industries--Quincy	CA	CA-0930	5/13/1998	245.3 MMBtu/hr	12.3 lb/hr	0.05	High pressure overfire air
GULF STATES PAPER CORPORATION	AL	AL-0116	12/10/1997	775 MMBtu/hr	0.03 lb/MMBtu	0.03	Proper boiler design and operation
Champion International	AL	AL-0112	12/9/1997	710 MMBtu/hr	0.03 lb/MMBtu	0.03	Good design and operation
Vaughan Furniture Company	VA	VA-0237	8/28/1996	28 MMBtu/hr	1.7 TPY	--	Combustion control, boiler design
Willamette Industries - Marlboro Mill	SC	SC-0045	4/17/1996	470 MMBtu/hr	0.1 lb/MMBtu	0.1	Good combustion control
SOUTHERN SOYA CORPORATION	SC	SC-0035	10/2/1995	58.2 MMBtu/hr	0.05 lb/MMBtu	0.05	Good combustion practices
PLUM CREEK MFG LP-COLUMBIA FALLS OP'N	MT	MT-0004	7/26/1995	50 MMBtu/hr	131.1 lb/hr	2.62	Good combustion practices
KES CHATEAUGAY PROJECT	NY	NY-0055	12/19/1994	275 MMBtu/hr	0.1 lb/MMBtu	0.1	NO CONTROLS
Plum Creek MFG LP-Columbia Falls Op'n	MT	MT-0004	10/28/1994	50 MMBtu/hr	131.1 lb/hr	2.6	Good combustion practices
WEYERHAEUSER CO.	AL	AL-0079	10/28/1994	91 MMBtu/hr	0.05 lb/MMBtu	0.05	
Weyerhaeuser Co.	AL	AL-0079	7/1/1993	91 MMBtu/hr	0.05 lb/MMBtu	0.05	--
Gulf States Paper Corp	AL	AL-0122	7/1/1993	98 MMBtu/hr	0.1 lb/MMBtu	0.1	Multicyclone and ESP
Electric Utility Boilers							
New Hope Power Partnership	FL	FL-0069	1/31/2002	715 MMBtu/hr	0.06 lb/MMBtu, 30-day avg.	0.06	Clean fuels
MEAD CONTAINERBOARD	AL	AL-0099	1/15/1997	620 MMBtu/hr	0.03 lb/MMBtu	0.03	COMBUSTION CONTROL
GEORGIA PACIFIC CORP. - GLOSTEE FACILITY	MS	MS-0023	4/11/1995	244 MMBtu/hr	0.02 lb/MMBtu	0.02	
Wheelabrator Ridge Energy Inc.	FL	FL-0198	9/29/1992	630 MMBtu/hr	0.035 lb/MMBtu	0.035	Good combustion practices
Multitrade Limited Partnership	VA	VA-0183	2/21/1992	373.7 MMBtu/hr	0.07 lb/MMBtu	0.07	Boiler Design

Reference: RACT/BACT/LAER Clearinghouse on EPA's Webpage, 2001.

[a] To convert from lb/hr, the emission limit was divided by the throughput rate.

[b] This information obtained from actual PSD permit, not Clearinghouse.

Table 5-13. Add-On VOC Control Technolgy Feasibility Analysis for Boiler No. 8

VOC Abatement Method	Technique Now Available	Estimated Efficiency	Feasible and Demonstrated? (Y/N)	Rank Based on Control Efficiency	Employed by Boiler No. 8? (Y/N)
Refrigerated Condensors	Surface	Variable	NTF	NTF	N
	Contact	Variable	NTF	NTF	N
Carbon Adsorbers	Fixed Regenerative bed	Variable	NTF	NTF	N
	Disposable/Rechargeable Cannisters	Variable	NTF	NTF	N
	Traveling Bed Adsorbers	Variable	NTF	NTF	N
	Fluid Bed Adsorbers	Variable	NTF	NTF	N
	Chromatographic Baghouse	Variable	NTF	NTF	N
Destruction Controls	Flares	Variable	NTF	NTF	N
Incinerators	Thermal	>80%	NTF	NTF	N
	Catalytic	>80%	NTF	NTF	N

Note: NTF = Not Technically Feasible

Table 5-14. BACT Determinations for Sulfuric Acid Mist for Biomass-Fired Electric Utility Boilers

Company	State	RBLC ID	Permit Date	Throughput	Emission Limits: As Provided in LAER/BACT Clearinghouse	Emission Limits: Converted to lb/MMBtu[a]	Control Equipment Description
Grayling Generating Station L.P.	MI	882-89E	9/18/2001	523 MMBtu/hr	0.003 lb/MMBtu	0.003	Multicyclones, ESP, SNCR
MEAD CONTAINERBOARD	AL	AL-0099	1/15/1997	620 MMBtu/hr	0.001 lb/MMBtu	0.001	COMBUSTION CONTROL

Reference: RACT/BACT/LAER Clearinghouse on EPA's Webpage, 2001.

[a] To convert from lb/hr, the emission limit was divided by the throughput rate.

6.0 AIR QUALITY IMPACT ANALYSIS

6.1 SIGNIFICANT IMPACT ANALYSIS APPROACH

6.1.1 SITE VICINITY

The general modeling approach followed 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 at any location beyond the plant's restricted boundaries.

If the 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

Generally, if the facility undergoing the modification is 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 PSD Class I area of Everglades NP is located approximately 102 km from the Clewiston Mill. Because Everglades NP is located within 200 km of the Mill, 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 have never been promulgated as rules, but are the currently accepted criteria to determine whether a proposed project will incur a significant impact on a PSD Class I area.

If the project-only impacts at the PSD Class I area are above the proposed EPA PSD Class I significant impact levels, then an 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 air quality related values (AQRV). This analysis includes an evaluation of regional haze degradation.

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, for each pollutant which is emitted above the significant emission rate, air modeling analyses are required to determine if the project-only impacts are predicted to be greater than the significant impact levels and *de minimis* monitoring levels. These analyses consider impacts due to the proposed project 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.

To predict the maximum annual and short-term concentrations for the proposed Boiler No. 8 modification, the modeling approach was divided into screening and refined phases. Concentrations are predicted for the screening phase using a coarse receptor grid and a 5-year meteorological data record. If the highest concentration is predicted at a receptor that lies in an area where the receptor spacing is more than 100 m, then a refined analysis is performed in that area using a receptor grid of greater resolution. Modeling refinements are performed using a receptor spacing of 100 m or less with a receptor grid centered on the screening receptor at which the maximum concentration was predicted. The air dispersion model is then executed with the refined grid for the entire year of meteorology during which the screening concentration occurred.

If the modification'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 and PSD increments.

Generally, when using 5-years of meteorological data for the analysis, the highest annual and the highest, second-highest (HSH) short-term concentrations are compared to the applicable AAQS and allowable PSD increments. [Note that for determining compliance with the 24-hour AAQS for PM_{10}, the sixth highest predicted concentration in 5 years (i.e., H6H), instead of the HSH, is used for comparison to the applicable 24-hour AAQS.]

The HSH concentration is calculated 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 air quality standards and allowable PSD increments, which permit a short-term average concentration to be exceeded once per year at each receptor.

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 project 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 the project site, plus nearby PSD increment-affecting sources at other facilities.

6.3.2 PSD CLASS I ANALYSIS

For each pollutant for which a significant impact is predicted at the PSD Class I area, a PSD Class I analysis is required. The PSD Class I analysis is a cumulative source analysis that 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 the project site, plus the impacts from PSD increment-affecting sources at other facilities.

6.4 MODEL SELECTION

The selection of an air quality model to calculate air quality impacts was based on its applicability to simulate impacts in areas surrounding the Clewiston Mill, as well as at the PSD Class I area of interest. Two air quality dispersion models were selected and used in these analyses to address air quality impacts for the proposed Boiler No. 8 modification. These models were:

- The Industrial Source Complex Short Term dispersion model with the Plume Rise Model Enhancement (PRIME) downwash algorithm, referred to as the ISC-PRIME model; and
- The California Puff model (CALPUFF).

The ISC-PRIME dispersion model (EPA, 2003) was used to evaluate the pollutant impacts in nearby areas surrounding the Clewiston Mill. This model was previously used to address air quality impacts due to the modifications proposed for Boiler No. 4 and the Sugar Refinery at the Clewiston Mill, and was approved for use by both the FDEP and EPA (1999). EPA's approval letter is provided in Appendix I. Therefore, to be consistent with the previous air modeling performed at the Clewiston Mill and based on the FDEP's and EPA's approval of its use, the ISC-PRIME model was used to determine the project's impacts for comparison to PSD Class II significant impact levels.

The ISC-PRIME model is maintained by the EPA on its Internet website, Support Center for Regulatory Air Models (SCRAM), within the Technical Transfer Network (TTN). A listing of ISC-PRIME model features is presented in Table 6-1. The ISC-PRIME model is designed to calculate hourly concentrations based on hourly meteorological data (i.e., wind direction, wind speed, atmospheric stability, ambient temperature, and mixing heights). The ISC-PRIME model is applicable to sources located in either flat or rolling terrain where terrain heights do not exceed stack heights. These areas are referred to as simple terrain. The model can also be applied in areas where the terrain exceeds the stack heights. These areas are referred to as complex terrain.

In this analysis, the EPA regulatory default options were used to predict all maximum impacts. The ISC-PRIME model can be executed in the rural or urban land use mode that affects stability dispersion coefficients, wind speed profiles, and mixing heights. Land use can be characterized based on a scheme recommended by EPA (Auer, 1978). If more than 50 percent land use within a 3-km radius around a project is classified as industrial or commercial, or high-density residential, then the urban option should be selected. Otherwise, the rural option is appropriate. Based on the land-use within a 3-km radius of the Clewiston Mill, the rural dispersion coefficients were used in the modeling analysis. Also, since the terrain around the facility is flat to gently rolling, the simple terrain feature of the model was selected. The ISC-PRIME model was used to provide maximum concentrations for the annual and 24-, 8-, 3-, and 1-hour averaging times.

At distances beyond 50 km from a source, the CALPUFF model, Version 5.5 (EPA, 2002), is recommended for use by the EPA and the Federal Land Manager (FLM). Major features of the CALPUFF model are 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 CALPUFF model is maintained by the EPA on the SCRAM internet website. 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).

In addition, updates to the modeling methods and assumptions were followed based on discussion with the FLM.

The CALPUFF model was used to perform a significant impact analysis for the proposed project at the PSD Class I area of Everglades NP and to assess the project's impact on regional haze and total nitrogen and sulfur deposition levels. A more detailed description of the assumptions and methods used for the CALPUFF model is presented in Appendix J.

6.5 METEOROLOGICAL DATA

Meteorological data used in the ISC-PRIME model to determine air quality impacts consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) office located at the Palm Beach International Airport (PBI). The 5-year period of meteorological data was from 1987 through 1991. The NWS office at PBI is located approximately 82 km (51 miles) east of the Clewiston Mill site and is the closest primary weather station to the study area considered to have meteorological data representative of the site. The PBI station meteorological data have been used for numerous air modeling studies within the sugar industry and for the Clewiston Mill.

CALMET, the meteorological preprocessor to CALPUFF, was used to develop a 3-dimensional wind field necessary to perform the air modeling analysis to evaluate pollutant impacts at each PSD Class I area. The modeling domain consisted of a rectangular 3-dimensional grid that extended from approximately 79.0 to 83.5 degrees longitude and from 23.75 to 28.0 degrees latitude. The modeling domain includes the following meteorological and land use parameters:

- Surface weather data,
- Upper air data,
- A 1-degree land use data,
- A 1-degree Digital Elevation Model (DEM) terrain data,
- Mesoscale Model - Generation 4 (MM4) data (for initializing the wind field) for 1990; MM5 data for 1992 and 1996, and
- Hourly precipitation data.

These data were obtained and processed for the calendar years 1990, 1992, and 1996, the years for which MM4 and MM5 data are available on CD. The CALMET wind field and the CALPUFF model options used were consistent with the suggestions of the FLMs. Meteorological data used with the CALPUFF model consist of a CALMET-developed wind field covering south Florida. More detailed descriptions of the assumptions and methods used for processing the meteorological data and establishing the model domain are presented in Appendix J.

6.6 EMISSION INVENTORY

6.6.1 SIGNIFICANT IMPACT ANALYSIS

The proposed Boiler No. 8 modification will result in a significant net emissions increase for SO_2, NO_x, and PM_{10}. Although there will not be a significant net emissions increase for CO, modeling was performed for CO to ensure that there would not be a significant impact due to the proposed project. The proposed emissions and stack parameters for Boiler No. 8's future operating condition are summarized in Tables 2-2, 2-3, and 2-5. Because there were separate short-term and annual emission rates for the pollutants, separate modeling runs were performed for the appropriate averaging periods for each pollutant.

For PM_{10} emissions from the Clewiston Mill sugar refinery, there will be annual emission increases for twelve (12) refinery sources and short-term emission increases for four (4) refinery sources.

Eleven (11) of the twelve (12) refinery sources discharge horizontally. This was represented in the air modeling analysis by setting the exit velocity for these sources to 0.01 m/s. The stack locations for each source are relative to the location of Boiler No. 4's stack and are oriented to true north. A summary of the PM_{10} emissions and operating parameters for these sources is presented in Appendix B.

In addition, there will be PM_{10} emission increases due to changes at the bagasse handling system. (see tables in Appendix G for the existing and future operations). For existing and future operations, the activities at the storage pile were modeled as an area source. For existing operations, these activities included the reversible outside bagasse belt conveyor to outside storage bagasse pile; front-end loader; north/south bagasse pile elevator to reversible outside bagasse belt conveyor; and reversible outside bagasse belt conveyor to return bagasse belt conveyor. For future operations, these activities included the front-end loader to reclaim A/B; reclaim A/B to transfer belt conveyor; and transfer belt to return outside bagasse belt conveyor. For both existing and future operations, the area source was assumed to have a release height of about 16 ft (5 m) with a length and width of 200 ft (61 m).

All of the remaining sources for the bagasse handling system were modeled as a series of four volume sources located adjacent to the boiler buildings. To account for the enhanced turbulence due to these tall buildings and structures, each volume source was assumed to have a height of 88 ft and length and width of 120 ft based on the dimensions of the adjacent buildings.

The PM_{10} emissions for the bagasse handling system sources were different for the 7-month sugar harvesting season and 5-month non-harvesting season. The harvest season was assumed to begin and end on November 1 and May 31, respectively. Part-year source operation was input to the air modeling analysis by using monthly emission factors. An emission factor of 1 is used for months when a source was operating, while an emission factor of zero was used for non-operating months. For existing operations, the source emissions were modeled as negative.

The current emissions and stack operating parameters for Boiler No. 3 are presented in Appendix B. The emissions for this source were modeled as negative since this source will be shutdown when Boiler No. 8 becomes operational. For Boiler No. 3, the emissions were modeled during the 7-month sugar harvesting season, beginning and ending on November 1 and May 31, respectively. Part-year source operation was input to the air modeling analysis by using monthly emission factors, as previously described.

For the PSD Class I area of the Everglades NP, concentrations were predicted for the project with the CALPUFF model based on the operating scenario with the maximum hourly emissions. The Mill's UTM east and north coordinates were assumed to be 506,100 and 2,956,900 m, respectively, in UTM Zone 18. Because the PM_{10} emissions from the bagasse handling system are mainly fugitive emissions released at low levels, these emission sources were not included in the Class I impact analysis.

6.6.2 AAQS AND PSD CLASS II ANALYSES

As discussed in Section 6.10, the maximum impacts from the proposed project were predicted to be less than the significant impact levels for all pollutants. As a result, a cumulative source analysis is not required to demonstrate compliance with the PM_{10}, SO_2, and NO_x AAQS and PSD Class II increments.

6.6.3 PSD CLASS I ANALYSIS

The maximum project-only impacts at the PSD Class I area of the Everglades NP are predicted to be less than the proposed Class I significant impact levels for all pollutants. As a result, a cumulative source impact analysis is not required to demonstrate compliance with the PSD Class I increments.

6.7 RECEPTOR LOCATIONS

6.7.1 SITE VICINITY

For predicting maximum concentrations in the vicinity of the Clewiston Mill and for comparison to the PSD Class II significant impact levels, both discrete and gridded polar receptors were used. The number of discrete receptors was 264, which included 124 located at the Mill's restricted property line and 140 additional offsite receptors located at distances of 0.6, 0.9, 1.2, 1.5, and 1.8 km from Boiler No. 4's stack location, used as the model origin (i.e., x and y coordinates were 0.0 and 0.0, respectively). A summary of the Mill's boundary receptors is presented in Table 6-3. An additional 324 receptors were included in a polar grid, with 36 radials extending out from the origin. Along each radial, receptors were located at distances of 2.0, 3.0, 4.0, 5.0, 7.0, 10.0, 15.0, 20.0, and 25.0 km from the origin.

Modeling refinements were performed, as needed, by employing a polar receptor grid with a maximum spacing of 100 m along each radial and an angular spacing between radials of 1 or 2 degrees. At a distance of less than 575 m, the angular distance between receptors is 100 m or less and addition refinements may not be performed. At distances of 600 m or beyond, modeling refinements are performed by employing an angular spacing between radials of 1 or 2 degrees and a spacing interval along radials of 100 m.

6.7.2 CLASS I AREA

Maximum pollutant concentrations were predicted with the CALPUFF model using 126 discrete receptors located along the border of the PSD Class I area of the Everglades NP. These receptors were also used in the AQRV analysis to address the project's impacts on regional haze and sulfur and nitrogen deposition. A listing of Class I receptors used in the modeling analysis is provided in Table 6-4.

6.8 BACKGROUND CONCENTRATIONS

Because the Boiler No. 8 project impacts were predicted to be less than the PSD Class II and I significant impact levels, cumulative impact analyses were not required to demonstrate compliance with AAQS and PSD increments. As a result, development of background concentrations was not required.

6.9 BUILDING DOWNWASH EFFECTS

The building dimensions considered in the air modeling analysis for the Clewiston Mill are presented in Table 6-5. A computer-generated layout of the property boundaries, buildings, and stack locations is presented in Figure 6-1. Additional plots are included in Appendix K.

All direction-specific building parameters were calculated with the Building Profile Input Program, Version 95039, modified to process the additional direction-specific building information for ISC-PRIME (BPIPPRM). BPIPPRM was used to generate building data for the ISC-PRIME model input. A detailed listing of direction-specific building data used in the air modeling analysis is provided in Appendix K.

6.10 MODEL RESULTS

6.10.1 PSD CLASS II SIGNIFICANT IMPACT ANALYSIS

The maximum SO_2, PM_{10}, CO, and NO_2 concentrations predicted for the Boiler No. 8 project only for the PSD Class II significant impact screening analysis are presented in Tables 6-6 and 6-7 for Boiler No. 8 operating at 100 percent and 80 percent load, respectively. Note that 80 percent load operation for Boiler No. 8 was modeled only for the short-term averaging times, since operational load could affect short-term impacts. These maximum predicted concentrations include the impacts from Boiler No. 8, the changes in PM_{10} emissions from the refinery sources, the changes in fugitive PM_{10} emissions from the bagasse handling system, and the shutdown of Boiler No. 3.

The results from the refined modeling analysis are presented in Table 6-8. The maximum SO_2, PM_{10}, CO, and NO_2 concentrations predicted for the proposed project are below the significant impact levels for all pollutants. For PM_{10}, the maximum predicted impacts are primarily due to the sources associated with the bagasse handling system.

The modeling results presented in Tables 6-6 through 6-8 are based on 100 percent bagasse firing, which is the worst case emissions scenario. However, since higher NO_2 impacts could occur due to firing fuel oil (due to lower stack gas velocity and temperature than those for bagasse-firing), annual average NO_2 concentrations were predicted for the Boiler No. 8 project. These results, shown in Table 6-9, are predicted to be slightly higher than for bagasse-firing, but below the significant impact levels. The summaries of the ISC-PRIME results for the screening and refined analyses with example input files are presented in Appendix L.

Because the project's impacts are predicted to be below the PSD Class II significant impact levels for all pollutants, additional modeling analyses are not required to be performed to address compliance with AAQS and PSD Class II increments.

6.10.2 BOILER NO. 8 IMPACTS ONLY

The maximum pollutant SO_2, PM_{10}, CO, and NO_2 concentrations predicted for Boiler No. 8 only at 100 percent and 80 percent load are presented in Tables 6-10 and 6-11, respectively. These results are based on 100 percent bagasse firing in Boiler No. 8, which produces the maximum emissions. As shown, the maximum pollutant concentrations due to Boiler No. 8 only are predicted to be well below the significant impact levels. The summaries of the ISC-PRIME results and example in put files are presented in Appendix L.

6.10.3 PSD CLASS I SIGNIFICANT IMPACT ANALYSIS

The maximum SO_2, PM_{10}, and NO_2 concentrations predicted for the Boiler No. 8 project for the PSD Class I significant impact analysis at the Everglades NP are presented in Table 6-12. All of the maximum impacts are predicted to be below the PSD Class I significant impact levels.

Because the proposed project's impacts are predicted to be below the PSD Class I significant impact levels for all pollutants, additional modeling analyses are not required to be performed to address compliance with PSD Class I increments.

6.10.4 SULFURIC ACID MIST IMPACTS

There are no AAQS or PSD increments for sulfuric acid mist (SAM). However, SAM impacts are required for the additional impact analysis. The maximum SAM impacts due to the project in the site vicinity for the annual, 24-, 8-, 3-, and 1-hour averaging times are presented in Table 6-13. The summaries of the ISC-PRIME results and example input files are presented in Appendix L.

6.10.5 CONCLUSIONS

Based on the air quality modeling analyses, the maximum pollutant concentrations due to the proposed Boiler No. 8 modification's emissions are predicted to be less than the PSD Class II and I significant impact levels for all pollutants. As a result, more detailed modeling analyses are not required to demonstrate compliance with AAQS and PSD increments. The results of the modeling analysis demonstrate the proposed project will not have a significant affect on air quality and will comply with all applicable AAQS and PSD increments.

Table 6-1. Major Features of the ISC-PRIME Model

ISC-PRIME Model Features
• Polar or Cartesian coordinate systems for receptor locations
• Rural or one of three urban options which affect wind speed profile exponent, dispersion rates, and mixing height calculations
• Plume rise due to momentum and buoyancy as a function of downwind distance for stack emissions (Briggs, 1969, 1971, 1972, and 1975; Bowers, et al., 1979).
• Procedures suggested by Huber and Snyder (1976); Huber (1977); and Schulman and Scire (1980) for evaluating building wake effects
• Procedures suggested by Briggs (1974) for evaluating stack-tip downwash
• Separation of multiple emission sources
• Consideration of the effects of gravitational settling and dry deposition on ambient particulate concentrations
• Capability of simulating point, line, volume, area, and open pit sources
• Capability to calculate dry and wet deposition, including both gaseous and particulate precipitation scavenging for wet deposition
• Variation of wind speed with height (wind speed-profile exponent law)
• Concentration estimates for 1 hour to annual average times
• Terrain-adjustment procedures for elevated terrain including a terrain truncation algorithm for ISC-PRIME; a built-in algorithm for predicting concentrations in complex terrain
• Consideration of time-dependent exponential decay of pollutants
• The method of Pasquill (1976) to account for buoyancy-induced dispersion
• A regulatory default option to set various model options and parameters to EPA recommended values (see text for regulatory options used)
• Procedure for calm-wind processing including setting wind speeds less than 1 m/s to 1 m/s.

Note: ISC-PRIME = Industrial Source Complex Short-Term Plume Rise Model Enhancement.

References:

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Table 6-2. Major Features of the CALPUFF Model, Version 5.5

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, 2002.

Table 6-3. Property Boundary Receptors Used in the Air Modeling Analyses for U. S. Sugar Clewiston Mill

Receptor No.	Direction (degrees)	Distance (m)	Receptor No.	Direction (degrees)	Distance (m)	Receptor No.	Direction (degrees)	Distance (m)
1	10	463	43	112	828	85	190	1,135
2	20	485	44	114	762	86	192	1,143
3	32	538	45	116	707	87	194	1,152
4	34	550	46	118	663	88	196	1,163
5	36	564	47	120	675	89	198	1,176
6	38	579	48	122	690	90	200	1,178
7	40	595	49	124	706	91	202	1,076
8	42	614	50	126	723	92	204	991
9	44	634	51	128	742	93	206	919
10	46	656	52	130	764	94	208	858
11	48	681	53	132	787	95	210	806
12	50	709	54	134	813	96	212	760
13	52	741	55	136	842	97	214	721
14	54	776	56	138	874	98	216	686
15	56	815	57	140	910	99	218	655
16	58	861	58	142	950	100	220	627
17	60	912	59	144	995	101	222	602
18	62	971	60	146	1,046	102	224	580
19	64	1,040	61	148	1,104	103	226	560
20	66	1,121	62	150	1,170	104	228	542
21	68	1,217	63	152	1,246	105	230	526
22	70	1,333	64	154	1,244	106	240	465
23	72	1,476	65	156	1,224	107	250	429
24	74	1,654	66	158	1,206	108	260	409
25	76	1,885	67	158	1,500	109	270	403
26	78	2,062	68	160	1,190	110	280	409
27	80	2,048	69	160	1,200	111	290	429
28	82	2,037	70	162	1,176	112	300	465
29	84	2,028	71	162	1,800	113	310	526
30	86	2,022	72	164	1,163	114	312	542
31	88	2,018	73	166	1,152	115	314	560
32	90	2,017	74	168	1,143	116	316	580
33	92	2,018	75	170	1,135	117	318	602
34	94	2,022	76	172	1,129	118	320	595
35	96	2,028	77	174	1,124	119	322	579
36	98	2,037	78	176	1,121	120	324	564
37	100	1,785	79	178	1,119	121	326	550
38	102	1,491	80	180	1,118	122	328	538
39	104	1,281	81	182	1,119	123	330	527
40	106	1,125	82	184	1,121	124	340	485
41	108	1,003	83	186	1,124	125	350	463
42	110	906	84	188	1,129	126	360	456

Note: Distances are relative to Boiler No. 4's stack location.

Table 6-4. Receptor Locations Used in the PSD Class I Modeling Analyses
at the Everglades National Park

Receptor	UTM Coordinates (m)*		Receptor	UTM Coordinates (m)*		Receptor	UTM Coordinates (m)*	
No.	East	North	No.	East	North	No.	East	North
1	557,000	2,789,000	46	529,000	2,848,600	91	498,000	2,832,500
2	556,600	2,792,000	47	528,000	2,848,600	92	497,000	2,832,500
3	556,000	2,796,000	48	527,000	2,848,600	93	496,000	2,832,500
4	553,000	2,796,500	49	526,000	2,848,600	94	495,000	2,832,500
5	548,000	2,796,500	50	525,000	2,848,600	95	495,000	2,833,000
6	542,700	2,796,500	51	524,000	2,848,600	96	495,000	2,834,000
7	542,700	2,800,000	52	523,000	2,848,600	97	495,000	2,835,000
8	542,700	2,805,000	53	522,000	2,848,600	98	495,000	2,836,000
9	542,700	2,810,000	54	521,000	2,848,600	99	494,500	2,837,000
10	542,000	2,811,000	55	520,000	2,848,600	100	491,500	2,841,000
11	541,300	2,814,000	56	519,000	2,848,600	101	488,500	2,845,500
12	542,700	2,816,000	57	518,000	2,848,600	102	483,000	2,848,500
13	544,100	2,820,000	58	517,000	2,848,600	103	480,000	2,852,500
14	543,500	2,824,600	59	516,000	2,848,600	104	475,000	2,854,000
15	545,000	2,829,000	60	515,000	2,848,600	105	473,500	2,857,000
16	545,700	2,832,200	61	514,500	2,848,600	106	473,000	2,860,000
17	546,200	2,835,700	62	514,500	2,848,000	107	472,000	2,860,000
18	548,600	2,837,500	63	514,500	2,847,600	108	471,000	2,860,000
19	550,300	2,839,000	64	514,500	2,846,600	109	470,000	2,860,000
20	545,000	2,839,000	65	514,500	2,845,000	110	469,000	2,860,000
21	540,000	2,839,000	66	514,500	2,844,000	111	468,000	2,860,000
22	550,500	2,844,000	67	514,500	2,843,000	112	467,000	2,860,000
23	545,000	2,844,000	68	514,500	2,842,000	113	466,000	2,860,000
24	540,000	2,844,000	69	514,500	2,841,000	114	465,000	2,860,000
25	550,300	2,848,600	70	514,500	2,840,000	115	464,000	2,860,000
26	549,000	2,848,600	71	514,500	2,839,000	116	463,000	2,860,000
27	548,000	2,848,600	72	514,500	2,838,000	117	462,000	2,860,000
28	547,000	2,848,600	73	514,500	2,837,000	118	461,000	2,860,000
29	546,000	2,848,600	74	514,500	2,836,000	119	460,000	2,860,000
30	545,000	2,848,600	75	514,500	2,835,000	120	459,500	2,863,200
31	544,000	2,848,600	76	514,500	2,834,000	121	459,000	2,863,200
32	543,000	2,848,600	77	514,500	2,833,000	122	458,000	2,863,200
33	542,000	2,848,600	78	514,500	2,832,500	123	457,000	2,863,200
34	541,000	2,848,600	79	510,000	2,832,500	124	456,000	2,863,200
35	540,000	2,848,600	80	509,000	2,832,500	125	455,000	2,863,200
36	539,000	2,848,600	81	508,000	2,832,500	126	454,000	2,863,200
37	538,000	2,848,600	82	507,000	2,832,500			
38	537,000	2,848,600	83	506,000	2,832,500			
39	536,000	2,848,600	84	505,000	2,832,500			
40	535,000	2,848,600	85	504,000	2,832,500			
41	534,000	2,848,600	86	503,000	2,832,500			
42	533,000	2,848,600	87	502,000	2,832,500			
43	532,000	2,848,600	88	501,000	2,832,500			
44	531,000	2,848,600	89	500,000	2,832,500			
45	530,000	2,848,600	90	499,000	2,832,500			

Note: m= meter.

*U.S. Sugar Clewiston Mill's UTM East and North coordinates are
506,100 and 2,956,900 m, respectively.

Table 6-5. A Summary of Building Structures Considered in the Air Modeling Analysis for U. S. Sugar Clewiston

Structure	Height		Length		Width	
	ft	m	ft	m	ft	m
Boiler No. 8 Structures						
Boiler No. 8 Building	98.0	29.9	92.0	28.0	58.8	17.9
Boiler No. 8 ESP	69.0	21.0	69.6	21.2	46.6	14.2
Mill Expansion Buildings						
Electrical Equipment	100.0	30.5	95.6	29.1	27.6	8.4
Support Structure	130.0	39.6	95.6	29.1	76.2	23.2
Dryer Area	100.0	30.5	95.6	29.1	39.0	11.9
Screening & Distribution Towers	150.0	45.7	126.4	38.5	68.7	20.9
Specialty Packaging Facility	40.0	12.2	82.1	25.0	201.6	61.4
Packaging Facility	40.0	12.2	65.0	19.8	280.0	85.3
Warehouse	28.0	8.5	339.7	103.5	289.7	88.3
Electrical & Conditioning Equipment	24.0	7.3	59.7	18.2	52.3	15.9
Bulk Loading	40.0	12.2	84.4	25.7	53.8	16.4
Sugar Silos	136.0	41.5	111.6	34.0	68.7	20.9
Other Mill Buildings						
Pellet Warehouse	46.0	14.0	527.0	160.6	105.0	32.0
WDA	51.0	15.5	55.0	16.8	53.0	16.2
Storage and Safety mechanic	34.8	10.6	83.0	25.3	53.0	16.2
Boiler No. 4 Building	87.5	26.7	78.0	23.8	66.0	20.1
Boiler No. 5&6 Building	56.0	17.1	118.0	36.0	66.0	20.1
Boiler No. 1&2 Building	67.3	20.5	115.0	35.1	103.0	31.4
Power House	34.0	10.4	119.0	36.3	65.0	19.8
Warehouse	37.0	11.3	153.0	46.6	71.0	21.6
Machine Shop	39.0	11.9	309.0	94.2	106.0	32.3
B Mill Building	68.0	20.7	225.0	68.6	81.0	24.7
A Mill Building	69.0	21.0	243.0	74.1	67.0	20.4
Boiling House	93.7	28.6	181.0	55.2	155.0	47.2
Boiler No. 7 ESP	87.5	26.7	55.0	16.8	33.0	10.1
Boiler No. 7 Building	83.0	25.3	106.0	32.3	101.0	30.8
Sugar Warehouse #1	37.0	11.3	390.5	119.0	103.8	31.6
Sugar Warehouse #3	55.0	16.8	771.3	235.1	143.4	43.7

Table 6-6. Maximum Pollutant Impacts Predicted for the Proposed Project in the Clewiston Mill Vicinity-Screening Analysis with Proposed Boiler No. 8 at 100 Percent Load

Pollutant	Averaging Time	Concentration[a] (ug/m^3)	Receptor Location[b] Direction (degree)	Receptor Location[b] Distance (m)	Time Period (YYMMDDHH)
SO_2	Annual	0.08	300	5,000	87123124
		0.07	300	5,000	88123124
		0.08	300	5,000	89123124
		0.09	300	5,000	90123124
		0.07	300	5,000	91123124
	24-Hour	1.57	300	7,000	87062024
		1.65	260	2,000	88061824
		1.45	330	4,000	89060924
		1.94	320	4,000	90101024
		1.83	300	2,000	91072824
	3-Hour	14.2	170	1,800	87102612
		13.3	10	2,000	88060815
		13.7	310	2,000	89071515
		11.7	120	3,000	90072809
		14.4	290	1,800	91082912
PM_{10}	Annual	0.77	300	465	87123124
		0.95	270	403	88123124
		0.88	300	465	89123124
		0.97	270	403	90123124
		0.90	300	465	91123124
	24-Hour	3.83	250	429	87112324
		3.96	270	403	88111624
		4.90	270	403	89122924
		4.25	270	403	90112924
		4.35	280	409	91010224
NO_2	Annual	0.38	300	4,000	87123124
		0.33	270	4,000	88123124
		0.40	300	4,000	89123124
		0.45	300	4,000	90123124
		0.43	300	4,000	91123124
CO	8-Hour	203	220	1,500	87053016
		198	260	2,000	88061816
		196	310	2,000	89071516
		176	310	2,000	90052816
		224	310	2,000	91072416
	1-Hour	1,017	320	900	87072711
		1,036	310	900	88072611
		1,017	260	1,200	89081111
		1,064	300	900	90070112
		1,013	350	900	91061611

Note: YYMMDDHH = Year, Month, Day, Hour Ending.

[a] Based on the 5-year meteorological record from the National Weather Service station in West Palm Beach, 1987 to 1991.

[b] Relative to Boiler No. 4 Stack Location.

Table 6-7. Maximum Pollutant Impacts Predicted for the Proposed Project in the Clewiston Mill Vicinity-Screening Analysis with Proposed Boiler No. 8 at 80 Percent Load

Pollutant	Averaging Time	Concentration[a] (ug/m^3)	Receptor Location[b] Direction (degree)	Receptor Location[b] Distance (m)	Time Period (YYMMDDHH)
SO_2	24-Hour	1.49	300	5,000	87062024
		1.58	260	2,000	88061824
		1.40	330	4,000	89060924
		1.90	320	3,000	90101024
		1.76	300	2,000	91072824
	3-Hour	13.8	170	1,500	87102612
		12.6	10	1,800	88060815
		13.1	170	1,800	89102612
		10.7	270	1,800	90070712
		13.8	290	1,500	91082912
PM_{10}	24-Hour	3.83	250	429	87112324
		3.96	270	403	88111624
		4.90	270	403	89122924
		4.25	270	403	90112924
		4.35	280	409	91010224
CO	8-Hour	196	220	1,500	87053016
		188	260	1,800	88061816
		190	310	2,000	89071516
		171	310	2,000	90052816
		225	290	3,000	91052124
	1-Hour	866	360	600	87091812
		908	310	900	88072611
		831	260	1,200	89081111
		912	320	900	90080511
		913	360	900	91073114

Note: YYMMDDHH = Year, Month, Day, Hour Ending.

[a] Based on the 5-year meteorological record from the National Weather Service station in West Palm Beach, 1987 to 1991.

[b] Relative to Boiler No. 4 Stack Location.

Table 6-8. Maximum Pollutant Impacts Predicted for the Proposed Project in the Clewiston Mill Vicinity-Refined Analysis for Comparison to the PSD Class II Significant Impact Levels

Pollutant	Averaging Time	Boiler No. 8 Operating Load	Concentration (ug/m^3)	Receptor Location[a] Direction (degree)	Receptor Location[a] Distance (m)	Time Period (YYMMDDHH)	Significant Impact Level (ug/m^3)
SO_2	Annual	100	0.09	299	5,000	90123124	1
	24-Hour	100	2.32	323	3,800	90101024	5
		80	2.22	323	3,400	90101024	
	3-Hour	100	14.6	289	1,700	91082912	25
		80	13.9	289	1,600	91082912	
PM_{10}	Annual	100	0.95	270	403	88123124	1
		100	0.97	270	403	90123124	
	24-Hour	100	4.90	270	403	89122924	5
		80	4.90	270	403	89122924	
NO_2	Annual	100	0.45	300	4,100	90123124	1
CO	8-Hour	100	245	308	2,100	91072416	500
		80	233	308	1,900	91072416	
	1-Hour	100	1,183	301	800	90070112	2,000
		80	1,039	301	800	90070112	

Note: YYMMDDHH = Year, Month, Day, Hour Ending.

[a] Relative to Boiler No. 4 Stack Location.

Table 6-9. Maximum Pollutant NO_2 Impacts Predicted for the Proposed Project in the Clewiston Mill Vicinity-Screening and Refined Analyses with Proposed Boiler No. 8 at 100 Percent Load and 90% Bagasse/10% Fuel Oil Firing

Pollutant	Averaging Time	Concentration[a] (ug/m^3)	Receptor Location Direction (degree)	Receptor Location Distance (m)	Time Period (YYMMDDHH)
Screening Analysis [a]					
NO_2	Annual	0.43	300	4,000	87123124
		0.38	270	3,000	88123124
		0.44	300	4,000	89123124
		0.50	300	4,000	90123124
		0.48	300	3,000	91123124
Refined Analysis					
NO_2	Annual	0.50	300	3,800	90123124

Note: YYMMDDHH = Year, Month, Day, Hour Ending.

[a] Based on the 5-year meteorological record from the National Weather Service station in West Palm Beach, 1987 to 1991.

[b] Relative to Boiler No. 4 Stack Location.

Table 6-10. Maximum Pollutant Impacts Predicted for the Proposed Boiler No. 8 Only-
Screening Analysis with Proposed Boiler No. 8 at 100 Percent Load

Pollutant	Averaging Time	Concentration[a] (ug/m^3)	Receptor Location[b] Direction (degree)	Receptor Location[b] Distance (m)	Time Period (YYMMDDHH)
SO_2	Annual	0.11	300	4,000	87123124
		0.10	270	3,000	88123124
		0.11	300	4,000	89123124
		0.13	300	4,000	90123124
		0.12	300	4,000	91123124
	24-Hour	2.22	270	4,000	87111624
		1.92	260	4,000	88013024
		1.86	310	5,000	89040424
		1.94	320	4,000	90101024
		2.44	290	4,000	91052124
	3-Hour	14.2	170	1,800	87102612
		13.3	10	2,000	88060815
		13.7	310	2,000	89071515
		13.0	310	2,000	90052815
		14.4	290	1,800	91082912
PM_{10}	Annual	0.05	300	4,000	87123124
		0.04	270	3,000	88123124
		0.05	300	4,000	89123124
		0.06	300	4,000	90123124
		0.05	300	4,000	91123124
	24-Hour	0.58	270	4,000	87111624
		0.50	260	4,000	88013024
		0.48	310	5,000	89040424
		0.50	320	4,000	90101024
		0.63	290	4,000	91052124
NO_2	Annual	0.40	300	4,000	87123124
		0.37	270	3,000	88123124
		0.42	300	4,000	89123124
		0.48	300	4,000	90123124
		0.45	300	4,000	91123124
CO	8-Hour	203	220	1,500	87053016
		198	260	2,000	88061816
		196	310	2,000	89071516
		176	310	2,000	90052816
		224	310	2,000	91072416
	1-Hour	1,017	320	900	87072711
		1,036	310	900	88072611
		1,017	260	1,200	89081111
		1,064	300	900	90070112
		1,013	350	900	91061611

Note: YYMMDDHH = Year, Month, Day, Hour Ending.

[a] Based on the 5-year meteorological record from the National Weather Service station in West Palm Beach, 1987 to 1991.

[b] Relative to Boiler No. 4 Stack Location.

Table 6-11. Maximum Pollutant Impacts Predicted for the Proposed Boiler No. 8 Only-Screening Analysis with Proposed Boiler No. 8 at 80 Percent Load

Pollutant	Averaging Time	Concentration[a] (ug/m^3)	Receptor Location[b] Direction (degree)	Receptor Location[b] Distance (m)	Time Period (YYMMDDHH)
SO_2	24-Hour	2.18	270	3,000	87111624
		1.86	260	4,000	88013024
		1.82	310	4,000	89040424
		1.90	320	3,000	90101024
		2.70	290	3,000	91052124
	3-Hour	13.8	170	1,500	87102612
		12.6	10	1,800	88060815
		13.1	170	1,800	89102612
		12.7	310	2,000	90052815
		13.8	290	1,500	91082912
PM_{10}	24-Hour	0.57	270	3,000	87111624
		0.48	260	4,000	88013024
		0.47	310	4,000	89040424
		0.49	320	3,000	90101024
		0.70	290	3,000	91052124
CO	8-Hour	196	220	1,500	87053016
		188	260	1,800	88061816
		190	310	2,000	89071516
		171	310	2,000	90052816
		225	290	3,000	91052124
	1-Hour	866	360	600	87091812
		908	310	900	88072611
		831	260	1,200	89081111
		912	320	900	90080511
		913	360	900	91073114

Note: YYMMDDHH = Year, Month, Day, Hour Ending.

[a] Based on the 5-year meteorological record from the National Weather Service station in West Palm Beach, 1987 to 1991.

[b] Relative to Boiler No. 4 Stack Location.

Table 6-12. Summary of Maximum Pollutant Concentrations Predicted for the Boiler No. 8 Project at the PSD Class I Area of the Everglades National Park Compared to the Proposed EPA Class I Significant Impact Levels

Pollutant	Averaging Time	Maximum Concentration ($\mu g/m^3$) [a]			Proposed EPA Class I Significant Impact Levels ($\mu g/m^3$)
		1990	1992	1996	
SO_2	Annual	0.002	0.003	0.002	0.1
	24-Hour	0.07	0.11	0.09	0.2
	3-Hour	0.43	0.45	0.75	1.0
PM_{10}	Annual	0.0008	0.001	0.001	0.2
	24-Hour	0.002	0.01	0.007	0.3
NO_2	Annual	0.003	0.004	0.004	0.1

[a] Concentrations are highest predicted using CALPUFF model and CALMET windfields for south Florida.

Table 6-13. Maximum Sulfuric Acid Mist Impacts Predicted for the Proposed Boiler No. 8 Only-Screening Analysis with Proposed Boiler No. 8 at 100 Percent Load

Pollutant	Averaging Time	Concentration[a] (ug/m^3)	Receptor Location[b] Direction (degree)	Receptor Location[b] Distance (m)	Time Period (YYMMDDHH)
Sulfuric Acid Mist	Annual	0.007	300	4,000	87123124
		0.006	270	3,000	88123124
		0.007	300	4,000	89123124
		0.008	300	4,000	90123124
		0.008	300	4,000	91123124
	24-Hour	0.14	270	4,000	87111624
		0.12	260	4,000	88013024
		0.11	310	5,000	89040424
		0.12	320	4,000	90101024
		0.15	290	4,000	91052124
	8-Hour	0.25	220	1,500	87053016
		0.24	260	2,000	88061816
		0.24	310	2,000	89071516
		0.22	310	2,000	90052816
		0.28	310	2,000	91072416
	3-Hour	0.87	170	1,800	87102612
		0.82	10	2,000	88060815
		0.84	310	2,000	89071515
		0.79	310	2,000	90052815
		0.88	290	1,800	91082912
	1-Hour	1.63	320	900	87072711
		1.66	310	900	88072611
		1.63	260	1,200	89081111
		1.70	300	900	90070112
		1.62	350	900	91061611

Note: YYMMDDHH = Year, Month, Day, Hour Ending.

[a] Based on the 5-year meteorological record from the National Weather Service station in West Palm Beach, 1987 to 1991.

[b] Relative to Boiler No. 4 Stack Location.

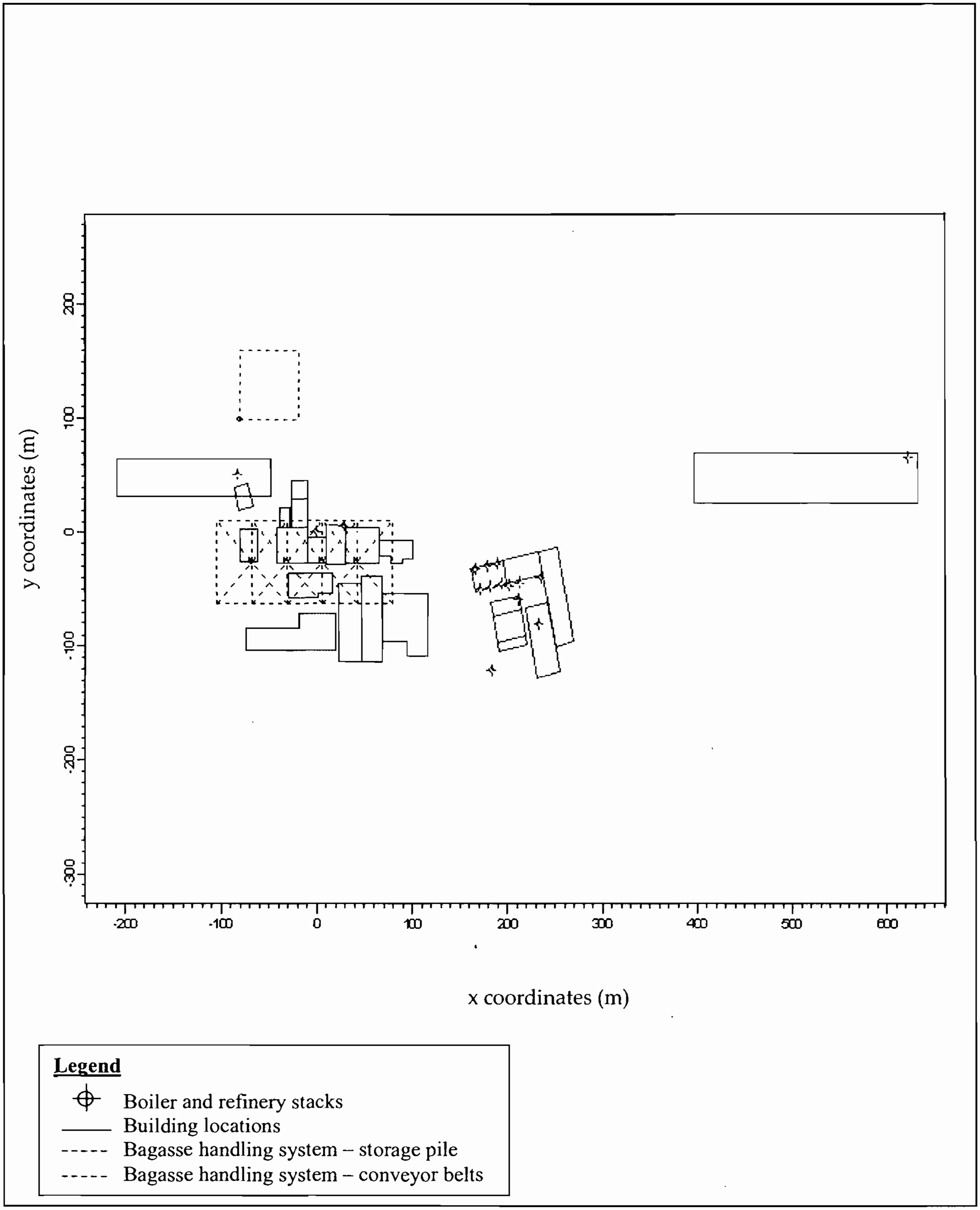

Figure 6-1.
Emission Source and Building Locations for the
Proposed Boiler No. 8 Project - U.S. Sugar Clewiston Mill

Source: Golder, 2003.

Golder Associates

7.0 ADDITIONAL IMPACT ANALYSIS

7.1 IMPACTS DUE TO ASSOCIATED DIRECT GROWTH

Boiler No. 8 is being constructed to meet current and projected demands for the Clewiston sugar mill. Additional growth as a direct result of the additional demand provided by the project is not expected.

Construction of Boiler No. 8 will occur over approximately a 2-year period, requiring an average of approximately 25 workers during that time. It is anticipated that many of these construction personnel will commute to the site.

The addition of Boiler No. 8, coupled with the removal of Boiler No. 3, will result in no increase in operational workers at the site. The increase in production rate of the sugar refinery will not require any additional workers. The operational workforce will also include annual contracted maintenance workers to be hired for periodic routine services. The workforce needed to operate Boiler No. 8 represents a small fraction of the population already present in the immediate area. Therefore, while there may 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 industrial/ commercial growth given the location at the existing Clewiston Mill. The existing commercial and industrial infrastructure are adequate to provide any support services that the project might require and would not increase with the operation of the project.

7.2 IMPACTS ON SOILS, VEGETATION, WILDLIFE AND VISIBILITY IN THE VICINITY OF THE SITE

The maximum air quality impacts predicted for the Boiler No. 8 project in the vicinity of the site were used to assess the project's potential impacts on nearby soils, vegetation, wildlife and visibility.

The primary vegetation, as well as agricultural crop, in the area of the Clewiston Mill is sugarcane. Citrus groves are also located in the area, primarily to the west of Clewiston. Some vegetable farming, nurseries, and sod farms are also located in the area. Soils in the area are primarily histocols, which are peat soils with high amounts of organic matter.

The project's impacts on the local air quality are predicted to be less than the significant impact levels for PSD Class II areas and well below the AAQS. Since the AAQS are designed to protect the public welfare, including effects on soils and vegetation, and the project's impacts are predicted to be less than the significant impact levels, no detrimental effects on soils or vegetation should occur in this area due to the project's operation.

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. Generally, there are three ways pollutants may affect wildlife: through inhalation, through exposure with skin, and through ingestion (Newman, 1980). Ingestion is the most common means and can occur through eating or drinking of high concentrations of pollutants. Bioaccumulation is the process of animals collecting and accumulating pollutant levels in their bodies over time. Other animals that prey on these animals would then be ingesting concentrated pollutants levels.

It is unlikely that the project's emissions will cause injury or death to wildlife based on a review of the limited literature on air pollutant effects on wildlife. The project's impacts are predicted to be very low and dispersed over a large area. Coupled with the mobility of wildlife, the potential for exposure of wildlife to the project's impacts under weather conditions that lead to high concentrations is extremely unlikely.

In addition, no visibility impairment in the Clewiston vicinity is expected due to the types and quantities of emissions proposed for the project. The opacity of the proposed Boiler No. 8 emissions will be 20 percent or less under normal operation, and with the use of the ESP control device, the water vapor plume from the stack will be less visible compared to Boiler No. 3 (with wet scrubber), which will be shut down.

7.3 IMPACTS TO PSD CLASS I AREAS

7.3.1 IDENTIFICATION OF AQRVS AND METHODOLOGY

An Air Quality Related Values (AQRV) analysis was conducted to assess the potential risk to AQRVs at the Everglades NP due to the proposed emissions from the Boiler No. 8 project. The Everglades NP is the closest Class I area to the Clewiston Mill site, and is located about 102 km south of the project 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 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 predicted atmospheric concentrations due to the increase in emissions resulting from the proposed project are presented in Table 7-1. As shown, the predicted increase in impacts is very low for all pollutants considered.

7.3.2 IMPACTS TO SOILS

For soils, the potential and hypothesized effects of atmospheric deposition 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.

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 contaminants projected for the Everglades NP from the project emissions precludes any significant impact on soils.

7.3.3 IMPACTS TO VEGETATION

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. For purposes of this analysis, it was assumed that 100 percent of each air contaminant of concern is accessible to the plants.

Injury to vegetation from exposure to various levels or 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 results 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.

The concentrations of the pollutants, duration of exposure and frequency of exposures 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.

Sulfur Dioxide

Sulfur is an essential plant nutrient usually taken up as sulfate ions by the roots from the soil solution. When sulfur dioxide 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 7-2 and 7-3, 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 usually is 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 μg/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 μg/m^3.

Two lichen species indigenous to the park area 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).

Jack pine seedlings exposed to SO_2 concentrations of 470 to 520 μg/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 μg/m^3 SO_2 for 24 hours a day for 1 week demonstrated a 48 percent reduction in photosynthesis (Carlson, 1979).

The maximum 3-, 8-, and 24-hour average SO_2 concentrations for the proposed Boiler No. 8 project are predicted to be 0.75, 0.19, and 0.003 *μg*/m^3, respectively, at the Class I area. The maximum 3-hour average SO_2 concentrations predicted for the project at the Class I area are 0.4 percent or less of those that caused damage to the most sensitive lichens. The modeled annual incremental increase in SO_2 adds only slightly to background levels of this gas and poses no threat to area vegetation.

Nitrogen Dioxide

Nitrogen dioxide (NO_2) is another emission of concern for the proposed plant expansion. This compound 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).

Plant damage can occur through either acute (short-term, high concentration) or chronic (long-term, relatively low concentration) exposure. For plants that have been determined to be more sensitive to NO_2 exposure than others, acute (1, 4, 8 hours) exposure 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).

The maximum 1-, 3-, and 8-hour average NO_2 concentrations due to the project are predicted to be 0.74, 0.53, and 0.41 μg/m^3, respectively, at the Class I area. These concentrations are approximately 0.005 to 0.02 percent of the levels that could potentially injure 5 percent of the plant foliage. For a chronic exposure, the maximum annual NO_2 concentration due to the project is predicted to be 0.004 μg/m^3 at the Class I area, which is less than 0.01 percent of the levels that caused minimal yield loss and chlorosis in plant tissue.

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 concentrations within the end are still far below the levels that potentially cause plant injury for either acute or chronic exposure.

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.

The maximum 8-hour PM concentration due to the proposed project is predicted to be 0.03 μg/m^3 at the Class I area. This concentration is less than 0.01 percent of the values that affected plant foliage. As a result, no significant effects to vegetative AQRVs are expected from the project's emissions.

Sulfuric Acid Mist

Acidic precipitation or acid rain is coupled to SO_2 emissions mainly formed during the burning of fossil fuels. This pollutant is oxidized in the atmosphere and dissolves in rain forming sulfuric acid mist, which falls as acidic precipitation (Ravera, 1989). Although concentration data are not available, sulfuric acid mist has been reported to yield necrotic spotting on the upper surfaces of leaves (Middleton *et al.*, 1950).

No significant adverse effects on vegetation are expected from the project's emissions because SO_2 concentrations, which lead directly to the formation of sulfuric acid mist concentrations, are predicted to be well below levels, which have been documented as negatively affecting vegetation. During the last decade, much attention has been focused on acid rain. 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.

Summary

In summary, the phytotoxic effects on the Everglades NP from the proposed Boiler No. 8 project's emissions are expected to be minimal. It is important to note that the substances were evaluated with the assumption that 100 percent was available for plant uptake. This is rarely the case in a natural ecosystem.

7.3.4 IMPACTS TO 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 ambient air quality standards. Physiological and behavioral effects have been observed in experimental animals at or below these standards. No observable effects to fauna are expected at concentrations below the values reported in Table 7-4.

The major air quality risk to wildlife in the United States is from continuous exposure to pollutants above the National Ambient Air Quality Standards. 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).

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 7-4. These values are up to orders of magnitude larger than maximum predicted concentrations for the Class I area.

No significant effects on wildlife AQRVs from SO_2, NO_x, and particulates are expected. These results are considered indications of the risk of other air pollutant emissions predicted from the project, which is also considered to be negligible.

7.4 IMPACTS ON VISIBILITY

7.4.1 INTRODUCTION

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 pollutants. Sources of air pollution can cause visible plumes if emissions of PM_{10} and NO_x are sufficiently large. A plume will be visible if its constituents scatter or absorb sufficient light so that the plume is brighter or darker than its viewing background (e.g., the sky or a terrain feature, such as a mountain). PSD Class I areas, such as national parks and wilderness areas, are afforded special visibility protection designed to prevent plume visual impacts to observers within a Class I area.

Visibility is an AQRV for the Everglades NP. Visibility can take the form of plume blight for nearby areas or regional haze for long distances (e.g., distances beyond 50 km). Because the Everglades NP is more than 50 km from the Clewiston Mill, the change in visibility is 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 who are responsible for ensuring that AQRVs are not adversely impacted by new and existing sources. These recommendations have been summarized 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 visibility impairment due to the project.

7.4.2 ANALYSIS METHODOLOGY

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 project. 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.

Processing of visibility impairment for this study was performed with the CALPUFF model (see Appendix J) and the CALPUFF post-processing program CALPOST. The analysis was conducted in accordance with the most recent guidance from the FLAG report (December 2000). The CALPUFF postprocessor model CALPOST is used to calculate the combined visibility effects from the different pollutants that are emitted from the Project. Daily background extinction coefficients are 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. 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.

7.4.3 RESULTS

The results of the refined regional haze analysis are presented in Table 7-5. The results indicate that the proposed project's maximum predicted impact on visibility at the Everglades NP is 4.44 percent. This value is below the FLM's screening criteria of 5 percent change. Therefore, the Boiler No. 8 project is not expected to have an adverse impact on the existing regional haze in the Everglades NP.

7.5 SULFUR AND NITROGEN DEPOSITION

7.5.1 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 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:

- SO2, wet and dry deposition; and
- SO4, wet and dry deposition.

The CALPUFF model produces results in units of $\mu g/m^2/s$. The modeled deposition rates are then converted to N or S deposition in 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).

Deposition analysis thresholds (DAT) for nitrogen and sulfur 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 Boiler No. 8 project are, therefore, compared to these DAT or significant impact levels.

7.5.2 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 7-6. The maximum N and S deposition rates for the Project are predicted to be 0.0016 and 0.0013 kg/ha/yr, respectively. These maximum deposition rates are below the DAT for N and S of 0.01 kg/ha/yr. As a result, the project's emissions are not expected to have a significant adverse effect on N and S deposition at the Class I area.

Table 7-1. Maximum Pollutant Concentrations Predicted for the Boiler No. 8 Project at the PSD Class I Area of the Everglades National Park

Pollutant	Averaging Time	Maximum Concentrations ($\mu g/m^3$) [a] 1990	1992	1996
SO_2	Annual	0.002	0.003	0.002
	24-Hour	0.07	0.11	0.09
	8-Hour	0.16	0.18	0.19
	3-Hour	0.43	0.45	0.75
	1-Hour	0.55	0.77	1.11
PM_{10}	Annual	0.0008	0.001	0.001
	24-Hour	0.002	0.01	0.007
	8-Hour	0.004	0.03	0.02
	3-Hour	0.007	0.05	0.05
	1-Hour	0.011	0.09	0.08
NO_2	Annual	0.003	0.004	0.004
	24-Hour	0.11	0.18	0.15
	8-Hour	0.31	0.41	0.39
	3-Hour	0.38	0.47	0.53
	1-Hour	0.44	0.71	0.74
Sulfuric acid mist	Annual	0.0001	0.0002	0.0001
	24-Hour	0.004	0.007	0.006
	8-Hour	0.010	0.011	0.012
	3-Hour	0.027	0.028	0.047
	1-Hour	0.034	0.048	0.069

[a] Concentrations are highest predicted using CALPUFF model and CALMET windfields for south Florida. Concentrations predicted are based on Boiler No. 8 operating at 100 percent load and firing bagasse which produces the maximum emissions.

Table 7-2. 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 hours per week 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 to 520	24 hours	Malhotra and Kahn, 1978
Black oak	1,310	Continuously for 1 week	Carlson, 1979

Table 7-3. Sensitivity Groupings of Vegetation Based on Visible Injury at Different SO_2 Exposures[a]

Sensitivity Grouping	SO_2 Concentration		Plants
	1-Hour	3-Hour	
Sensitive	1,310 - 2,620 μG/m^3 (0.5 - 1.0 ppm)	790 - 1,570 μG/m^3 (0.3 - 0.6 ppm)	Ragweeds Legumes Blackberry Southern pines Red and black oaks White ash Sumacs
Intermediate	2,620 - 5,240 μG/m^3 (1.0 - 2.0 ppm)	1,570 - 2,100 μG/m^3 (0.6 - 0.8 ppm)	Maples Locust Sweetgum Cherry Elms Tuliptree Many crop and garden species
Resistant	>5,240 μG/m^3 (>2.0 ppm)	>2,100 μG/m^3 (>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 7-4. Examples of Reported Effects of Air Pollutants at Concentrations Below National Secondary Ambient Air Quality Standards

Pollutant	Reported Effect	Concentration (μg/m³)	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

Source: a Newman and Schreiber, 1988.
b Gardner and Graham, 1976.
c Trzeciak et al., 1977.

Table 7-5. Maximum 24-hour Average Visibility Impairment Predicted for the Boiler No. 8 Project at the PSD Class I Area of the Everglades National Park

Ranking	Visibility Impairment (%) [a]			Visibility Impairment Criteria (%)
	1990	1992	1996	
Highest	1.76	4.44	3.14	5.0

[a] Concentrations are highest predicted using the CALPUFF model and CALMET windfields for south Florida.

Table 7-6. Maximum Sulfur and Nitrogen Annual Deposition Predicted for the Boiler No. 8 Project at the PSD Class I Area of the Everglades National Park

Species	Total Deposition (Wet & Dry)						Deposition Analysis Threshold [b]
	1990		1992		1996		
	($g/m^2/s$)	(kg/ha/yr)[a]	($g/m^2/s$)	(kg/ha/yr)[a]	($g/m^2/s$)	(kg/ha/yr)[a]	(kg/ha/yr)
Sulfur (S) Deposition	4.17E-12	0.0013	3.94E-12	0.0012	3.89E-12	0.0012	0.01
Nitrogen (N) Deposition	4.41E-12	0.0014	4.48E-12	0.0014	4.97E-12	0.0016	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.

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APPENDIX A

BOILER DESIGN DATA

APPENDIX A

BOILER DESIGN DATA

1. Boiler No. 8 – Annual Steam Production Basis:

Based on 75 percent capacity factor
550,000 lb/hr steam x 8,760 hr/yr x 0.75 = 3.6135×10^9 lb steam per year

2. Steam Enthalpy Calculation

A. Steam conditions: 600 psig, 750°F
= 615 psia, 750°F
Enthalpy = 1,379 Btu/lb

B. Feedwater condition: 800 psig, 250°F
= 815 psia, 250°F
Enthalpy = 218 Btu/lb

C. Net Enthalpy: 1,379 – 218 = 1,161 Btu/lb steam

3. Heat Input Calculation (based on 62 percent thermal efficiency)

A. Maximum 1-hour:
550,000 lb/hr steam x 1,161 Btu/lb ÷ 0.62 = 1,030 MMBtu/hr

B. Maximum 24-hour:
500,000 lb/hr steam x 1,161 Btu/lb ÷ 0.62 = 936 MMBtu/hr

C. Annual rate:
3.6135×10^9 lb steam/yr x 1,161 Btu/lb ÷ 0.62 = 6,767,100 MMBtu/yr

4. Furnace Data

Furnace Type = Membrane Wall
Furnace Volume = 50,520 ft^3
Heat Release Rate (Bagasse) = 20,497 Btu/ft^3
Heat Release Rate (No. 2 Fuel Oil or Natural Gas) = 11,184 Btu/ft^3

5. Calculation of maximum annual CO emission rate for Boiler No. 8

A. Basis = 363 ppmvd @ 7-percent O_2, 12-month rolling average
= 467 ppmvd @ 3-percent O_2, 12-month rolling average

B. Design gas flow rate (at stack) at max 24-hour steam rate = 400,000 acfm @ 330°F
Moisture content = 24 percent
Oxygen content = 5.5 percent, dry

C. Dry standard flow rate = 400,000 x [528 / (460 + 330)] x (1 – 0.24)
= 203,180 dscfm @ 5.5-percent O_2

D. Correct to 7-percent O_2: 203,180 dsfcm x [(21 – 5.5) / (21 – 7.0)]
= 225,000 dscfm @ 7-percent O_2

E. MW CO = 28
PV = mRT

$$m = PV/RT = \frac{2{,}116.8\ lb_f}{ft^2} \times \frac{225{,}000\ ft^3}{min} \times \frac{363}{10^6} \times \frac{28}{1{,}545} \times \frac{lb_m\text{-}°R}{ft\text{-}lb_f} \times \frac{1}{528°R} \times \frac{60\ min}{hour}$$

= 356 lb/hr

F. Equivalent lb/MMBtu:

Maximum 24-hour heat input = 936 MMBtu/hr

356 lb/hr ÷ 936 MMBtu/hr = 0.38 lb/MMBtu

APPENDIX B

BASELINE EMISSION CALCULATIONS

Table B-1. Baseline 2001 Emissions for Clewiston Boiler No. 3, U.S. Sugar Corp.

Pollutant	Bagasse Firing					Fuel Oil Firing					TOTAL
	Emission Factor		Ref.	Heat Input (a) (MMBtu/yr)	Emissions (TPY)	Emission Factor		Ref.	Heat Input (b) (MMBtu/yr)	Emissions (TPY)	EMISSIONS (TPY)
Particulate Matter (Total)	0.17	lb/MMBtu	1	569,150	48.4	0.1	lb/MMBtu	9	82,890	4.14	52.5
Particulate Matter (PM10)	0.158	lb/MMBtu	2	569,150	45.0	0.085	lb/MMBtu	10	82,890	3.52	48.5
Sulfur Dioxide	0.010	lb/MMBtu	3	569,150	2.8	1.46	lb/MMBtu	11	82,890	60.51	63.4
Nitrogen Oxides	0.152	lb/MMBtu	4	569,150	43.3	0.31	lb/MMBtu	12	82,890	12.85	56.1
Carbon Monoxide	4.9	lb/MMBtu	5	569,150	1,394.4	0.033	lb/MMBtu	12	82,890	1.37	1,395.8
Volatile Organic Compounds	0.20	lb/MMBtu	6	569,150	56.9	0.0019	lb/MMBtu	12	82,890	0.079	57.0
Sulfuric Acid Mist	0.00061	lb/MMBtu	7	569,150	0.2	0.09	lb/MMBtu	7	82,890	3.71	3.9
Lead	2.17E-05	lb/MMBtu	8	569,150	0.0062	1.01E-05	lb/MMBtu	12	82,890	4.19E-04	0.0066
Mercury	7.90E-06	lb/MMBtu	8	569,150	0.0022	7.53E-07	lb/MMBtu	12	82,890	3.12E-05	0.0023
Fluorides	2.90E-04	lb/MMBtu	13	569,150	0.083	3.73E-02	lb/MMBtu	12	82,890	1.55	1.63

Footnotes:

(a) Based on actual steam production during 2001, and actual steam enthalpies during stack tests.

(b) Based on fuel oil usage during 2001 of 548,708 gal @ 151,063 Btu/gal.

BDL = below detection limit.

References:

(1) Based on 12/18/01 compliance test.

(2) Based on 93% of PM emissions for bagasse burning based on limited testing of a bagasse boiler.

(3) Based on source testing of Boiler No. 1 in December 2000.

(4) Based on source testing of Boiler No. 3 in 1995.

(5) Average of historic CO test data from Boiler No. 3.

(6) Based on historic VOC test data from similar cell type boilers in sugar industry.

(7) Based on assuming 5% of SO2 emissions are equal to SO3, based on AP-42 Section 1.3, Fuel Oil Combustion.
Conversion of SO3 to H2SO4 (SO3 x 98/80).

(8) Based on average bagasse analysis for Clewiston mill.

(9) Based on permit limit for oil firing.

(10) Assumed as 85% of PM emissions.

(11) Based on actual fuel sulfur content of 1.34% and 151,063 Btu/gal for 2001.

(12) Based on AP-42, Section 1.3, Fuel Oil Combustion.
NOx - 47 lb/1000 gal; CO - 5 lb/1000 gal; VOC - 0.28 lb/1000 gal;
Lead - 1.51E-03 lb/1000 gal; Mercury - 1.13E-04 lb/1000 gal; Beryllium - 2.85E-05 lb/1000 gal
Fluorides - 3.73E-02 lb/1000 gal

(13) From stack testing on bagasse only at Okeelanta Power cogen facility.

Table B-2. Baseline 2002 Emissions for Clewiston Boiler No. 3, U.S. Sugar Corp.

Pollutant	Bagasse Firing					Fuel Oil Firing					TOTAL EMISSIONS (TPY)
	Emission Factor		Ref.	Heat Input (a) (MMBtu/yr)	Emissions (TPY)	Emission Factor		Ref.	Heat Input (b) (MMBtu/yr)	Emissions (TPY)	
Particulate Matter (Total)	0.19	lb/MMBtu	1	439,265	41.7	0.1	lb/MMBtu	9	38,446	1.92	43.7
Particulate Matter (PM10)	0.177	lb/MMBtu	2	439,265	38.8	0.085	lb/MMBtu	10	38,446	1.63	40.4
Sulfur Dioxide	0.010	lb/MMBtu	3	439,265	2.2	1.46	lb/MMBtu	11	38,446	28.07	30.3
Nitrogen Oxides	0.152	lb/MMBtu	4	439,265	33.4	0.31	lb/MMBtu	12	38,446	5.96	39.3
Carbon Monoxide	4.9	lb/MMBtu	5	439,265	1,076.2	0.033	lb/MMBtu	12	38,446	0.63	1,076.8
Volatile Organic Compounds	0.20	lb/MMBtu	6	439,265	43.9	0.0019	lb/MMBtu	12	38,446	0.037	44.0
Sulfuric Acid Mist	0.00061	lb/MMBtu	7	439,265	0.13	0.09	lb/MMBtu	7	38,446	1.72	1.9
Lead	3.80E-05	lb/MMBtu	8	439,265	0.0083	1.01E-05	lb/MMBtu	12	38,446	1.94E-04	0.0085
Mercury	1.40E-05	lb/MMBtu	8	439,265	0.0031	7.53E-07	lb/MMBtu	12	38,446	1.45E-05	0.0031
Fluorides	2.90E-04	lb/MMBtu	13	439,265	0.064	3.73E-02	lb/MMBtu	12	38,446	0.72	0.78

Footnotes:

(a) Based on actual steam production during 2002, and actual steam enthalpies during stack tests.

(b) Based on fuel oil usage during 2002 of 250,226 gal @ 153,645 Btu/gal.

BDL = below detection limit.

References:

(1) Based on 11/12/2002 compliance test.

(2) Based on 93% of PM emissions for bagasse burning based on limited testing of a bagasse boiler.

(3) Based on source testing of Boiler No. 1 in December 2000.

(4) Based on source testing of Boiler No. 3 in 1995.

(5) Average of historic CO test data from Boiler No. 3.

(6) Based on historic VOC test data from similar cell type boilers in sugar industry.

(7) Based on assuming 5% of SO2 emissions are equal to SO3, based on AP-42 Section 1.3, Fuel Oil Combustion.
Conversion of SO3 to H2SO4 (SO3 x 98/80).

(8) Based on average bagasse analysis for Clewiston mill.

(9) Based on permit limit for oil firing.

(10) Assumed as 85% of PM emissions.

(11) Based on actual fuel sulfur content of 1.47% and 153,645 Btu/gal for 2002.

(12) Based on AP-42, Section 1.3, Fuel Oil Combustion.
NOx - 47 lb/1000 gal; CO - 5 lb/1000 gal; VOC - 0.28 lb/1000 gal;
Lead - 1.51E-03 lb/1000 gal; Mercury - 1.13E-04 lb/1000 gal; Beryllium - 2.85E-05 lb/1000 gal

Table B-3. 2001 Emissions of Criteria Pollutants from the Sugar Refinery at U.S. Sugar Corp, Clewiston

Source/Vent Name	EU Description	Hours of Operation	PM/PM_{10} Emissions (lb/hr)[a]	PM/PM_{10} Emissions (TPY)
V.H.P. Sugar Dryer	S-11	4,128	1.63	3.36
White Sugar Dryer	S-10	7,416	1.44	5.34
		TOTAL =	3.07	8.70
Vacuum Systems				
Screening and Distribution Vacuum	S-1	8,760	0.06	0.26
100 lb Bagging Vacuum System	S-2	8,760	0.06	0.26
5 lb Bagging Vacuum System	S-3	8,760	0.06	0.26
		TOTAL =	0.18	0.79
Conditioning Silos				
Conditioning Silo No. 2	S-7	8,760	0.06	0.26
Conditioning Silo No. 4	S-8	8,760	0.06	0.26
Conditioning Silo No. 6	S-9	8,760	0.06	0.26
Conditioning Silo No. 1[b]	S-13	0	0.06	0
Conditioning Silo No. 3[b]	S-14	0	0.06	0
Conditioning Silo No. 5[b]	S-15	0	0.06	0
		TOTAL =	0.36	0.79
Screening, Distribution, Packaging, Powdered Sugar/Starch				
Screening and Distribution #1	S-5	8,760	0.06	0.26
Screening and Distribution #2	S-6	8,760	0.19	0.83
Powdered Sugar/Starch Bins[b]	S-16	0	0.13	0
		TOTAL =	0.38	1.10
Sugar Packaging Baghouse				
Packing Dust Collector	S-4	7,416	0.21	0.78
	GRAND TOTAL =		4.20	12.15

[a] Based on permit emission limits.

[b] These units have not yet been constructed.

Note: lb/hr = pounds per hour
TPY = tons per year

Table B-4. 2002 Emissions of Criteria Pollutants from the Sugar Refinery at U.S. Sugar Corp., Clewiston

Source/Vent Name	EU Description	Hours of Operation	PM/PM_{10} Emissions (lb/hr)[a]	PM/PM_{10} Emissions (TPY)
V.H.P. Sugar Dryer	S-11	3,600	1.63	2.93
White Sugar Dryer	S-10	7,416	1.44	5.34
		TOTAL =	3.07	8.27
Vacuum Systems				
Screening and Distribution Vacuum	S-1	7,416	0.06	0.22
100 lb Bagging Vacuum System	S-2	7,416	0.06	0.22
5 lb Bagging Vacuum System	S-3	7,416	0.06	0.22
		TOTAL =	0.18	0.67
Conditioning Silos				
Conditioning Silo No. 2	S-7	8,760	0.06	0.26
Conditioning Silo No. 4	S-8	8,760	0.06	0.26
Conditioning Silo No. 6	S-9	8,760	0.06	0.26
Conditioning Silo No. 1[b]	S-13	0	0.06	0
Conditioning Silo No. 3[b]	S-14	0	0.06	0
Conditioning Silo No. 5[b]	S-15	0	0.06	0
		TOTAL =	0.36	0.79
Screening, Distribution, Packaging, Powdered Sugar/Starch				
Screening and Distribution #1	S-5	7,416	0.06	0.22
Screening and Distribution #2	S-6	7,416	0.19	0.70
Powdered Sugar/Starch Bins[b]	S-16	0	0.13	0
		TOTAL =	0.38	0.93
Sugar Packaging Baghouse				
Packing Dust Collector	S-4	7,416	0.21	0.78
	GRAND TOTAL =		4.20	11.44

[a] Based on permit emission limits.

[b] These units have not yet been constructed.

Note: lb/hr = pounds per hour
TPY = tons per year

Table B-5. 2001 Emissions of Criteria Pollutants from the Granular Carbon Furnace at U. S. Sugar Corporation, Clewiston

Regulated Pollutant	Manufacturer's Design[a] (lb/hr)	Maximum Estimated Emissions (lb/hr)	(TPY)[b]
Criteria and Precursor Air Pollutants			
Particulate Matter (PM)	0.65	0.5377 [c]	1.23
Particulate Matter (PM_{10})	0.59	0.4839 [d]	1.10
Sulfur Dioxide (SO_2)	0.29 [e]	0.29	0.65
Nitrogen Oxides (NO_x)	3.0	3.0	6.84
Carbon Monoxide (CO)	3.0	3.0	6.84
VOC	1.0	0.391 [c]	0.89

[a] Estimated emissions obtained from design information provided by BSP Thermal Systems, Inc.

[b] Based on 4,560 hours of operation.

[c] Based on emission tests conducted by Air Consulting and Engineering, Inc (1/20/00).

[d] 90% of PM is assumed to be PM_{10}.

[e] Average hourly rate. Based on stoichmetric calculation for conversion of sulfur into sulfur dioxide: (190,755/4,560) gal/hr x 0.05% x 6.83 lb/gal x 2 lb SO_2/lb sulfur = 0.286 lb/hr.

Table B-6. 2002 Emissions of Criteria Pollutants from the Granular Carbon Furnace at U. S. Sugar Corporation, Clewiston

Regulated Pollutant	Manufacturer's Design[a] (lb/hr)	Maximum Estimated Emissions (lb/hr)	Maximum Estimated Emissions (TPY)[b]
Criteria and Precursor Air Pollutants			
Particulate Matter (PM)	0.65	0.5377 [c]	1.59
Particulate Matter (PM_{10})	0.59	0.4839 [d]	1.43
Sulfur Dioxide (SO_2)	0.29 [e]	0.29	0.85
Nitrogen Oxides (NO_x)	3.0	3.0	8.89
Carbon Monoxide (CO)	3.0	3.0	8.89
VOC	1.0	0.335 [c]	0.99

[a] Estimated emissions obtained from design information provided by BSP Thermal Systems, Inc.

[b] Based on 5,928 hours of operation.

[c] Based on emission tests conducted by Air Consulting and Engineering, Inc (1/20/00).

[d] 90% of PM is assumed to be PM_{10}.

[e] Average hourly rate. Based on stoichmetric calculation for conversion of sulfur into sulfur dioxide: (290,424/5,928) gal/hr x 0.05% x 6.83 lb/gal x 2 lb SO_2/lb sulfur = 0.335 lb/hr.

Table B-7. 2001 Emissions of Criteria Pollutants from Alcohol Usage in the Sugar Refinery at U. S. Sugar Corporation, Clewiston

Material	VOC Content (percent)	Gallons Used (gal/yr)	Pounds Used[a] (lb/yr)	VOC Emissions (TPY)
Isopropyl Alcohol	100	1,045	6,793	3.40

[a] The density of the isopropyl alcohol is 6.54 lb/gal.

Table B-8. 2002 Emissions of Criteria Pollutants from Alcohol Usage in the Sugar Refinery at U. S. Sugar Corporation, Clewiston

Material	VOC Content (percent)	Gallons Used (gal/yr)	Pounds Used[a] (lb/yr)	VOC Emissions (TPY)
Isopropyl Alcohol	100	1,045	6,793	3.40

[a] The density of the isopropyl alcohol is 6.54 lb/gal.

Table B-9. Average 2001-2002 Emissions from Sugar Refinery, U. S. Sugar Corporation, Clewiston

Source	EU Description	Average Emissions (TPY)						
		PM	PM10	SO2	NOx	CO	VOC	SAM[a]
V.H.P. Sugar Dryer	S-11	3.15	3.15	0	0	0	0	0
White Sugar Dryer	S-10	5.34	5.34	0	0	0	0	0
Vacuum Systems								
Screening and Distribution Vacuum	S-1	0.24	0.24	0	0	0	0	0
100 lb Bagging Vacuum System	S-2	0.24	0.24	0	0	0	0	0
5 lb Bagging Vacuum System	S-3	0.24	0.24	0	0	0	0	0
Conditioning Silos								
Conditioning Silo No. 2	S-7	0.26	0.26	0	0	0	0	0
Conditioning Silo No. 4	S-8	0.26	0.26	0	0	0	0	0
Conditioning Silo No. 6	S-9	0.26	0.26	0	0	0	0	0
Conditioning Silo No. 1[b]	S-13	0.00	0.00	0	0	0	0	0
Conditioning Silo No. 3[b]	S-14	0.00	0.00	0	0	0	0	0
Conditioning Silo No. 5[b]	S-15	0.00	0.00	0	0	0	0	0
Screening, Distribution, Packaging, Powdered Sugar/Starch								
Screening and Distribution #1	S-5	0.24	0.24	0	0	0	0	0
Screening and Distribution #2	S-6	0.77	0.77	0	0	0	0	0
Powdered Sugar/Starch Bins[b]	S-16	0.00	0.00	0	0	0	0	0
Sugar Packaging Baghouse								
Packing Dust Collector	S-4	0.78	0.78	0	0	0	0	0
Granular Carbon Furnace	S-12	1.41	1.27	0.75	7.87	7.87	0.94	0.046
Alcohol Usage	021	0	0	0	0	0	3.40	0
TOTAL ALL REFINERY SOURCES		13.20	13.06	0.75	7.87	7.87	4.34	0.046

Note: Based on Annual Operating Reports submitted to DEP for 2001 and 2002, unless otherwise noted.
a Calculated assuming 5% of SO2 is SO3, then convert to H2SO4 (x 98/80).

Table B-10. Potential Emissions from Sugar Refinery, U. S. Sugar Corporation, Clewiston

Source	EU Description	Potential Emissions[a] (TPY)						
		PM	PM10	SO2	NOx	CO	VOC	SAM[b]
V.H.P. Sugar Dryer	S-11	7.14	7.14	0	0	0	0	
White Sugar Dryer	S-10	6.30	6.30	0	0	0	0	0
								0
Vacuum Systems								
Screening and Distribution Vacuum	S-1	0.28	0.28	0	0	0	0	
100 lb Bagging Vacuum System	S-2	0.28	0.28	0	0	0	0	0
5 lb Bagging Vacuum System	S-3	0.28	0.28	0	0	0	0	0
								0
Conditioning Silos								
Conditioning Silo No. 2	S-7	0.25	0.25	0	0	0	0	0
Conditioning Silo No. 4	S-8	0.25	0.25	0	0	0	0	0
Conditioning Silo No. 6	S-9	0.25	0.25	0	0	0	0	0
Conditioning Silo No. 1[b]	S-13	0.25	0.25	0	0	0	0	0
Conditioning Silo No. 3[b]	S-14	0.25	0.25	0	0	0	0	0
Conditioning Silo No. 5[b]	S-15	0.25	0.25	0	0	0	0	0
Screening, Distribution, Packaging, Powdered Sugar/Starch								
Screening and Distribution #1	S-5	0.25	0.25	0	0	0	0	0
Screening and Distribution #2	S-6	0.82	0.82	0	0	0	0	0
Powdered Sugar/Starch Bins[b]	S-16	0.58	0.58	0	0	0	0	0
Sugar Packaging Baghouse								
Packing Dust Collector	S-4	0.90	0.90	0	0	0	0	0
Granular Carbon Furnace	S-12	3.07	3.07	1.25	13.14	13.14	4.38	0.077
Alcohol Usage	021	0	0	0	0	0	15.00	0
TOTAL ALL REFINERY SOURCES		21.40	21.40	1.25	13.14	13.14	19.38	0.077

[a] Based on permit no. 0510003-014-AV.

[b] Calculated assuming 5% of SO2 is SO3, and then convert to

Table B-11. Baseline 2001-2002 Short-Term Emissions for Clewiston Boiler No. 3, U.S. Sugar Corp.

Pollutant	Bagasse Firing					Fuel Oil Firing					CURRENT SHORT-TERM EMISSIONS (lb/hr)
	Emission Factor		Ref.	Heat Input (a) (MMBtu/hr)	Emissions (lb/hr)	Emission Factor		Ref.	Heat Input (b) (MMBtu/hr)	Emissions (lb/hr)	
Particulate Matter (Total)	0.17	lb/MMBtu	1	180	30.6	0.1	lb/MMBtu	9	--	--	30.6
Particulate Matter (PM_{10})	0.158	lb/MMBtu	2	180	28.5	0.085	lb/MMBtu	10	--	--	28.5
Sulfur Dioxide	0.010	lb/MMBtu	3	159	1.6	1.46	lb/MMBtu	11	21	30.88	32.5
Nitrogen Oxides	0.152	lb/MMBtu	4	159	24.1	0.31	lb/MMBtu	12	21	6.56	30.7
Carbon Monoxide	4.9	lb/MMBtu	5	180	882.0	0.033	lb/MMBtu	12	--	--	882.0
Volatile Organic Compounds	0.20	lb/MMBtu	6	180	36.0	0.0019	lb/MMBtu	12	--	--	36.0
Sulfuric Acid Mist	0.00061	lb/MMBtu	7	159	0.10	0.09	lb/MMBtu	7	21	1.89	2.0
Lead	3.80E-05	lb/MMBtu	8	180	0.0068	1.01E-05	lb/MMBtu	12	--	--	0.0068
Mercury	1.40E-05	lb/MMBtu	8	180	0.0025	7.53E-07	lb/MMBtu	12	--	--	0.0025
Fluorides	2.90E-04	lb/MMBtu	13	159	0.046	3.73E-02	lb/MMBtu	12	21	0.79	0.83

Footnotes:

(a) Based on actual heat input during 12/18/2001 compliance test (180 MMBtu/hr).

(b) Based on the average fuel oil usage during 2001 of 92 gal/hr times a factor of 1.5 (=140 gal/hr). Actual fuel oil heating value of 151,063 Btu/gal.

BDL = below detection limit.

References:

(1) Based on 12/18/2001 compliance test.

(2) Based on 93% of PM emissions for bagasse burning based on limited testing of a bagasse boiler.

(3) Based on source testing of Boiler No. 1 in December 2000.

(4) Based on source testing of Boiler No. 3 in 1995.

(5) Average of historic CO test data from Boiler No. 3.

(6) Based on historic VOC test data from similar cell type boilers in sugar industry.

(7) Based on assuming 5% of SO2 emissions are equal to SO3, based on AP-42 Section 1.3, Fuel Oil Combustion.
Conversion of SO3 to H2SO4 (SO3 x 98/80).

(8) Based on average bagasse analysis for Clewiston mill.

(9) Based on permit limit for oil firing.

(10) Assumed as 85% of PM emissions.

(11) Based on actual fuel sulfur content of 1.34% and 151,063 Btu/gal for 2001.

(12) Based on AP-42, Section 1.3, Fuel Oil Combustion.
NOx - 47 lb/1000 gal; CO - 5 lb/1000 gal; VOC - 0.28 lb/1000 gal;
Lead - 1.51E-03 lb/1000 gal; Mercury - 1.13E-04 lb/1000 gal; Beryllium - 2.85E-05 lb/1000 gal
Fluorides - 3.73E-02 lb/1000 gal

(13) From stack testing on bagasse only at Okeelanta Power (now New Hope Power) cogen facility.

Table B-12. Summary of Stack Parameters for Sugar Refinery Sources Used in Modeling of U.S. Sugar Clewiston Mill

Emission Unit	Modeling ID	Stack Height		Stack Diameter		Temperature		Flow Rate		Velocity [a]		Relative Location [b]			
												X		Y	
		(ft)	(m)	(ft)	(m)	(F)	(K)	(dscfm)	(acfm)	(ft/s)	(m/s)	(ft)	(m)	(ft)	(m)
EXISTING AND FUTURE REFINERY SOURCES															
Screening & Distribution Vacuum	S1	65	19.8	0.50	0.15	68	293.2	990	1,705	0.29	0.01	664.79	202.63	-155.17	-47.30
100 lb Bagging Vacuum System	S2	65	19.8	0.50	0.15	90	305.4	872	1,564	0.29	0.01	700.98	213.66	-147.48	-44.95
5 lb Bagging Vacuum System	S3	65	19.8	0.50	0.15	90	305.4	984	1,585	0.29	0.01	700.98	213.66	-147.48	-44.95
Packaging Dust Collector	S4	60	18.3	1.94	0.59	125	324.8	9,589	11,500	0.29	0.01	774.34	236.02	-131.89	-40.20
Screening and Distribution #1	S5	72	21.9	0.95	0.29	125	324.8	2,668	3,200	0.29	0.01	700.98	213.66	-147.48	-44.95
Screening and Distribution #2	S6	72	21.9	1.94	0.59	125	324.8	8,755	10,500	0.29	0.01	700.98	213.66	-147.48	-44.95
Conditioning Silo No. 2	S7	130	39.6	1.37	0.42	110	316.5	2,641	3,000	0.29	0.01	637.28	194.24	-150.8	-45.96
Conditioning Silo No. 4	S8	130	39.6	1.37	0.42	110	316.5	2,641	3,000	0.29	0.01	602.07	183.51	-158.28	-48.24
Conditioning Silo No. 6	S9	130	39.6	1.37	0.42	110	316.5	2,641	3,000	0.29	0.01	566.85	172.78	-165.77	-50.53
White Sugar Dryer Baghouse	S10	75	22.9	7.31	2.23	115	319.3	94,488	113,000	0.29	0.01	695.66	212.04	-194.62	-59.32
V. H. P. Sugar Dryer Baghouse	S11	10	3.0	4.79	1.46	115	319.3	110,042	127,000	0.29	0.01	2045.01	623.32	214.88	65.50
Granular Carbon Furnace	S12	30	9.1	2.00	0.61	160	344.3	--	4,300	22.8	6.9	603.97	184.09	-398.13	-121.35
FUTURE ONLY REFINERY SOURCES[c]															
Conditioning Silo No. 1	S13	130	39.6	1.37	0.42	110	316.5	2,641	4,300	0.29	0.09	622.85	189.84	-92.52	-28.20
Conditioning Silo No. 2	S14	130	39.6	1.37	0.42	110	316.5	2,641	4,300	0.29	0.09	588.61	179.41	-99.8	-30.42
Conditioning Silo No. 3	S15	130	39.6	1.37	0.42	110	316.5	2,641	4,300	0.29	0.09	549.49	167.48	-108.12	-32.95
Powdered Sugar Starch Bins	S16	55	16.8	2.00	0.61	100	310.9	6,128	--	34.5	10.5	767.14	233.82	-266.32	-81.17

[a] All refinery sources except granular carbon furnace have horizontal discharge: velocity set at 0.01 m/s for modeling purposes.

[b] Relative to Boiler No. 4 stack location.

Table B-13. Boiler No. 3 Stack Parameters[a] Used in the Significant Impact Modeling Analysis

	Relative Location[b]												
	X		Y		Stack Height		Stack Diameter		Flow Rate	Temperature		Velocity	
Source	ft	m	ft	m	ft	m	ft	m	acfm	°F	K	ft/s	m/s
Boiler No. 3	95	28.96	18	5.49	213	64.9	8.0	2.44	140,000	135	330	46.42	14.15

[a] Parameters based on 2002 stack tests.

[b] Relative to the modeling origin, i.e., the Boiler No. 4 stack location.

APPENDIX C

GOOD COMBUSTION PRACTICES FOR BOILER NO. 8

C.0 GOOD COMBUSTION PRACTICES FOR BOILER NO. 8

C.1 PURPOSE OF GCP PLAN

The determination of Best Available Control Technology for NO_x and VOC emissions from Boiler No. 8 (EU-009) relies on "good combustion practices". Control and minimization of CO emissions also relies on these practices. The purpose of this document is to summarize the operational, maintenance, and monitoring procedures that will lead to the minimization of CO and VOC emissions and the optimization of NO_x emissions, consistent with good combustion practices.

C.2 PREPARATION FOR OPERATIONS

1. Prior to each harvest season, the boiler proper, its air ductwork, air heaters and electrostatic precipitator (ESP) will be properly cleaned, inspected and repaired.
2. All refractory and boiler casing will be inspected and repaired where needed.
3. Outside of boiler tubes will have loose scale removed and boiler will be cleaned of loose scale, sand and other debris.
4. Boiler grates will be inspected and cleaned as well as being checked for mechanical operation.
5. All fans and fan drives will be inspected and repaired as needed.
6. All pumps and pump drives will be inspected and repaired as needed.
7. All oil burners and natural gas will be cleaned and inspected as well as related piping, atomizing steam, and air registers.
8. Prior to each harvest season, the wet cyclone and ESP will be inspected.
9. Prior to each harvest season, all instruments for boiler operation and control (including oxygen and carbon monoxide process monitors) are inspected, repaired and calibrated as required. This will be recorded by the instrument shop in its repair log.

C.3 BOILER OPERATION AND CONTROLS

The senior most experienced boiler supervisor instructs other boiler room supervisors, boiler operators, and other appropriate personnel in proper boiler and scrubber operations so as to minimize stack emissions of CO and VOC, and so as to optimize stack emissions of NO_x. This includes instruction for observing the oxygen and carbon monoxide process monitors to promote good combustion as well as adjusting operations in response to an alarm condition. This instructional program is presented prior to each harvest season and is included in the orientation and training provided to new boiler room employees. The training will impress upon supervisors and operators the importance of proper boiler operation in order to minimize emissions.

C.4 CO AND VOC CONTROLS

CO emissions are to be minimized by the proper application of Good Combustion Practices (GCP). To provide reasonable assurance that GCP are being employed:

1. The boiler operator will maintain steam rate at optimal or desired rate by controlling feed of bagasse fuel into the boiler. Combustion air to the boiler will be maintained at the highest possible level (resulting in sufficient excess air whenever feasible) in order to promote good combustion.
2. The boiler operator will periodically (at least once per hour) view the stack video monitor to visually confirm that good combustion is taking place. (Individual stack plumes are monitored continuously through a closed circuit television system.) If an abnormal plume is observed, the operator will immediately take corrective action. The boiler operator will log the occurrence and duration of all such events in the boiler operation log, along with the corrective action taken. These records will be kept for a period of at least two years.
3. Process monitors shall be installed to monitor the oxygen (O2) content and the carbon monoxide (CO) content of the boiler flue gas. The instrument readouts will be located in the boiler control room to provide real time data to the boiler operator. The boiler operators will be instructed in the use of the O2 and CO flue gas process monitors for combustion control and to ensure sufficient excess air levels. The boiler operators shall periodically observe each process monitor and adjust the boiler operation, consistent with good combustion practices. Corrective actions include, but are not limited to, adjusting the air-to-fuel ratio, adjusting the ratio of under-fire air to over-fire air, and firing some fuel oil in place of bagasse. For each such incident, the operator shall summarize the corrective actions taken and the approximate time when operation within the target parameter(s) was regained.

C.5 NO_X CONTROLS

NO_x emissions are to be optimized by the proper application of Good Combustion Practices (GCP). However, the application of GCP to minimize CO and VOC emissions may result in increased NO_x emissions. This is because factors, which promote good combustion and result in lower CO and VOC emissions, such as higher excess air and higher combustion temperatures, result in higher NO_x emissions. This is the nature of the combustion process. Therefore, GCP to optimize NO_x emissions is considered to be the same practices used to minimize CO and VOC emissions, as described above.

C.6 MISCELLANEOUS

1. Several times per shift, the boiler grates and feeders are examined for proper distribution and any necessary operational changes are made. Any unusual observations are logged once per shift.
2. Once per day, on the day shift, the boiler will be given a walk-around inspection with the following items being checked and repaired as needed and in coordination with the production schedule: Fans, pumps, casing, ducting, and scrubber.
3. On every shift burners are inspected and cleaned if dirty.
4. On every shift, precautions will be taken as necessary to control visible emissions of fugitive matter (dust and bagasse, etc.)

APPENDIX D

BOILER NO. 7 TEST DATA

CO Test Data

CO Emission Tests Performed on Boiler No. 7 at U.S. Sugar Corporation - Clewiston Mill

Unit	Boiler Type	Test Date	Stack Gas Flow Rate (dscfm)	Steam Rate (lb/hr)	Heat Input Rate (MMBtu/hr)	Bagasse Burning Rate [1] (TPH)	CO Emissions (EPA Method 10)			Oxygen (%, dry)	CO Emissions corrected to 3% O_2 (ppmvd)	CO Emissions corrected to 7% O_2 (ppmvd)
							lb/hr	lb/MMBtu	ppmvd			
Boiler 7	Vibrating Grate	11/17/97	157,787	349,315	734.00	101.94	202.93	0.276	295.0	6.56	368	286
Boiler 7	Vibrating Grate	11/17/97	163,257	343,200	714.00	99.17	314.59	0.441	442.0	6.87	563	438
Boiler 7	Vibrating Grate	11/17/97	153,899	352,603	735.00	102.08	183.17	0.249	273.0	6.45	338	263
Boiler 7	Vibrating Grate	02/08/99	175,664	358,154	734.90	102.07	119.78	0.163	156.4	6.40	193	150
Boiler 7	Vibrating Grate	02/08/99	177,250	343,636	701.70	97.46	90.97	0.130	117.7	7.50	157	122
Boiler 7	Vibrating Grate	02/08/99	176,423	362,368	741.30	102.96	120.25	0.162	156.4	7.50	209	162
Boiler 7	Vibrating Grate	12/17/99	134,535	369,429	763.08	105.98	412.47	0.540	703.3	3.60	728	566
Boiler 7	Vibrating Grate	12/17/99	134,831	357,429	736.74	102.33	88.88	0.120	151.2	4.80	168	131
Boiler 7	Vibrating Grate	12/17/99	136,090	366,176	755.14	104.88	151.89	0.201	256.0	4.90	286	223
Boiler 7	Vibrating Grate	01/05/01	179,424	327,500	655.88	91.09	54.67	0.083	69.9	9.08	106	82
Boiler 7	Vibrating Grate	01/05/01	174,762	326,667	667.68	92.73	42.19	0.063	55.4	8.98	83	65
Boiler 7	Vibrating Grate	01/06/01	172,827	328,333	675.11	93.77	51.98	0.077	69.0	8.95	103	80
Boiler 7	Vibrating Grate	01/09/02	130,764	324,545	691.41	96.03	191.71	0.277	336.3	6.67	422	329
Boiler 7	Vibrating Grate	01/09/02	136,455	331,714	706.88	98.18	220.73	0.312	371.7	6.43	459	357
Boiler 7	Vibrating Grate	01/09/02	140,707	333,429	708.68	98.43	415.74	0.587	677.7	6.41	836	650
Boiler 7	Vibrating Grate	11/15/02	148,856	363,659	772.94	107.35	283.05	0.366	436.2	6.56	544	423
Boiler 7	Vibrating Grate	11/15/02	155,948	343,200	727.96	101.11	97.25	0.134	143.0	7.65	193	150
Boiler 7	Vibrating Grate	11/15/02	150,966	334,737	709.05	98.48	81.08	0.114	123.2	7.96	170	132
	Number of Runs		18	18	18	18	18	18	18	18	18	18
	MEAN		**155,580**	**345,339**	**718.4**	**99.78**	**173.5**	**0.239**	**269**	**6.85**	**329**	**256**
	MINIMUM		130,764	324,545	655.9	91.09	42.2	0.063	55	3.60	83	65
	MAXIMUM		179,424	369,429	772.9	107.35	415.7	0.587	703	9.08	836	650
	STD DEVIATION		17,373	15,067	32.3	4.49	116.8	0.158	196	1.46	222	173
	95% CL OF RUNS		**190,325**	**375,474**	**783.1**	**108.76**	**407.1**	**0.555**	**661**	**9.76**	**774**	**602**
	GEOMETRIC MEAN		**155,219**	**345,029**	**717.7**	**99.68**	**139.5**	**0.194**	**207**	**6.68**	**265**	**206**

Notes:
lb/hr = pounds per hour.
lb/MMBtu = pounds per million British thermal units.
lb/ton = pounds per ton.
MMBtu/hr = million British thermal units per hour.
TPH = tons per hour.

Footnotes:
[1] Assumed 3,600 Btu/lb average heat content for wet bagasse, except where noted.

Criteria Pollutants Test Data

Compliance Test Averages for Boiler No. 7 - U.S. Sugar Corporation - Clewiston

Boiler Type	Test Date	Number of runs	Steam Rate (lb/hr)	Heat Input Rate (MMBtu/hr)	Bagasse Burning Rate (TPH)	SO2 Emissions (EPA Method 6)		PM Emissions (EPA Method 5)		CO Emissions (EPA Method 10)		NOx Emissions (EPA Method 7E)		VOC Emissions as Carbon (EPA Method 18/25A)		Oxygen (%, dry)
						lb/hr	lb/MMBtu	lb/hr	lb/MMBtu	lb/hr	lb/MMBtu	lb/hr	lb/MMBtu	lb/hr	lb/MMBtu	
Vibrating Grate	11/17/97	3	348,373	727.67	101.06			2.35	0.003	233.56	0.322	164.78	0.226	8.60	0.012	6.63
Vibrating Grate	11/18/97	3	356,538	743.33	103.24	10.39	0.014									5.78
Vibrating Grate	02/08/99	3	354,719	725.97	100.83			13.95	0.019	110.33	0.152	179.04	0.247	0.48	0.001	7.13
Vibrating Grate	12/17/99	3	364,345	751.65	104.40			9.08	0.012	217.75	0.287	141.91	0.189	11.55	0.015	4.43
Vibrating Grate	01/05/01	3	327,500	666.22	92.53			9.99	0.015	49.61	0.074	145.72	0.219	0.70	0.001	4.43
Vibrating Grate	01/09/02	3	329,896	702.32	97.55			6.20	0.009	276.06	0.392	130.73	0.186	80.78	0.114	6.50
Vibrating Grate	11/15/02	3	347,199	736.65	102.31			14.43	0.020	153.79	0.205	148.44	0.202	5.39	0.007	7.39
Number of Tests			7	7	7	1	1	6	6	6	6	6	6	6	6	7
MEAN			**346,938**	**721.97**	**100.27**	**10.39**	**0.014**	**9.33**	**0.013**	**173.52**	**0.239**	**151.8**	**0.211**	**17.92**	**0.025**	**6.0**
MINIMUM			327,500	666.22	92.53			2.35	0.003	49.61	0.074	130.7	0.186	0.48	0.001	4.4
MAXIMUM			364,345	751.65	104.40			14.43	0.020	276.06	0.392	179.0	0.247	80.78	0.114	7.4
STD DEVIATION			13,700	29.14	4.05			4.61	0.006	84.63	0.117	17.3	0.023	31.10	0.044	1.2
95% CL OF TESTS			**374,338**	**780.26**	**108.37**		**0.056**	**18.56**	**0.025**	**342.78**	**0.473**	**186.4**	**0.258**	**80.12**	**0.113**	**8.5**
GEOMETRIC MEAN			**346,704**	**721.46**	**100.20**		**0.012**	**8.02**	**0.011**	**150.93**	**0.209**	**151.0**	**0.210**	**4.94**	**0.007**	**5.9**

Organic HAPs Test Data

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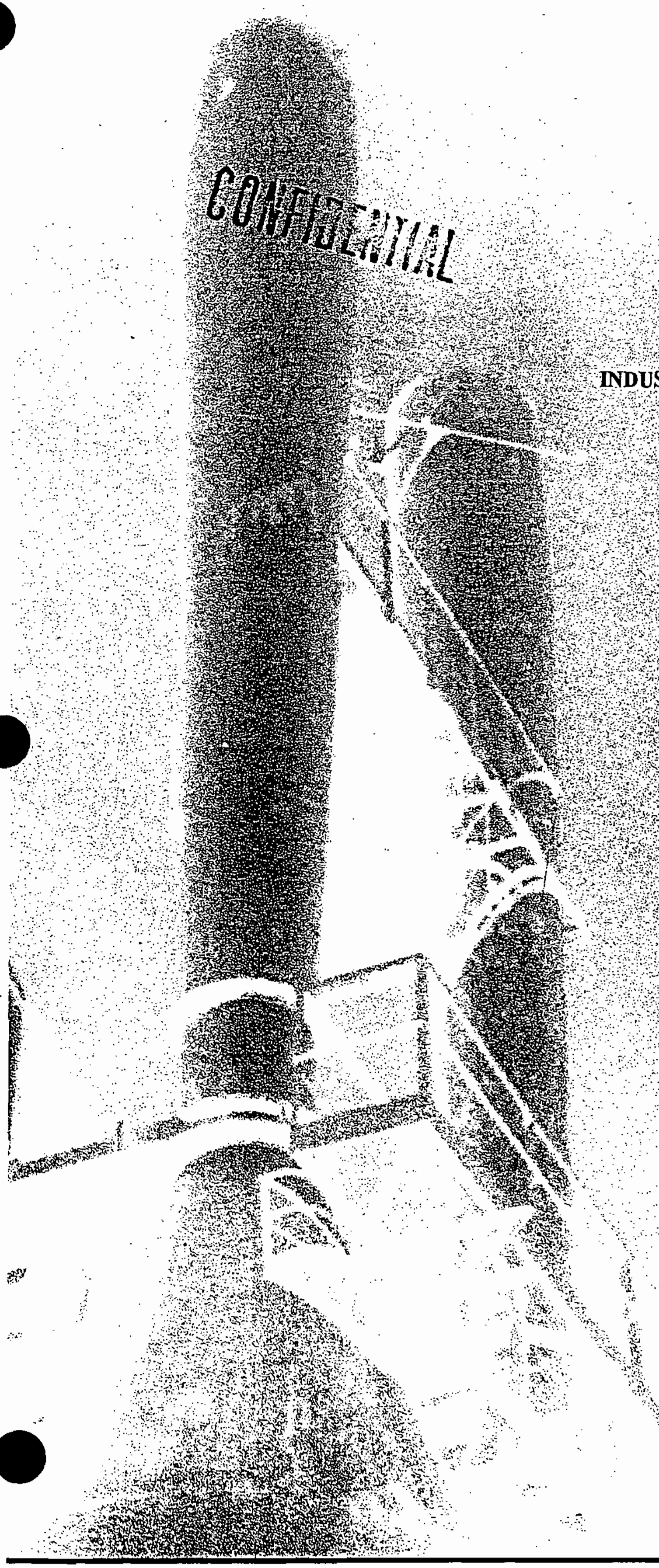

SOURCE TEST REPORT FOR CRITERIA POLLUTANTS AND HAZARDOUS AIR POLLUTANTS

INDUSTRIAL COMBUSTION COORDINATING RULEMAKING PROJECT

BOILER 7
ESP OUTLET
VIBRATING GRATE
UNITED STATES SUGAR CORPORATION
CLEWISTON, FLORIDA

FDEP PERMIT NUMBER AC26-238006

JANUARY 31 & FEBRUARY 1, 2000

PREPARED FOR:

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1.0 INTRODUCTION

On January 31 and February 1, 2000, Air Consulting and Engineering, Inc. (ACE) conducted emissions testing for criteria pollutants and hazardous air pollutants (HAPs) on the ESP outlet of the bagasse fired Boiler 7 at U.S. Sugar Corporation's (USSC) Clewiston Mill located in Clewiston, Florida.

These test series were conducted as part of the Industrial Combustion Coordinated Rulemaking (ICCR) process to gather emissions data for HAPs in order to establish guidelines for the Maximum Achievable Control Technology (MACT) for the sugar industry. This report provides test results for one of the four boilers tested in the study.

The following parameters were targeted using United States Environmental Protection Agency (EPA) Methods;

Pollutant	EPA Sampling Method	EPA Analytical Method
Criteria Pollutants		
PM	SW-846 M-0010	EPA 5
CO	EPA 10	EPA 10
NO_x	EPA 7E	EPA 7E
VOC (FIA)	EPA 25A	EPA 25A
HAPs		
Semi Volatiles:		
Phenols	SW-846 M-0010	SW-846 EPA 8270A
PAHs	SW-846 M-0010	SW-846EPA 8270A
Volatiles:		
Benzene	EPA 18	SW-846 EPA 8260
Toluene	EPA 18	SW-846 EPA 8260
1,1,2-Trichloroethane	EPA 18	SW-846 EPA 8260
Xylenes	EPA 18	SW-846 EPA 8260
Water-soluble VOCs:		
Formaldehyde	NCASI Chilled Impingers	NCASI
Acrolein	NCASI Chilled Impingers	SW-846 EPA 8260
Acetaldehyde	NCASI Chilled Impingers	SW-846 EPA 8260
Methanol	NCASI Chilled Impingers	GC/FID Method 18

Messers Don Griffin and Brett Nesbitt of USSC coordinated testing and provided the boiler operations data.

2.0 SUMMARY AND DISCUSSION OF RESULTS

Run 2's test results were excluded from the averages, since the boiler shut down during the test and was restarted. This does not represent normal operational conditions. The data, however, was reported for informational purposes.

2.1 Criteria Pollutants

Table 1 is a summary of the emission results and flue gas parameters.

The modified method 5 train (SW-846 M-0010) measured particulate, semi-volatile organics and flue gas parameters. The resulting volumetric flow rate was used in calculating mass emission rates for all pollutants in pounds per hour. The sample volume, however, differed for each sampling train.

Particulate (based on filter analysis only), NO_x and CO emissions averaged 0.151, 0.201, and 0.446 pounds per million BTU (lbs/MMBTU) of heat input to the boiler, and 112.29, 144.24, and 320.15 pounds per hour (lbs/hr), respectively. Total hydrocarbon emissions including methane measured by FIA averaged 0.020 lbs/MMBTU and 13.75 lbs/hr as Carbon. Oxygen and Carbon Dioxide content in the flue gas were measured to be 6.4 and 14.1 percent.

The fuel factor for bagasse, calculated using the results of the bagasse ultimate analysis, was 9440 scf/MMBTU.

Total hydrocarbon (THC) emissions were measured by EPA Method 25A for informational purposes as an aid in estimating proper sample volumes for the HAPs sampling trains. THC emissions contain a large portion of methane.

Particulate, stack gas parameters and gaseous emissions data are presented in Appendices A, and D. Production rate summaries are provided in Appendix F. These data were obtained from control room recordings of steam flow, temperature, and pressure as well as feed water temperature and pressure. Steam integrator readings were recorded at the beginning and at the end of the each test run.

Table 1. Particulate and Gaseous Emission Summary
Boiler 7 - Scrubber Outlet
United States Sugar Corporation - Clewiston Mill
Clewiston, Florida
January 31 and February 1, 2000

Run Number	Time	Steam Rate	Heat Input	Flow Rate	Particulate Emissions*		NOx Emissions		CO Emissions	
		lbs/hr	MMBTUH	dscfm	lbs/MMBTU	lbs/hr	lbs/MMBTU	lbs/hr	lbs/MMBTU	lbs/hr
1	1738-1838	350420	658.5	146237	0.0610	40.41	0.235	154.92	0.459	302.54
2**	1103-1211	334857	692.9	154359	0.2130	147.70	0.221	153.44	0.594	411.45
3	1321-1431	355200	735.1	143258	0.1740	127.97	0.169	124.14	0.548	402.93
4	1545-1651	372632	768.5	145788	0.2190	168.49	0.200	153.67	0.332	254.97
Average	---	359417	720.7	145094	0.1513	112.29	0.201	144.24	0.446	320.15

*based on filter analysis only - probe washes were not included
** Run 2 was excluded from average because boiler shut down for 10 minutes and was restarted

Maximum Boiler Capacity: 738 MMBTUH

Average THC Emission as measured by a FIA calibrated with propane in air: 0.020 lbs/MMBTU as Carbon
13.75 lbs/hr as Carbon

Allowable Emissions
PM = 0.030 lbs/MMBTU & 21.66 lbs/hr
NOx = 0.45 lbs/MMBTU

2.2 Hazardous Air Pollutants

Table 1A summarizes total organic HAPs emissions.

2.2.1 Semi- Volatile Organic Compounds

Table 2 is a summary of all semi-VOST target compounds. Total phenolic compounds averaged 0.00002 lbs/MMBTU and 0.0131 lbs/hr. Polynuclear aromatic hydrocarbons (PAHs) averaged 0.00004 lbs/MMBTU and 0.029 lbs/hr. The balance of the semi-volatile compounds totaled 0.0004 lbs/MMBTU and 0.315 lbs/hr. Overall Semi-VOST emissions are 0.0005 lbs/MMBTU and 0.357 lbs/hr.

2.2.2 Volatile Organic Compounds

All detected compounds including the target compounds, Benzene (0.0019 lbs/MMBTU, 1.423 lbs/hr) and Toluene (0.000062lbs/MMBTU, 0.0469 lbs/hr) are listed in Table 3. The overall total VOST averaged 0.0019 lbs/MMBTU and 1.47 lbs/hr.

2.2.3 Water-soluble Volatile Organic Compounds

Formaldehyde emissions averaged 0.0012 lbs/MMBTU and 0.83 lbs/hr, respectively. Acrolein, Acetaldehyde and Methanol concentration were undetected. Ethanol and Isopropanol concentrations were below detection limits (less than 0.0001 lbs/MMBTU). Results are summarized in Table 4.

Only detected compounds were reported in the tables. For compounds, which showed detectable and undetectable concentrations in the three test runs, the undetectable portion was reported at ½ of the compound's detection limit.

Semi-VOST, VOST and water soluble VOC data are presented in Appendices A, B, and C.

Table 1A. **Hazadous Organic Air Pollutant Emission Summary**
Boiler 7 - Scrubber Outlet
United States Sugar Corporation - Clewiston Mill
Clewiston, Florida
January 31 and February 1, 2000

Run Number	Time	Steam Rate	Heat Input	Flow Rate	Total Semi-Vost		Total Vost - EPA 18		Total WS-Vost*		Total Organic HAPS*	
		lbs/hr	MMBTUH	dscfm	lbs/MMBTU	lbs/hr	lbs/MMBTU	lbs/hr	lbs/MMBTU	lbs/hr	lbs/MMBTU	lbs/hr
1	1738-1838	350420	658.5	146237	0.0008	0.500	0.0004	0.28	0.0012	0.80	0.002	1.58
2**	1103-1211	334857	692.9	154359	0.0028	1.930	0.0052	3.62	0.0057	3.93	0.014	9.48
3	1321-1431	355200	735.1	143258	0.0004	0.310	0.0003	0.20	0.0015	1.08	0.002	1.59
4	1545-1651	372632	768.5	145788	0.0003	0.260	0.0051	3.93	0.0008	0.62	0.006	4.81
Average	---	359417	720.7	145094	0.0005	0.357	0.0019	1.47	0.0012	0.83	0.004	2.66

* **excluding Ethanol & Isopropanol which are not HAPS**

** Run 2 was excluded from average because boiler shut down for 10 minutes and was restarted

Table 2. **Hazardous Air Pollutants - Semi-Volatile Organic Compounds Emission Summary**
Test Method 0010/Analytical Method 8270A
Boiler 7 - Scrubber Outlet
United States Sugar Corporation - Clewiston Mill
Clewiston, Florida
January 31 and February 1, 2000

Run Number	1	2*	3	4	Average
Time	1738-1838	1103-1211	1321-1431	1545-1651	
Steam Flow Rate (lbs/hr)	350420	334857	355200	372632	359417
Volumetric Flow Rate (SCFMD)	146237	154359	143258	145788	145094
Total Heat Input (MMBTUH)	658.54	692.85	735.07	768.50	720.70
Dry Std. Sample Volume (DSCF)	52.542	53.458	51.190	51.548	51.760
Phenols					
Phenol					
lbs/hr	0.0206	0.1146	0.0063	0.0037	0.0102
lbs/MMBTU	0.000031	0.000165	0.000009	0.000005	0.000015
2-Methylphenol					
lbs/hr	*0.0013*	0.0057	*0.0013*	*0.0013*	*0.0013*
lbs/MMBTU	*0.000002*	0.000008	*0.000002*	*0.000002*	*0.000002*
3&4-Methylphenol					
lbs/hr	*0.0015*	0.0134	*0.0016*	*0.0016*	*0.0016*
lbs/MMBTU	*0.000002*	0.000019	*0.000002*	*0.000002*	*0.000002*
TOTAL PHENOLIC COMPOUNDS					
lbs/hr	**0.023**	**0.134**	**0.009**	**0.007**	**0.0131**
lbs/MMBTU	**0.00004**	**0.00019**	**0.00001**	**0.00001**	**0.00002**
Polynuclear Aromatic Hydrocarbons (PAHs)					
Acenaphthylene					
lbs/hr	*0.0003*	0.0176	0.0006	0.0008	0.0006
lbs/MMBTU	*0.000000*	0.000025	0.000001	0.000001	0.000001
Anthracene					
lbs/hr	0.0003	0.0007	*0.0001*	*0.0001*	0.0002
lbs/MMBTU	4.56E-07	1.01E-06	*1.36E-07*	*1.30E-07*	2.41E-07
Benzo(a)anthracene					
lbs/hr	0.0017	0.0017	0.0003	0.0008	0.0009
lbs/MMBTU	0.000003	0.000002	0.000000	0.000001	0.000001
Chrysene					
lbs/hr	0.002	0.003	0.001	0.001	0.0014
lbs/MMBTU	0.000003	0.000005	0.000001	0.000002	0.000002
Fluoranthene					
lbs/hr	0.008	0.017	0.001	0.002	0.0034
lbs/MMBTU	0.000012	0.000025	0.000001	0.000002	0.000005

Table 2. Continued

Run Number	1	2*	3	4	Average
Benzo(b)fluoranthene					
lbs/hr	0.0019	0.0032	*0.0003*	0.0008	0.0010
lbs/MMBTU	0.000003	0.000005	*0.000000*	0.000001	0.000001
Benzo(k)fluoranthene					
lbs/hr	0.0013	0.0021	*0.0003*	0.0007	0.0008
lbs/MMBTU	1.97E-06	3.03E-06	*4.08E-07*	9.11E-07	1.10E-06
Fluorene					
lbs/hr	*0.0002*	0.0019	*0.0002*	*0.0002*	*0.0002*
lbs/MMBTU	*3.04E-07*	2.74E-06	*2.72E-07*	*2.60E-07*	*2.79E-07*
Naphthalene					
lbs/hr	0.007	0.115	0.017	0.018	0.014
lbs/MMBTU	0.000011	0.000165	0.000023	0.000023	0.000019
2-Methylnaphthalene					
lbs/hr	*0.0007*	0.0031	*0.0007*	*0.0007*	*0.0007*
lbs/MMBTU	*0.000001*	0.000004	*0.000001*	*0.000001*	*0.000001*
Phenanthrene					
lbs/hr	0.0035	0.0149	0.0013	0.0016	0.0021
lbs/MMBTU	0.000005	0.000022	0.000002	0.000002	0.000003
Pyrene					
lbs/hr	0.0066	0.0153	0.0010	0.0018	0.0031
lbs/MMBTU	0.000010	0.000022	0.000001	0.000002	0.000005
Benzo(a)pyrene					
lbs/hr	0.0009	0.0010	*0.0004*	*0.0004*	0.0006
lbs/MMBTU	0.000001	0.000001	*0.000001*	*0.000001*	0.000001
TOTAL PAHs					
lbs/hr	**0.035**	**0.197**	**0.024**	**0.029**	**0.029**
lbs/MMBTU	**0.00005**	**0.00028**	**0.00003**	**0.00004**	**0.00004**

Table 2. Continued

Run Number	1	2*	3	4	Average
<u>Other Semi-Volatile Compounds</u>					
Bis(2-ethylhexyl)phthalate					
lbs/hr	0.4418	1.6041	0.2739	0.2282	0.3146
lbs/MMBTU	0.000671	0.002315	0.000373	0.000297	0.0004
Benzoic Acid**					
lbs/hr	0.0221	0.0370	0.0248	0.0187	0.0219
lbs/MMBTU	0.000034	0.000053	0.000034	0.000024	0.000031
<u>TOTAL OTHER COMPOUNDS</u>					
lbs/hr	**0.44**	**1.60**	**0.27**	**0.23**	**0.3146**
lbs/MMBTU	**0.0007**	**0.0023**	**0.0004**	**0.0003**	**0.0004**
OVERALL TOTAL SEMI-VOLATILES					
lbs/hr	**0.50**	**1.93**	**0.31**	**0.26**	**0.3568**
lbs/MMBTU	**0.0008**	**0.0028**	**0.0004**	**0.0003**	**0.0005**

**** Not a HAPS - excluded in average**

* Run 2 was excluded from average because boiler went down for 10 minutes then was restarted

All compounds on the EPA 8270A list that are not tabulated were undetected at an average LOD < 0.0004 - 0.0016 lbs/hr. See Appendix A for individual LODs.
Italic bold - samples at 1/2 of detection limit

Table 3. **Hazardous Air Pollutants - Volatile Organic Emission Summary**
Test Method EPA 18/Analytical Method EPA 8260
Boiler 7 - Scrubber Outlet
United States Sugar Corporation - Clewiston Mill
Clewiston, Florida
January 31 and February 1, 2000

Run Number	1	2*	3	4	**Average**
Time	1738-1838	1103-1211	1321-1431	1545-1651	
Steam Flow Rate (lbs/hr)	350420	334857	355200	372632	359417
Volumetric Flow Rate (SCFMD)	146237	154359	143258	145788	145094
Total Heat Input (MMBTUH)	658.54	692.85	735.07	768.50	720.70
Dry Std. Sample Volume (DSCF)	0.211	0.212	0.210	0.210	0.211
Benzene					
lbs/hr	0.2677	3.4894	0.1855	3.8167	1.4233
lbs/MMBTU	0.0004	0.0050	0.0003	0.0050	1.88E-03
Toluene					
lbs/hr	***0.0131***	0.1301	***0.0140***	0.1136	0.0469
lbs/MMBTU	***1.99E-05***	0.0002	***1.90E-05***	0.0001	6.22E-05
OVERALL TOTAL VOST					
lbs/hr	**0.28**	**3.62**	**0.20**	**3.93**	**1.47**
lbs/MMBTU	**0.0004**	**0.0052**	**0.0003**	**0.0051**	**0.0019**

* Run 2 was excluded from average because boiler went down for 10 minutes then was restarted

NOTE: All compounds that are not tabulated were undetected at LOD<0.013 lbs/hr. See Appendix B for individual LODs. Naphthalene is reported on the semi-vost Table.

Laboratory Detection Limit: 1000 ng/sample ***Italic bold*** - samples at 1/2 of detection limit

Table 4. Hazardous Air Pollutants - Water Soluble VOC Emission Summary
Test Method NCASI Chilled Impingers
Boiler 7 - Scrubber Outlet
United States Sugar Corporation - Clewiston Mill
Clewiston, Florida
January 31 and February 1, 2000

Run Number	1	2*	3	4	Average
Time	1737-1837	1102-1203	1325-1425	1545-1645	
Steam Flow Rate (lbs/hr)	350420	334857	355200	372632	346826
Volumetric Flow Rate (SCFMD)	146237	154359	143258	145788	147951
Total Heat Input (MMBTUH)	658.54	692.85	735.07	768.50	695.49
Dry Std. Sample Volume (DSCF)	0.516	0.563	0.533	0.514	0.538
Formaldehyde					
lbs/hr	0.80	3.93	1.08	0.62	0.83
lbs/MMBTU	0.0012	0.0057	0.0015	0.0008	0.0012
Acrolein					
lbs/hr	UD	UD	UD	UD	UD
lbs/MMBTU	UD	UD	UD	UD	UD
Acetaldehyde					
lbs/hr	UD	UD	UD	UD	UD
lbs/MMBTU	UD	UD	UD	UD	UD
Methanol					
lbs/hr	UD	UD	UD	UD	UD
lbs/MMBTU	UD	UD	UD	UD	UD
OVERALL TOTAL WSVOC					
lbs/hr	**0.80**	**3.93**	**1.08**	**0.62**	**0.83**
lbs/MMBTU	**0.0012**	**0.0057**	**0.0015**	**0.0008**	**0.0012**

* Run 2 was excluded from average because boiler shut down for 10 minutes and was restarted

UD = Undetected
Ethanol and Isopropanol (not HAPS) Analysis showed undetected amounts

NOTE: Emission values in this table are based on the sum of measured pollutant concentration and limits of detection. See Appendix C for individual LODs.

Laboratory Detection Limits: ***Italic bold*** - samples at 1/2 of detection limit

Formaldehyde:	0.8 ug/sample, ~0.02 lbs/hr
all other compounds	1.0 ug/sample, ~0.03 lbs/hr

Hg, Mn, and HCl Test Data

Table 1. **Hydrochloric, Maganese and Mercury Emission Summary**
Boiler 7
U.S.Sugar Corporation - ~~Bryant~~ Clewiston Mill
Clewiston, Florida
December 31, 2002 & January 2, 2003

Run Number	Time	Flow Rate dscfm	Steam Rate lbs/hr	HCL Emissions lbs/MMBTU	HCL Emissions lbs/hr	Mn Emissions lbs/MMBTU	Mn Emissions lbs/hr	Mercury Emissions lbs/MMBTU	Mercury Emissions lbs/hr
1	1439-1542	164558	295652	7.34E-04	0.459	9.18E-04	0.5741	< 1.15E-07	< 7.19E-05
2	1/2/03 0833-0935	164409	292615	5.92E-04	0.365	3.81E-04	0.02346	< 9.08E-08	< 5.59E-05
3	1148-1250	149851	288000	2.84E-04	0.172	2.47E-04	0.1497	< 8.60E-08	< 5.22E-05
Average		159606	292089	5.37E-04	0.332	5.15E-04	0.2491	< 9.73E-08	< 6.00E-05

APPENDIX E

CLEWISTON MILL BAGASSE SAMPLING STUDY RESULTS

Metals Analyses for Bagasse from U.S. Sugar Clewiston

Parameter	Units	Concentration (dry basis) for Sample Weeks (collection dates): 1 (1/21/02)	1 (1/21/02) Duplicate	2 (1/28/02)	3 (2/4/02)	4 (2/11/02)	5 (2/18/02)	5 (2/18/02) Duplicate	6 (2/25/02)	7 (3/4/02)	8 (3/11/02)	8 (3/11/02) Duplicate	9 (3/18/02)	10 (3/25/02)	11 (4/1/02)	11 (4/1/02) Duplicate	Range [a] Min	Range [a] Max	Avg[a]	Parameter
Arsenic	ppm	0.6	0.6	0.5	0.5	< 0.4	0.3	0.2	0.2	0.3	0.4	0.4	< 0.3	0.4	0.3	0.4	0.2	0.6	0.35	Arsenic
Beryllium	ppm	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1	0.1	0.05	Beryllium
Cadmium	ppm	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1	0.1	0.05	Cadmium
Chromium	ppm	0.4	0.6	0.2	0.3	0.6	0.5	0.4	0.2	0.3	0.5	0.8	0.2	0.3	0.2	0.2	0.2	0.6	0.34	Chromium
Lead	ppm	0.3	0.2	< 0.3	< 0.3	< 0.4	< 0.3	< 0.3	< 0.3	0.2	< 0.3	0.3	< 0.3	< 0.3	< 0.3	< 0.3	0.2	0.3	0.17	Lead
Manganese	ppm	8.1	7.5	7.2	8.9	7.4	8.2	8.0	6.2	5.6	8.0	8.9	5.8	6.3	10.9	11.8	5.6	10.9	7.51	Manganese
Mercury	ppm	< 0.1	< 0.1	< 0.1	< 0.1	< 0.22	< 0.2	< 0.17	< 0.1	< 0.1	< 0.2	< 0.2	< 0.22	< 0.02	< 0.02	< 0.02	0.01	0.11	0.06	Mercury
Nickel	ppm	< 0.2	0.2	< 0.2	< 0.2	0.5	0.2	< 0.2	0.2	< 0.2	0.3	0.2	< 0.2	< 0.2	0.2	0.3	0.1	0.5	0.18	Nickel
Selenium	ppm	1.0	1.0	0.7	0.8	0.4	0.5	0.7	0.5	0.7	0.8	0.9	0.6	0.7	0.7	0.7	0.4	1.0	0.67	Selenium
Moisture	%	50.6	51.3	46.6	51.9	54.3	51.4	49.2	48.2	48.1	46	50.1	49.6	52.1	48.4	49.5	46.0	54.3	49.7	Moisture
No. of Samples Composited		39	39	42	41	42	43	43	39	41	42	42	41	42	41	41	--	--	--	

Parameter	Units	Concentration (dry basis) for Sample Weeks (collection dates): 1 (1/21/02)	1 (1/21/02) Duplicate	2 (1/28/02)	3 (2/4/02)	4 (2/11/02)	5 (2/18/02)	5 (2/18/02) Duplicate	6 (2/25/02)	7 (3/4/02)	8 (3/11/02)	8 (3/11/02) Duplicate	9 (3/18/02)	10 (3/25/02)	11 (4/1/02)	11 (4/1/02) Duplicate	Range [a] Min	Range [a] Max	Avg[a]	Parameter
HHV	Btu/lb	7,922	7,922	7,978	7,824	7,884	7,852	7,852	8,073	7,911	8,037	8,037	7,953	7,994	8,058	8,058	7,824	8,073	7,949	HHV
Arsenic	lb/MMBtu	7.57E-05	7.57E-05	6.27E-05	6.39E-05	< 5.07E-05	3.82E-05	2.55E-05	2.48E-05	3.79E-05	4.98E-05	4.98E-05	< 3.77E-05	5.00E-05	3.72E-05	4.96E-05	1.89E-05	7.57E-05	4.40E-05	Arsenic
Beryllium	lb/MMBtu	< 1.26E-05	< 1.26E-05	< 1.25E-05	< 1.28E-05	< 1.27E-05	< 1.27E-05	< 1.27E-05	< 1.24E-05	< 1.26E-05	< 1.24E-05	< 1.24E-05	< 1.26E-05	< 1.25E-05	< 1.24E-05	< 1.24E-05	6.19E-06	6.39E-06	6.29E-06	Beryllium
Cadmium	lb/MMBtu	< 1.26E-05	< 1.26E-05	< 1.25E-05	< 1.28E-05	< 1.27E-05	< 1.27E-05	< 1.27E-05	< 1.24E-05	< 1.26E-05	< 1.24E-05	< 1.24E-05	< 1.26E-05	< 1.25E-05	< 1.24E-05	< 1.24E-05	6.19E-06	6.39E-06	6.29E-06	Cadmium
Chromium	lb/MMBtu	5.05E-05	7.57E-05	2.51E-05	3.83E-05	7.61E-05	6.37E-05	5.09E-05	2.48E-05	3.79E-05	6.22E-05	9.95E-05	2.51E-05	3.75E-05	1.24E-05	2.48E-05	1.24E-05	7.61E-05	4.12E-05	Chromium
Lead	lb/MMBtu	3.79E-05	2.52E-05	< 3.76E-05	< 3.83E-05	< 5.07E-05	< 3.82E-05	< 3.82E-05	< 3.72E-05	2.53E-05	< 3.73E-05	3.73E-05	< 3.77E-05	< 3.75E-05	< 3.72E-05	< 3.72E-05	1.86E-05	3.79E-05	2.17E-05	Lead
Manganese	lb/MMBtu	1.02E-03	9.47E-04	9.02E-04	1.14E-03	9.39E-04	1.04E-03	1.02E-03	7.68E-04	7.08E-04	9.95E-04	1.11E-03	7.29E-04	7.88E-04	1.35E-03	1.46E-03	7.08E-04	1.35E-03	9.44E-04	Manganese
Nickel	lb/MMBtu	< 2.52E-05	2.52E-05	< 2.51E-05	< 2.56E-05	6.34E-05	2.55E-05	< 2.55E-05	2.48E-05	< 2.53E-05	3.73E-05	2.49E-05	< 2.51E-05	< 2.50E-05	2.48E-05	3.72E-05	1.25E-05	6.34E-05	2.29E-05	Nickel
Selenium	lb/MMBtu	1.26E-04	1.26E-04	8.77E-05	1.02E-04	5.07E-05	6.37E-05	8.91E-05	6.19E-05	8.85E-05	9.95E-05	1.12E-04	7.54E-05	8.76E-05	8.69E-05	8.69E-05	5.07E-05	1.26E-04	8.46E-05	Selenium
																		Total =	1.17E-03	8-Metals
Mercury	lb/MMBtu	< 1.26E-05	< 1.26E-05	< 1.25E-05	< 1.28E-05	< 2.79E-05	< 2.55E-05	< 2.17E-05	< 1.24E-05	< 1.26E-05	< 2.49E-05	< 2.49E-05	< 2.77E-05	< 2.50E-06	< 2.48E-06	< 2.48E-06	1.24E-06	1.40E-05	7.90E-06	Mercury

[a] For concentrations that are reported as below detection limit the minimum, maximum, and average were calculated by taking one-half of detection limit. Duplicate samples were not included in the calculations.

APPENDIX F

STACK TEST DATA FROM NEW HOPE POWER PARTNERSHIP

Summary of Okeelanta Power/New Hope Power Stack Tests - Bagasse Firing

Pollutant	Stack Testing: 1/22/99-2/5/99 Pre-Mechanical Dust Collectors			Stack Testing: 12/99 - 01/00 Pre-Mechanical Dust Collectors			Stack Testing: 01/3/01-01/23/01 Post-Mechanical Dust Collectors		
	Unit A (lb/MMBtu)	Unit B (lb/MMBtu)	Unit C (lb/MMBtu)	Unit A (lb/MMBtu)	Unit B (lb/MMBtu)	Unit C (lb/MMBtu)	Unit A (lb/MMBtu)	Unit B (lb/MMBtu)	Unit C (lb/MMBtu)
Particulate (TSP)	0.27	0.12	0.20	0.221	0.039	0.230	0.016	0.021	0.010
Particulate (PM_{10})	0.02	0.01	0.02	0.0282	0.0092	0.0308	0.0153	0.0232	0.0131
Sulfur Dioxide	0.02	0	0	0.0011	0.0080	0.0143	0.022	0.019	0.014
Nitrogen Oxides	0.13	0.12	0.13	0.138	0.142	0.179	0.19	0.17	0.17
Carbon Monoxide	0.16	0.26	0.28	0.377	0.354	0.299	0.24	0.21	0.24
Volatile Organic Compounds	0.01	0.02	0.007	0.010	0.007	0.012	0.007	0.008	0.01
Arsenic	3.18E-05	6.50E-06	4.92E-06	1.40E-06	5.42E-06	8.46E-06	6.34E-05	4.17E-05	4.40E-05
Beryllium	<3.77E-07	<3.94E-07	<1.25E-07	<2.22E-07	<2.34E-07	<2.52E-07	<1.10E-07	<1.07E-07	1.76E-07
Chromium	9.33E-06	5.85E-06	5.40E-06	2.15E-06	4.54E-06	6.57E-06	5.22E-05	2.91E-05	2.41E-05
Copper	2.55E-05	1.03E-05	1.33E-05	8.67E-06	1.43E-05	2.67E-05	2.38E-05	2.23E-05	1.18E-05
Lead	2.00E-05	7.30E-06	6.30E-06	3.41E-06	6.68E-06	9.77E-06	3.81E-05	4.76E-05	1.63E-05
Mercury	4.41E-07	3.83E-07	5.41E-07	1.26E-07	1.68E-07	5.34E-07	1.29E-06	1.41E-06	8.38E-07
Fluorides	7.06E-05	4.07E-05	3.04E-05	3.70E-04	4.40E-04	3.90E-04	6.00E-04	4.00E-04	3.00E-04

Sources: Air Consulting Engineering, Inc., 2001; Golder, 2001

APPENDIX G

BAGASSE HANDLING SYSTEM EMISSIONS

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1.0 INTRODUCTION

As part of U. S. Sugar's PSD application for the addition of Boiler No. 8, U. S. Sugar is proposing modifications to the bagasse conveyor system within the Bagasse Handling System emissions unit. The modifications system will allow the system to accommodate Boiler No. 8. This report describes the existing and future system, control devices, and existing and future PM/PM_{10} emissions from the system.

2.0 PROJECT DESCRIPTION

2.1 EXISTING SYSTEM

The bagasse handling system handles the bagasse fuel resulting from the processing of the raw sugar cane at the mill. The bagasse is used as a primary fuel for combustion in Boiler Nos. 1, 2, 3, 4, and 7. A flow diagram of the existing bagasse handling system is shown in Figure G-1. As shown, bagasse is conveyed from the sugar cane grinding mills directly to the boilers, or to the bagasse storage pile. Bagasse can also be backfed from the storage pile. Currently, emission controls for the bagasse handling system consist of covered conveyors and enclosed or semi-enclosed transfer points. Fugitive dust emissions may occur from these bagasse conveying and handling activities. As part of the existing system, a portion of the bagasse is routed to the bagacillo system where the fines are separated from the bagasse with a rotor screen and transferred to the boiling house.

2.2 FUTURE BAGASSE HANDLING SYSTEM

In December 2001, U.S. Sugar submitted an application proposing to replace the existing bagasse conveyor system with a new conveyor system. On June 12, 2000, the Florida Department of Environmental Protection (DEP) issued construction permit No. 0510003-011-AC to replace the existing bagasse handling system. The permit was revised on March 7, 2002 (permit no. 0510003-015-AC). This construction has not yet been completed. With the addition of Boiler No. 8, additional changes will need to be made to accommodate Boiler No. 8. U.S. Sugar proposes the following changes to the bagasse handling system:

- Expand conveyor belt C4,
- Add a new conveyor belt to feed bagasse to Boiler No. 8, and
- Increase the bagasse throughput of the handling system.

A flow diagram of the proposed system is presented in Attachment UC-EU2-J1 of the application form. These changes will allow the bagasse handling system to accommodate Boiler No. 8.

In addition to the above changes, U.S. Sugar is proposing to install only five (5) of the six (6) dust collectors proposed in the December 2001 application. The dust collectors will be installed on conveyor transfer points, as shown in Attachment UC-EU2-J1. The fan size and velocity of each dust collector type are listed in Table G-1. The combined gas flow rate of the six dust collectors is 18,475 cubic feet per minute (cfm). The dust collectors are designed to achieve an outlet dust loading rate of 0.02 grains per actual cubic feet (gr/acf) or less, based on manufacturer's data.

U.S. Sugar is also proposing to eliminate the transfer belt conveyor No. 2 that was proposed in the December 2001 application.

3.0 AIR EMISSIONS

3.1 CURRENT EMISSIONS

The emissions from the existing bagasse conveying system have been quantified for both crop season and off-season operating conditions. The crop-season emissions are presented in Table G-2. The emission factors are based on the equation for fugitive dust emissions from EPA's AP-42 section on aggregate handling and storage piles (Section 13.2.4, 1/95). The moisture content is based on the upper value of the range presented in AP-42 that is applicable to this equation (4.8 percent). The moisture content in bagasse is typically 50 percent; therefore, using a lower moisture content will result in a more conservative estimate of actual emissions. The average annual wind speed is based on 5 years of meteorological data from the Palm Beach International Airport. This meteorological data is typically used to represent the meteorology at the Clewiston mill site. The average wind speed for the crop season (November through April) was used to quantify emissions from continuous drop and batch drop operations. Most of the transfer points are enclosed or partially enclosed to control fugitive dust emissions. The control efficiency for the existing enclosures was assumed to be 80 percent

The activity factors used in the emission estimates are based on actual 2000/2001 crop season data. Individual activity factors were derived as follows:

- 60 percent of total bagasse produced came from Tandem A (Mill Nos. 6A and 7A),
- 40 percent of total bagasse produced came from Tandem B (Mill Nos. 4B and 5B),
- Bagasse from Tandem B is split 50/50 between the Reversible No. 2 Back Feed Bagasse Belt Conveyor and the No. 2 Bagasse Drag Conveyor,
- 60 percent of bagasse consumed (487,556 tons) was fed to Boiler Nos. 1 through 4, based on the percentage of bagasse used by these boilers as per the 2000 AOR;

- 5 percent recycle was assumed,
- 168,000 tons of bagasse went through the bagacillo system and 84,000 tons went through the bagacillo cyclone,
- Estimated bagacillo cyclone efficiency of 99.999%, and
- 325,037 tons of bagasse was fed to Boiler No. 7, based on the percentage of bagasse used by this boiler as per the 2000 AOR.

The outside bagasse storage pile and associate front-end loaders will not be affected by the changes proposed in this application, so emissions were not estimated for these sources.

The total particulate matter (PM) emissions for the crop-season are estimated at 2.190 tons per year (TPY) and the particulate matter with aerodynamic diameter of less than 10 microns (PM_{10}) are estimated at 1.459 TPY.

The off-crop season emissions are presented in Table G-3. The average wind speed for the off-crop season (May through October) was used. The equation, moisture content and control efficiencies used in the off-crop calculations are the same as the values used for crop season emissions. The activity factors are based on operating data from the 2001 off-crop season. The PM emissions are estimated at 0.399 TPY and the PM_{10} emissions are estimated at 0.189 TPY.

The total PM and PM_{10} emissions from the existing bagasse handling system are estimated at 2.589 and 1.648 TPY, respectively.

3.2 FUTURE MAXIMUM EMISSIONS

The emissions from the future bagasse conveying system with Boiler No. 8 have been quantified for both crop season and off-season operating conditions. The crop season emissions are presented in Attachment UC-EU2-G8a. The emissions are based on the same moisture content, wind speed and equation as the current emission estimates. The activity factors were based on the maximum bagasse consumption for the crop season. The maximum crop season bagasse consumption was based on steam rate and heat input limits established in Permit No. 0500013-010-AC for Boiler Nos. 1, 2, 4, and 7, and the proposed steam rate and heat input limit for Boiler No. 8. These usage rates are presented in Table G-4. A recycle rate of 10 percent was assumed.

The outside bagasse storage pile and associated front-end loaders were not included in these calculations since these sources will be not be affected by the changes proposed in this application. The enclosures on the transfer points in the new conveying system will be better enclosures than the ones in the existing system. The system will be a tighter system to minimize spillage and wind blow material; therefore, the control efficiencies for the new enclosures were estimated to be 90 percent. The estimated maximum crop-season emissions for PM and PM_{10} are 8.991 TPY and 8.243 TPY, respectively.

The off-crop season emissions are presented in Attachment UC-EU2-G8b. The emissions are based on the same moisture content, wind speed and equation that the current off-crop season emissions were based. The activity factors were based on the maximum bagasse consumption for the off-crop season. The maximum off-crop season bagasse consumption was based on permit limits established in Permit No. 0500013-010-AC and the proposed rates for Boiler No. 8. These usage rates are presented in Table G-4. The estimated maximum off-crop emissions for PM and PM_{10} are 3.937 TPY and 3.824 TPY, respectively.

A summary of the estimated future maximum emissions is presented in Table G-5. The total PM and PM_{10} emissions from the future bagasse handling system are 12.928 TPY and 12.067 TPY, respectively.

A comparison of the change in emissions due to the proposed changes to the bagasse handling system is presented in Table G-5. The proposed changes will result in an estimated increase of 10.339 TPY of PM and 10.419 TPY of PM_{10}. The estimated increase is due primarily to the assumptions made for dust collectors, i.e., PM emissions are 0.02 grains/acf and the dust collectors operate continuously. Actual emissions are expected to decrease compared to the existing system.

3.3 MODEL PARAMETERS

The model input parameters for the crop and off-crop season for current and future operations of the bagasse handling system are presented in Tables G-6 and G-7, respectively.

Table G-1. Description of Dust Collectors on Bagasse Handling System, U.S. Sugar Clewiston

Dust Collector	Model [a]	Flow Rate (cfm)	Nonstack Emission Point Height (feet)
1	BV-6X8-120	3,550	57
2	BV-8X8-120	3,100	62
3	BV-6X7-120	4,725	61
4	BV-6X8-120	3,550	57
5	BV-6X8-120	3,550	57
Total Flow Rate (cfm) =		18,475	

[a] U.S. Sugar may install an equivalent dust collector.

Table G-2. U.S. Sugar Clewiston Bagasse Handling System Actual 2000-2001 Crop Season Fugitive Dust Emissions

SOURCE	TYPE OF OPERATION	M MOISTURE CONTENT (a) (%)	U WIND SPEED (b) (MPH)	UNCONTROLLED PM EMISSION FACTOR (c) (LB/TON)	UNCONTROLLED PM_{10} EMISSION FACTOR (c) (LB/TON)	CONTROL	CONTROL EFFICIENCY (%)	CONTROLLED PM EMISSION FACTOR (LB/TON)	CONTROLLED PM_{10} EMISSION FACTOR (LB/TON)	ACTIVITY FACTOR (d)	ESTIMATED ACTUAL ANNUAL PM EMISSIONS (TONS/YR)	ESTIMATED ACTUAL ANNUAL PM_{10} EMISSIONS (TONS/YR)
BAGASSE HANDLING												
MILL NOS. 6B/7B to NO. 1-A BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	556,244 TPY (e)	0.126	0.059
MILL NOS. 4B/5B to NO. 1-B BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	370,828 TPY (e)	0.084	0.040
NO. 1-A BAGASSE BELT CONVEYOR TO NO. 2 BAGASSE DRAG CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	556,244 TPY	0.126	0.059
NO. 1-B BAGASSE BELT CONVEYOR TO NO. 2 BAGASSE DRAG CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	185,414 TPY	0.042	0.000
NO. 1-B BAGASSE BELT CONVEYOR TO NO. 2 BACK FEED BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	185,414 TPY	0.042	0.020
NO. 2 BAGASSE DRAG CONVEYOR TO TRANSFER BELT CONVEYOR NO. 6	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	18,300 TPY	0.004	0.002
NO. 2 BAGASSE DRAG CONVEYOR TO BELT CONVEYOR NO. 3	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	485,916 TPY	0.110	0.052
NO. 2 BACK FEED BAGASSE BELT CONVEYOR TO BELT CONVEYOR NO. 3	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	0 TPY	0.000	0.000
BELT CONVEYOR NO. 3 TO BELT CONVEYOR NO. 4	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	485,916 TPY	0.110	0.052
BELT CONVEYOR NO. 4 TO DRAG CONVEYOR NO. 3	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	485,916 TPY	0.110	0.052
DRAG CONVEYOR NO. 3 TO TRANSFER BELT CONVEYOR NO. 5	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	13,500 TPY	0.003	0.001
TRANSFER BELT CONVEYOR NO. 5 TO LEVELING CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	NONE	0	0.00226	0.00107	13,500 TPY	0.015	0.007
TRANSFER BELT CONVEYOR NO. 6 TO LEVELING CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	NONE	0	0.00226	0.00107	18,300 TPY	0.021	0.010
BAGASSE STORAGE BIN	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	NONE	0	0.00226	0.00107	31,800 TPY	0.036	0.017
BAGASSE STORAGE BIN TO BOTTOM DRAG CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	31,800 TPY	0.007	0.003
BOTTOM DRAG CONVEYOR TO ELEVATOR BAGASSE CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	31,800 TPY	0.007	0.003
ELEVATOR BAGASSE CONVEYOR TO TRANSFER BELT CONVEYOR NO. 7	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	31,800 TPY	0.007	0.003
TRANSFER BELT CONVEYOR NO. 7 TO NO. 2 BACK FEED BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	31,800 TPY	0.007	0.003
DRAG CONVEYOR NO. 3 TO REVERSIBLE OUTSIDE BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	160,879 TPY	0.036	0.017
REVERSIBLE OUTSIDE BAGASSE BELT CONVEYOR TO OUTSIDE STORAGE BAGASSE	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	NONE	0	0.00226	0.00107	160,879 TPY	0.182	0.086
FRONT-END LOADER TO NORTH/SOUTH BAGASSE PILE ELEVATOR	BATCH DROP	4.8	12.4	0.00226	0.00107	NONE	0	0.00226	0.00107	46,400 TPY	0.052	0.025
NORTH/SOUTH BAGASSE PILE ELEVATOR TO REVERSIBLE OUTSIDE BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	NONE	0	0.00226	0.00107	46,400 TPY	0.052	0.025
REVERSIBLE OUTSIDE BAGASSE BELT CONVEYOR TO RETURN BAGASSE BELT CONVEYOR NO. 9	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	46,400 TPY	0.010	0.005
RETURN BAGASSE BELT CONVEYOR NO. 9 TO NO. 2 BACK FEED BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	0 TPY	0.000	0.000
RETURN BAGASSE BELT CONVEYOR NO. 9 TO NO. 2 BAGASSE DRAG CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	46,400 TPY	0.010	0.005
BAGACILLO SYSTEM												
NO. 2 BAGASSE DRAG CONVEYOR TO TRANSFER DRAG CONVEYOR NO. 4	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	168,000 TPY	0.038	0.018
TRANSFER DRAG CONVEYOR NO. 4 TO ROTOR SCREEN BAGASSE SEPERATOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	168,000 TPY	0.038	0.018
ROTOR SCREEN BAGASSE SEPERATOR TO RETURN BAGASSE BELT CONVEYOR NO. 8	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	168,000 TPY	0.038	0.018
ROTOR SCREEN BAGASSE SEPERATOR TO SCREW CONVEYOR/BOILER HOUSE	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	84,000 TPY	0.019	0.009
BAGASSE BELT CONVEYOR NO. 8 TO NO. 2 BAGASSE DRAG CONVEYOR	CONTINUOUS DROP	4.8	12.4	0.00226	0.00107	ENCLOSURE	80	0.00045	0.00021	84,000 TPY	0.019	0.009
BAGACILLO CYCLONE	POINT SOURCE	--	--	--	--	--	99.999	--	--	84,000 TPY	0.840	0.840
TOTAL											2.190	1.459

Notes/References

(a) Based on the upper value of the range presented in AP-42 that is applicable for this equation.

(b) Based on meteorological data from Palm Beach International Airport, 1987-1991. Only data for crop season months were used.

(c) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (USEPA, 1995) Section 13.2.4:
E= k x 0.0032 x (U/5)^1.3 / (M/2)^1.4 lb/ton, where k = 0.74 for PM and 0.35 for PM_{10}.

(d) Based on produced bagasse for the 2000/2001 crop season (927,072 tons) and bagasse consumed in the 2000/2001 crop season (812,593 tons).

(e) 60% of the total produced bagasse during the 2000/2001 crop season is from Tandem A and 40% is from Tandem B.

Table G-3. U.S. Sugar Clewiston Bagasse Handling System Actual 2000-2001 Off-Crop Season Fugitive Dust Emissions

SOURCE	TYPE OF OPERATION	M MOISTURE CONTENT (a) (%)	U WIND SPEED (b) (MPH)	UNCONTROLLED PM EMISSION FACTOR (c) (LB/TON)	UNCONTROLLED PM_{10} EMISSION FACTOR (c) (LB/TON)	CONTROL	CONTROL EFFICIENCY (%)	CONTROLLED PM EMISSION FACTOR (LB/TON)	CONTROLLED PM_{10} EMISSION FACTOR (LB/TON)	ACTIVITY FACTOR (d)	ESTIMATED ACTUAL ANNUAL PM EMISSIONS (TONS/YR)	ESTIMATED ACTUAL ANNUAL PM_{10} EMISSIONS (TONS/YR)
BAGASSE HANDLING												
MILL NOS. 6B/7B to NO. 1-A BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	0 TPY	0.000	0.000
MILL NOS. 4B/5B to NO. 1-B BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	0 TPY	0.000	0.000
NO. 1-A BAGASSE BELT CONVEYOR TO NO. 2 BAGASSE DRAG CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	0 TPY	0.000	0.000
NO. 1-B BAGASSE BELT CONVEYOR TO NO. 2 BAGASSE DRAG CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	0 TPY	0.000	0.000
NO. 1-B BAGASSE BELT CONVEYOR TO NO. 2 BACK FEED BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	0 TPY	0.000	0.000
NO. 2 BAGASSE DRAG CONVEYOR TO TRANSFER BELT CONVEYOR NO. 6	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	2,250 TPY	0.000	0.000
NO. 2 BAGASSE DRAG CONVEYOR TO BELT CONVEYOR NO. 3	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	69,011 TPY	0.012	0.006
NO. 2 BACK FEED BAGASSE BELT CONVEYOR TO BELT CONVEYOR NO. 3	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	0 TPY	0.000	0.000
BELT CONVEYOR NO. 3 TO BELT CONVEYOR NO. 4	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	69,011 TPY	0.012	0.006
BELT CONVEYOR NO. 4 TO DRAG CONVEYOR NO. 3	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	69,011 TPY	0.012	0.006
DRAG CONVEYOR NO. 3 TO TRANSFER BELT CONVEYOR NO. 5	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	1,500 TPY	0.000	0.000
TRANSFER BELT CONVEYOR NO. 5 TO LEVELING CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	NONE	0	0.00178	0.00084	1,500 TPY	0.001	0.001
TRANSFER BELT CONVEYOR NO. 6 TO LEVELING CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	NONE	0	0.00178	0.00084	2,250 TPY	0.002	0.001
BAGASSE STORAGE BIN	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	NONE	0	0.00178	0.00084	3,750 TPY	0.003	0.002
BAGASSE STORAGE BIN TO BOTTOM DRAG CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	3,750 TPY	0.001	0.000
BOTTOM DRAG CONVEYOR TO ELEVATOR BAGASSE CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	3,750 TPY	0.001	0.000
ELEVATOR BAGASSE CONVEYOR TO TRANSFER BELT CONVEYOR NO. 7	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	3,750 TPY	0.001	0.000
TRANSFER BELT CONVEYOR NO. 7 TO NO. 2 BACK FEED BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	3,750 TPY	0.001	0.000
DRAG CONVEYOR NO. 3 TO REVERSIBLE OUTSIDE BAGASSE BELT CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	1,500 TPY	0.000	0.000
REVERSIBLE OUTSIDE BAGASSE BELT CONVEYOR TO OUTSIDE STORAGE BAGASSE	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	NONE	0	0.00178	0.00084	9,000 TPY	0.008	0.004
FRONT-END LOADER TO NORTH/SOUTH BAGASSE PILE ELEVATOR	BATCH DROP	4.8	10.3	0.00178	0.00084	NONE	0	0.00178	0.00084	157,528 TPY	0.140	0.066
NORTH/SOUTH BAGASSE PILE ELEVATOR TO REVERSIBLE OUTSIDE BAGASSE BELT CO	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	NONE	0	0.00178	0.00084	157,528 TPY	0.140	0.066
REVERSIBLE BAGASSE BELT CONVEYOR TO RETURN BAGASSE BELT CONVEYOR NO.	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	159,028 TPY	0.028	0.013
RETURN BAGASSE BELT CONVEYOR NO. 9 TO NO. 2 BACK FEED BAGASSE BELT CONVI	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	94,517 TPY	0.017	0.008
RETURN BAGASSE BELT CONVEYOR NO. 9 TO NO. 2 BAGASSE DRAG CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	80	0.00036	0.00017	94,517 TPY	0.017	0.008
BAGACILLO SYSTEM												
NO. 2 BAGASSE DRAG CONVEYOR TO TRANSFER DRAG CONVEYOR NO. 4	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	90	0.00018	0.00008	2,836 TPY	0.000	0.000
TRANSFER DRAG CONVEYOR NO. 4 TO ROTOR SCREEN BAGASSE SEPERATOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	90	0.00018	0.00008	2,836 TPY	0.000	0.000
ROTOR SCREEN BAGASSE SEPERATOR TO RETURN BAGASSE BELT CONVEYOR NO. 8	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	90	0.00018	0.00008	2,750 TPY	0.000	0.000
ROTOR SCREEN BAGASSE SEPERATOR TO SCREW CONVEYOR/BOILER HOUSE	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	90	0.00018	0.00008	86 TPY	0.000	0.000
BAGASSE BELT CONVEYOR NO. 8 TO NO. 2 BAGASSE DRAG CONVEYOR	CONTINUOUS DROP	4.8	10.3	0.00178	0.00084	ENCLOSURE	90	0.00018	0.00008	2,750 TPY	0.000	0.000
BAGACILLO CYCLONE	POINT SOURCE	--	--	--	--	--	99.999	--	--	86 TPY	0.001	0.001
TOTAL											0.399	0.189

Notes/References

(a) Based on the upper value of the range presented in AP-42 that is applicable for this equation.

(b) Based on meteorological data from Palm Beach International Airport, 1987-1991. Only data for off-crop season months were used.

(c) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (USEPA, 1995) Section 13.2.4:
E= k x 0.0032 x (U/5)^1.3 / (M/2)^1.4 lb/ton, where k = 0.74 for PM and 0.35 for PM_{10}.

(d) Based on produced bagasse for the 2000/2001 off-crop season.

Table G-4. Future Maximum Bagasse Usage in Boilers, U. S. Sugar Clewiston

Boiler No.	Maximum Heat Input Rate [a] (MMBtu/hr)	Crop Season: Maximum Steam Production [a]	Crop Season: Maximum Bagasse Usage TPH [b]	Crop Season: Maximum Bagasse Usage tons/season [c]	Off-Crop Season: Maximum Steam Production [d]	Off-Crop Season: Maximum Bagasse TPH [b]	Off-Crop Season: Maximum Bagasse tons/season [c]	Maximum Bagasse Usage (TPY)
1	495	255,000 lb/hr	68.75	349,800	840,000 lb/day [e]	9.44	34,650	349,800
2	447	230,000 lb/hr	62.08	315,880	3,120,000 lb/day [e]	35.09	128,853	444,733
4	601	6,840,000 lb/day	83.47	424,707	6,840,000 lb/day [e]	83.47	306,510	731,217
7	738	8,400,000 lb/day	102.50	521,520	8,400,000 lb/day [e]	102.50	0	521,520
8	936	500,000 lb/hr	130.00	661,440	300,000 lb/hr	78.00	286,416	947,856
TOTAL			446.81	2,273,347			756,429	2,995,125

Footnotes:

[a] Based on puroposed 24-hr maximum for Boiler No. 8 and the allowables in Construction Permit No. 0510003-010-AC for the remaining boilers. The 24-hr average limit is shown, where applicable.

[b] Based on heat inputs rates and steam production and assuming 3,600 Btu/lb for bagasse (wet).

[c] Based on 212 days during the crop season and 153 days during the off-crop season.

[d] Based on the maximum allowable steam production rates for the off-crop season as presented in Construction Permit No. 0510003-010-AC.
Total from Boiler Nos. 1-4: 10,800,000 lb/24 hr
Boiler No. 7: 8,400,000 lb/24 hr

[e] During the off-crop season, Boiler Nos. 1, 2 and 4 may act as backup units to the primary unit, Boiler No. 7. Operating Boiler Nos. 1, 2, and 4 simultaneously will use more bagasse than operating Boiler No. 7 alone, and so this scenario was used to determine maximum bagasse usage during the off-crop season. The total maximum allowable steam production for Boiler Nos. 1, 2 and 4 is limited to 10,800,000 pounds per day during the off-crop season.

Boiler No. 1: 1,941.2 Btu/lb steam
Boiler No. 2: 1,943.5 Btu/lb steam
Boiler No. 4: 2,110.0 Btu/lb steam
Boiler No. 8: 1,161 Btu/lb steam
Boiler No. 7: 2,109.1 Btu/lb steam

Table G-5. Current, Future, and Increase in Fugitive Dust Emissions from Bagasse Handling System, U. S. Sugar Clewiston

Pollutant	Future Annual Emissions (TPY)			Current Annual Emissions (TPY)			Net Increase in Emissions (TPY)		
	Crop Season	Off-Crop Season	Total	Crop Season	Off-Crop Season	Total	Crop Season	Off-Crop Season	Total
BAGASSE HANDLING SYSTEM									
PM	8.991	3.937	12.928	2.190	0.399	2.589	6.801	3.539	10.339
PM_{10}	8.243	3.824	12.067	1.459	0.189	1.648	6.784	3.635	10.419

Table G-6. U.S. Sugar Clewiston Bagasse Handling System- Model Input Parametersfor Crop and Off-Crop Season Fugitive Dust Emissions for Existing Operations

Source	Source Type	Actual PM_{10} Emissions: Crop Season (tons/yr)	Crop Season (lb/hr)	Crop Season (g/s)	Off-Crop Season (tons/yr)	Off-Crop Season (lb/hr)	Off-Crop Season (g/s)
BAGASSE HANDLING							
MILL NOS. 6B/7B to NO. 1-A BAGASSE BELT CONVEYOR	Volume	0.059	0.023	0.0029	0.000	0.000	0.0000
MILL NOS. 4B/5B to NO. 1-B BAGASSE BELT CONVEYOR	Volume	0.040	0.016	0.0020	0.000	0.000	0.0000
NO. 1-A BAGASSE BELT CONVEYOR TO NO. 2 BAGASSE DRAG CONVEYOR	Volume	0.059	0.023	0.0029	0.000	0.000	0.0000
NO. 1-B BAGASSE BELT CONVEYOR TO NO. 2 BAGASSE DRAG CONVEYOR	Volume	0.000	0.000	0.0000	0.000	0.000	0.0000
NO. 1-B BAGASSE BELT CONVEYOR TO NO. 2 BACK FEED BAGASSE BELT CONVEYOR	Volume	0.020	0.008	0.0010	0.000	0.000	0.0000
NO. 2 BAGASSE DRAG CONVEYOR TO TRANSFER BELT CONVEYOR NO. 6	Volume	0.002	0.001	0.0001	0.000	0.000	0.0000
NO. 2 BAGASSE DRAG CONVEYOR TO BELT CONVEYOR NO. 3	Volume	0.052	0.020	0.0026	0.006	0.003	0.0004
NO. 2 BACK FEED BAGASSE BELT CONVEYOR TO BELT CONVEYOR NO. 3	Volume	0.000	0.000	0.0000	0.000	0.000	0.0000
BELT CONVEYOR NO. 3 TO BELT CONVEYOR NO. 4	Volume	0.052	0.020	0.0026	0.006	0.003	0.0004
BELT CONVEYOR NO. 4 TO DRAG CONVEYOR NO. 3	Volume	0.052	0.020	0.0026	0.006	0.003	0.0004
DRAG CONVEYOR NO. 3 TO TRANSFER BELT CONVEYOR NO. 5	Volume	0.001	0.001	0.0001	0.000	0.000	0.0000
TRANSFER BELT CONVEYOR NO. 5 TO LEVELING CONVEYOR	Volume	0.007	0.003	0.0004	0.001	0.000	0.0000
TRANSFER BELT CONVEYOR NO. 6 TO LEVELING CONVEYOR	Volume	0.010	0.004	0.0005	0.001	0.001	0.0001
BAGASSE STORAGE BIN	Volume	0.017	0.007	0.0008	0.002	0.001	0.0001
BAGASSE STORAGE BIN TO BOTTOM DRAG CONVEYOR	Volume	0.003	0.001	0.0002	0.000	0.000	0.0000
BOTTOM DRAG CONVEYOR TO ELEVATOR BAGASSE CONVEYOR	Volume	0.003	0.001	0.0002	0.000	0.000	0.0000
ELEVATOR BAGASSE CONVEYOR TO TRANSFER BELT CONVEYOR NO. 7	Volume	0.003	0.001	0.0002	0.000	0.000	0.0000
TRANSFER BELT CONVEYOR NO. 7 TO NO. 2 BACK FEED BAGASSE BELT CONVEYOR	Volume	0.003	0.001	0.0002	0.000	0.000	0.0000
DRAG CONVEYOR NO. 3 TO REVERSIBLE OUTSIDE BAGASSE BELT CONVEYOR	Volume	0.017	0.007	0.0009	0.000	0.000	0.0000
REVERSIBLE OUTSIDE BAGASSE BELT CONVEYOR TO OUTSIDE STORAGE BAGASSE	Area	0.086	0.034	0.0043	0.004	0.002	0.0003
FRONT-END LOADER TO NORTH/SOUTH BAGASSE PILE ELEVATOR	Area	0.025	0.010	0.0012	0.066	0.036	0.0045
NORTH/SOUTH BAGASSE PILE ELEVATOR TO REVERSIBLE OUTSIDE BAGASSE BELT CONVEYOR	Area	0.025	0.010	0.0012	0.066	0.036	0.0045
REVERSIBLE OUTSIDE BAGASSE BELT CONVEYOR TO RETURN BAGASSE BELT CONVEYOR NO. 9	Area	0.005	0.002	0.0002	0.013	0.007	0.0009
RETURN BAGASSE BELT CONVEYOR NO. 9 TO NO. 2 BACK FEED BAGASSE BELT CONVEYOR	Volume	0.000	0.000	0.0000	0.008	0.004	0.0005
RETURN BAGASSE BELT CONVEYOR NO. 9 TO NO. 2 BAGASSE DRAG CONVEYOR	Volume	0.005	0.002	0.0002	0.008	0.004	0.0005
BAGACILLO SYSTEM							
NO. 2 BAGASSE DRAG CONVEYOR TO TRANSFER DRAG CONVEYOR NO. 4	Volume	0.018	0.007	0.0009	0.000	0.000	0.0000
TRANSFER DRAG CONVEYOR NO. 4 TO ROTOR SCREEN BAGASSE SEPERATOR	Volume	0.018	0.007	0.0009	0.000	0.000	0.0000
ROTOR SCREEN BAGASSE SEPERATOR TO RETURN BAGASSE BELT CONVEYOR NO. 8	Volume	0.018	0.007	0.0009	0.000	0.000	0.0000
ROTOR SCREEN BAGASSE SEPERATOR TO SCREW CONVEYOR/BOILER HOUSE	Volume	0.009	0.004	0.0004	0.000	0.000	0.0000
BAGASSE BELT CONVEYOR NO. 8 TO NO. 2 BAGASSE DRAG CONVEYOR	Volume	0.009	0.004	0.0004	0.000	0.000	0.0000
BAGACILLO CYCLONE	Volume	0.840	0.330	0.0416	0.001	0.000	0.0001
	Total	1,459	0.573	0.072	0.189	0.103	0.013
	Volume	1.319	0.518	0.0653	0.039	0.021	0.0027
	Area	0.140	0.055	0.00695	0.1495	0.0814	0.0103
	Hours	5088			3672		

MODEL PARAMETERS Source	Type	Height (ft)	Height (m)	Length (ft)	Length (m)	Width (ft)	Width (m)	Relative Coordinates X (ft)	X (m)	Y (ft)	Y (m)	Release Height (ft)	Release Height (m)	Initial Dispersion (m) Sigma Y	Sigma Z		Emissions (g/s)
Crop Season																	
CONVEYORS1	Volume	88	26.8293	120	36.6	120	36.6	-220	-67.1	-85.0	-25.9	88	26.8	17.0	12.5		0.0163
CONVEYORS2	Volume	88	26.8293	120	36.6	120	36.6	-100	-30.5	-85.0	-25.9	88	26.8	17.0	12.5		0.0163
CONVEYORS3	Volume	88	26.8293	120	36.6	120	36.6	20	6.1	-85.0	-25.9	88	26.8	17.0	12.5		0.0163
CONVEYORS4	Volume	88	26.8293	120	36.6	120	36.6	140	42.7	-85.0	-25.9	88	26.8	17.0	12.5		0.0163
																Total	0.0653
Off-Crop Season																	
CONVEYORS1	Volume	88	26.8293	120	36.6	120	36.6	-220	-67.1	-85.0	-25.9	88	26.8	17.0	12.5		0.0007
CONVEYORS2	Volume	88	26.8293	120	36.6	120	36.6	-100	-30.5	-85.0	-25.9	88	26.8	17.0	12.5		0.0007
CONVEYORS3	Volume	88	26.8293	120	36.6	120	36.6	20	6.1	-85.0	-25.9	88	26.8	17.0	12.5		0.0007
CONVEYORS4	Volume	88	26.8293	120	36.6	120	36.6	140	42.7	-85.0	-25.9	88	26.8	17.0	12.5		0.0007
																Total	0.0027
Crop Season																	
STORAGE AREA	Area	16	5	200	61.0	200	61.0	-260	-79.3	325.0	99.1	16	5	0.0	0.0		0.00695
																g/(m2-s)	0.00000187
Off-Crop Season																	
STORAGE AREA	Area	16	5	200	61.0	200	61.0	-260	-79.3	325.0	99.1	16	5	0.0	0.0		0.0103
																g/(m2-s)	0.00000276

Table G-7. U.S. Sugar Clewiston Bagasse Handling System- Model Input Parametersfor Crop and Off-Crop Season Fugitive Dust Emissions for Future Operations

Source	Source Type	Potential PM_{10} Emissions: Crop Season (tons/yr)	Crop Season (lb/hr)	Crop Season (g/s)	Off-Crop Season (tons/yr)	Off-Crop Season (lb/hr)	Off-Crop Season (g/s)
BAGASSE HANDLING							
MILL NOS. 6B/7B to NO. 1-A BAGASSE BELT CONVEYOR	Volume	0.076	0.030	0.0038	0.000	0.000	0.0000
MILL NOS. 4B/5B to NO. 1-B BAGASSE BELT CONVEYOR	Volume	0.051	0.020	0.0025	0.000	0.000	0.0000
TANDEM A TO CONVEYOR C1	Volume	1.548	0.609	0.0767	0.000	0.000	0.0000
TANDEM B TO CONVEYOR C1	Volume	1.352	0.531	0.0670	0.000	0.000	0.0000
UPPER LEVEL CONVEYOR C1 TO LOWER LEVEL CONVEYOR C1	Volume	0.127	0.050	0.0063	0.007	0.004	0.0005
CONVEYOR C1 TO CONVEYOR C4	Volume	0.035	0.014	0.0017	0.000	0.000	0.0000
CONVEYOR C1 TO CONVEYOR C2	Volume	0.051	0.020	0.0025	0.000	0.000	0.0000
CONVEYOR C2 TO CONVEYOR C3	Volume	1.548	0.609	0.0767	1.117	0.609	0.0767
CONVEYOR C3 TO DRAG CONVEYOR #3	Volume	0.028	0.011	0.0014	0.000	0.000	0.0000
UPPER LEVEL DRAG CONV. NO. 3 TO LOWER LEVEL DRAG CONV. NO. 3	Volume	0.028	0.011	0.0014	0.000	0.000	0.0000
DRAG CONVEYOR NO. 3 TO BAGASSE BELT FEEDING OUTSIDE STORAGE	Volume	0.012	0.005	0.0006	0.003	0.002	0.0002
CONVEYOR C4 TO NEW CONVEYOR FEEDING BOILER 8	Volume	1.548	0.609	0.0767	1.117	0.609	0.0767
FRONT-END LOADER TO RECLAIM A/B	Area	0.121	0.048	0.0060	0.032	0.017	0.0022
RECLAIM A/B TO TRANSFER BELT CONVEYOR	Area	0.121	0.048	0.0060	0.032	0.017	0.0022
TRANSFER BELT TO RETURN OUTSIDE BAGASSE BELT CONVEYOR	Area	0.012	0.005	0.0006	0.003	0.002	0.0002
RETURN OUTSIDE BAGASSE BELT CONVEYOR TO CONVEYOR C1	Volume	0.515	0.203	0.0255	1.487	0.810	0.1021
RETURN OUTSIDE BAGASSE BELT CONVEYOR TO CONVEYOR C2	Volume	0.006	0.002	0.0003	0.013	0.007	0.0009
RETURN OUTSIDE BAGASSE BELT CONVEYOR TO CONVEYOR C4	Volume	0.003	0.001	0.0002	0.012	0.007	0.0008
BAGACILLO SYSTEM							
BAGACILLO CYCLONE	Volume	1.060	0.417	0.0525	0.000	0.000	0.0000
	Total	8.243	3.240	0.408	3.824	2.083	0.262
	Volume	7.988	3.140	0.396	3.757	2.046	0.258
	Area	0.255	0.100	0.013	0.067	0.036	0.005
	Hours	5088			3672		

Source	Type	Height (ft)	Height (m)	Length (ft)	Length (m)	Width (ft)	Width (m)	Relative Coordinates X (ft)	X (m)	Y (ft)	Y (m)	Release Height (ft)	Release Height (m)	Initial Dispersion (m) Sigma Y	Sigma Z	Emissions (g/s)
MODEL PARAMETERS																
Crop Season																
CONVEYORS1	Volume	88	26.8293	120	36.6	120	36.6	-220	-67.1	-85.0	-25.9	88	26.8	17.0	12.5	0.099
CONVEYORS2	Volume	88	26.8293	120	36.6	120	36.6	-100	-30.5	-85.0	-25.9	88	26.8	17.0	12.5	0.099
CONVEYORS3	Volume	88	26.8293	120	36.6	120	36.6	20	6.1	-85.0	-25.9	88	26.8	17.0	12.5	0.099
CONVEYORS4	Volume	88	26.8293	120	36.6	120	36.6	140	42.7	-85.0	-25.9	88	26.8	17.0	12.5	0.099
															Total	0.396
Off-Crop Season																
CONVEYORS1	Volume	88	26.8293	120	36.6	120	36.6	-220	-67.1	-85.0	-25.9	88	26.8	17.0	12.5	0.0645
CONVEYORS2	Volume	88	26.8293	120	36.6	120	36.6	-100	-30.5	-85.0	-25.9	88	26.8	17.0	12.5	0.0645
CONVEYORS3	Volume	88	26.8293	120	36.6	120	36.6	20	6.1	-85.0	-25.9	88	26.8	17.0	12.5	0.0645
CONVEYORS4	Volume	88	26.8293	120	36.6	120	36.6	140	42.7	-85.0	-25.9	88	26.8	17.0	12.5	0.0645
															Total	0.258
Crop Season																
STORAGE AREA	Area	16	5	200	61.0	200	61.0	-260	-79.3	325.0	99.1	16	5	0.0	0.0	0.01262
															g/(m2-s)	0.00000339
Off-Crop Season																
STORAGE AREA	Area	16	5	200	61.0	200	61.0	-260	-79.3	325.0	99.1	16	5	0.0	0.0	0.0046
															g/(m2-s)	0.00000123

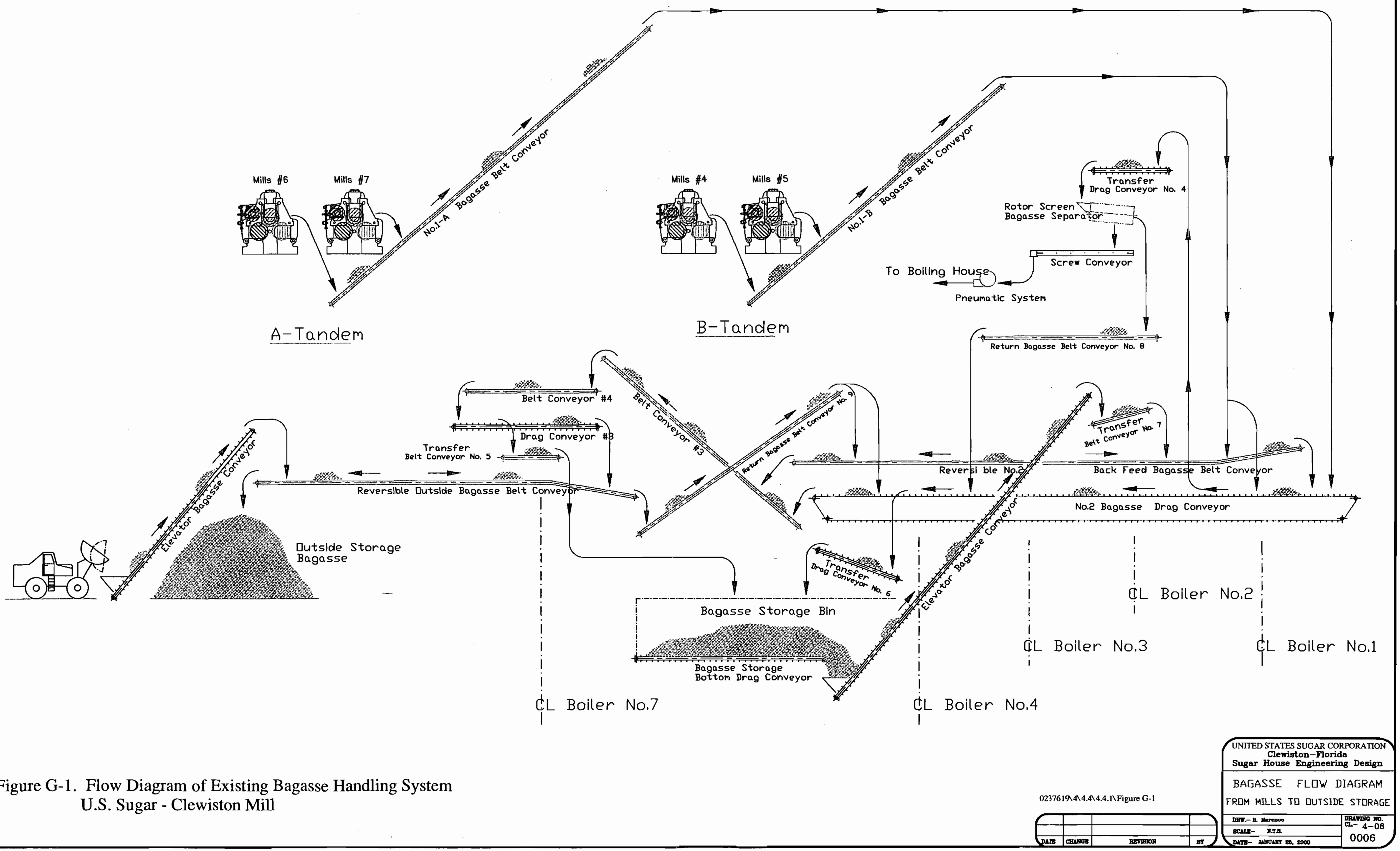

Figure G-1. Flow Diagram of Existing Bagasse Handling System
U.S. Sugar - Clewiston Mill

APPENDIX H

ALTERNATIVE OPACITY MONITORING PLAN

ALTERNATIVE OPACITY MONITORING PLAN
FOR BOILER NO. 8
U. S. SUGAR CLEWISTON

U. S. Sugar proposes the following alternative opacity monitoring plan for Boiler No. 8. This plan is structured after a similar plan for Boiler No. 7 at the Clewiston mill, which is also subject to the opacity standards under 40 CFR 60, Subpart Db. The plan is presented in terms of proposed permit conditions for Boiler No. 8.

Visible Emissions - In lieu of continuous opacity monitoring, the permittee may use the following procedure in order to determine the opacity of emissions when Boiler No. 8 burns No. 2 fuel oil:

1. An individual who is trained in the use of EPA Reference Method 9 and is currently certified as a visible emissions observer by the State of Florida shall perform a twelve-minute opacity test once per daylight shift during the period that the highest oil firing rate occurs;
2. An individual who is trained in the use of EPA Reference Method 9 and is currently certified as a visible emissions observer by the State of Florida shall perform a twelve-minute opacity test when the boiler achieves the normal operational load after a cold boiler startup with No. 2 fuel oil;
3. Observations required pursuant to 1. and 2. shall be made in accordance with the provisions of EPA Reference Method 9;
4. The observer shall maintain a log, which includes all of the information required by EPA Reference Method 9 for each set of observations and the quantity of No. 2 fuel oil being burned at the time of the observations;
5. A copy of the observation log shall be submitted to the South District Office of the Department once per calendar quarter if distillate oil was fired during that quarter. Information regarding fuel usage and fuel analysis shall also be submitted to the South district Office on a quarterly basis to verify that the 10 percent annual capacity factor (ACF) limit is not exceeded;
6. The permittee shall follow the boiler manufacturer's maintenance schedule and procedures to assure that serviceable components are well maintained, and;
7. Permittee shall install and operate a continuous opacity monitor if either the ACF limit of 10 percent for combustion of No. 2 fuel oil is exceeded, or the applicable visible emission limiting standard in 40 CFR 60.43(f) is not regularly complied with when Boiler No. 8 is operated on No. 2 fuel oil.

APPENDIX J

CALPUFF MODEL DESCRIPTION AND METHODOLOGY

J.0 CALPUFF MODEL DESCRIPTION AND METHODOLOGY

J.1 INTRODUCTION

As part of the new source review requirements under Prevention of Significant Deterioration (PSD) regulations, new major sources or major modifications to those sources are required to address air quality impacts at PSD Class I areas. As part of the PSD analysis report submitted to the Florida Department of Environmental Protection (DEP), the air quality impacts due to the potential emissions of the proposed Project at the U.S. Sugar Clewiston Mill are required to be addressed at the PSD Class I area of the Everglades National Park (NP). The Everglades NP is located approximately 102 km south of the facility site and is the only PSD Class I area within 200 km of the facility.

The evaluation of air quality impacts are not only concerned with determining compliance with PSD Class I increments but also assessing a source's impact on Air Quality Related Values (AQRVs), such as regional haze. Further, compliance with PSD Class I increments can be evaluated by determining if the source's impacts are less than the proposed U.S. Environmental Protection Agency (EPA) Class I significant impact levels. The significant impact levels are threshold levels that are used to determine the type of air impact analyses needed for the facility. If the new or modified source's impacts are predicted to be less than significant, then the source's impacts are assumed not to have a significant adverse affect on air quality and additional modeling with other sources is not required. However, if the source's impacts are predicted to be greater than the significant impact levels, additional modeling with other sources is required to demonstrate compliance with Class I increments.

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 Federal Land Managers (FLM) of Class I areas who are responsible for ensuring that AQRVs are not adversely impacted by new and existing sources. These recommendations have been summarized 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.
- *Federal Land Managers' Air Quality Related Values Workgroup (FLAG), Phase I Report,* USFS, NPS, USFWS (12/00), referred to as the FLAG document.

For the proposed project, air quality analyses were performed that assess the Project's impacts in the PSD Class I area of the Everglades NP using the refined modeling approach from the IWAQM Phase 2 report for:

- Significant impact analysis
- SO_2 PSD Class I increment analysis; and
- Regional haze analysis

The refined analysis approach was used instead of the screening analysis approach since the air quality impacts are based on generally more realistic assumptions, include more detailed meteorological data, and are estimated at locations at the Class I area.

J.2 GENERAL AIR MODELING APPROACH

The general modeling approach was based on using the long-range transport model, California Puff model (CALPUFF, Version 5.4). At distances beyond 50 km, the ISCST3 (ISC-PRIME) model is considered to over-predict air quality impacts, because it is a steady-state model. At those distances, the CALPUFF model is recommended for use. Recently, the FLM have requested that air quality impacts, such as for regional haze, for a source located more than 50 km from a Class I area be predicted using the CALPUFF model. The Florida DEP has also recommended that the CALPUFF model be used to assess if the source has a significant impact at a Class I area located beyond 50 km from the source. As a result, a significant impact and regional haze analyses were performed using the CALPUFF model to assess the facility's impacts at the Everglades NP.

The methods and assumptions used in the CALPUFF model were based on the latest recommendations for a refined analysis as presented in the IWAQM Phase 2 Summary Report and the FLAG documents.

A regional haze analysis was performed to determine the affect that the facility's emissions will have on background regional haze levels at the Everglades NP. In the regional haze analysis, the change in visual range, as calculated by a deciview change, was estimated for the facility in accordance with the IWAQM recommendations. Based on those recommendations, the CALPUFF model is used to predict the maximum 24-hour average sulfate (SO_4), nitrate (NO_3), and fine particulate (PM_{10}) concentrations as well as ammonium sulfate [$(NH_4)_2SO_4$] and ammonium nitrate (NH_4NO_3) concentrations. The change in visibility due to a source, estimated as a percentage, is then calculated based on the change from background data.

The following sections present the methods and assumptions used to assess the refined significant impact and regional haze analyses performed for the Proposed Project. The results of these analyses are presented in Sections 6.0 and 7.0 of the PSD report.

J.3 MODEL SELECTION AND SETTINGS

The California Puff (CALPUFF, version 5.4) air modeling system was used to model to assess the Proposed Project's impacts at the PSD Class I area for comparison to the PSD Class I significant impact levels and to the regional haze visibility criteria. CALPUFF is a non-steady state Lagrangian Gaussian puff long-range transport model that includes algorithms for building downwash effects as well as chemical transformations (important for visibility controlling pollutants), and wet/dry deposition. The CALPUFF meteorological and geophysical data preprocessor (CALMET, Version 5.2), a preprocessor to CALPUFF, is a diagnostic meteorological model that produces a three-dimensional field of wind and temperature and a two-dimensional field of other meteorological parameters. CALMET was designed to process raw meteorological, terrain and land-use databases to be used in the air modeling analysis. The CALPUFF modeling system uses a number of FORTRAN preprocessor programs that extract data from large databases and converts the data into formats suitable for input to CALMET. The processed data produced from CALMET was input to CALPUFF to assess the pollutant specific impact. Both CALMET and CALPUFF were used in a manner that is recommended by the IWAQM Phase 2 and FLAG reports.

J.3.1 CALPUFF MODEL APPROACHES AND SETTINGS

The IWAQM has recommended approaches for performing a Phase 2 refined modeling analyses that are presented in Table J-1. These approaches involve use of meteorological data, selection of receptors and dispersion conditions, and processing of model output.

The specific settings used in the CALPUFF model are presented in Table J-2.

J.3.2 EMISSION INVENTORY AND BUILDING WAKE EFFECTS

The CALPUFF model included the facility's emission, stack, and operating data as well as building dimensions to account for the effects of building-induced downwash on the emission sources. Dimensions for all significant building structures were processed with the Building Profile Input Program (BPIP), Version 95086, and were included in the CALPUFF model input. The PSD Analysis Report presents a listing of the facility's emissions and structures included in the analysis.

J.4 RECEPTOR LOCATIONS

For the refined analyses, pollutant concentrations were predicted in an array of 126 discrete receptors located at the Everglades NP area. These receptors are the same as those used in the PSD Class I analysis performed for the PSD Analysis Report.

J.5 METEOROLOGICAL DATA

J.5.1 REFINED ANALYSIS

CALMET was used to develop the gridded parameter fields required for the refined modeling analyses. The follow sections discuss the specific data used and processed in the CALMET model.

J.5.2 CALMET SETTINGS

The CALMET settings contained in Table J-3 were used for the refined modeling analysis. With the exception of hourly precipitation data files, all input data files needed for CALMET were developed by the FDEP staff.

J.5.3 MODELING DOMAIN

A rectangular modeling domain extending 450 km in the east-west (x) direction and 470 km in the north-south (y) direction was used for the refined modeling analysis. The southwest corner of the domain is the origin and is located at 23.8 degrees north latitude and 83.5 degrees west longitude. This location is in the Gulf of Mexico approximately 110 km west of Venice, Florida. For the processing of meteorological and geophysical data, the domain contains 90 grid cells in the x-direction and 94 grid cells in the y-direction. The domain grid resolution is 4 km. The air modeling analysis was performed in the UTM coordinate system.

J.5.4 MESOSCALE MODEL – GENERATION 4 AND 5 (MM4/MM5) DATA

Pennsylvania State University in conjunction with the NCAR Assessment Laboratory developed the MM4 and MM5 datasets, prognostic wind fields or "guess" fields, for the United States. The hourly meteorological variables used to create these datasets (wind, temperature, dew point depression, and geopotential height for eight standard levels and up to 15 significant levels) are extensive and have been developed for the MM4 data for 1990 and the MM5 data for 1992 and 1996. The analysis used the MM4 and MM5 data to initialize the CALMET wind field. The 1990 MM4 and 1992 MM5 data have horizontal spacing of 80 km while the 1996 MM6 data has a spacing of 36 km. These data are used to simulate atmospheric variables within the modeling domain.

The MM4 subset domain was provided by FDEP and consisted of a 7 x 7- cell rectangle, with 80 km grid resolution, extending from the MM4 grid points (50,6) to (57,13). These data were processed to create a MM4.DAT file, for input to the CALMET model. The MM5 subset domain was provided by the National Park Service and was processed in a similar manner as the MM4 data.

The MM4 and MM5 data set used in the CALMET, although advanced, lacks the fine detail of specific temporal and spatial meteorological variables and geophysical data. These variables were processed into the appropriate format and introduced into the CALMET model through the additional data files obtained from the following sources.

J.5.5 SURFACE DATA STATIONS AND PROCESSING

The surface station data processed for the CALPUFF analyses consisted of data from eight NWS stations or Federal Aviation Administration (FAA) Flight Service stations for Orlando, Fort Myers, Daytona Beach, Vero Beach, Key West, Miami, Tampa, and West Palm Beach. A summary of the surface station information and locations are presented in Table J-4. The surface station parameters include wind speed, wind direction, cloud ceiling height, opaque cloud cover, dry bulb temperature, relative humidity, station pressure, and a precipitation code that is based on current weather conditions. The surface station data were processed by FDEP into a SURF.DAT file format for CALMET input.

Because the modeling domain extends largely over water, C-Man station data from Venice, Sombrero Key, and Lake Worth was obtained. These data were processed by Florida DEP into an over-water surface station format (i.e., SEA*.DAT) for input to CALMET. The over-water station data include wind direction, wind speed and air temperature.

J.5.6 UPPER AIR DATA STATIONS AND PROCESSING

The analysis included three upper air NWS stations located in Ruskin, Key West, and West Palm Beach. Data for each station were obtained from the Florida DEP in a format for CALMET input. The data and locations for the upper air stations are presented in Table J-4.

J.5.7 PRECIPITATION DATA STATIONS AND PROCESSING

Precipitation data were processed from a network of hourly precipitation data files collected from primary and secondary NWS precipitation-recording stations located within the latitude and longitudinal limits of the modeling domain. Data for 23 stations were obtained in NCDC TD-3240 variable format and converted into a fixed-length format. The utility programs PXTRACT and PMERGE were then used to process the data into the format for the PRECIP.DAT file that is used by CALMET. A listing of the precipitation stations used for the modeling analysis is presented in Table J-5.

J.5.8 GEOPHYSICAL DATA PROCESSING

Terrain elevations for each grid cell of the modeling domain were obtained from 1-degree Digital Elevation Model (DEM) files obtained from the U.S. Geographical Survey (USGS) internet website. The DEM data was extracted for the modeling domain grid using the utility program TERREL. Land-use data were also extracted from 1-degree USGS files and processed using utility programs CTGCOMP and CTGPROC. Both the terrain and land use files were combined into a GEO.DAT file for input to CALMET with the MAKEGEO utility program.

Table J-1. Refined Modeling Analyses Recommendations [a]

Model Input/Output	Description
Meteorology	Use CALMET (minimum 6 to 10 layers in the vertical; top layer must extend above the maximum mixing depth expected); horizontal domain extends 50 to 80 km beyond outer receptors and sources being modeled; terrain elevation and land-use data is resolved for the situation.
Receptors	Within Class I area(s) of concern; obtain regulatory concurrence on coverage.
Dispersion	1. CALPUFF with default dispersion settings. 2. Use MESOPUFF II chemistry with wet and dry deposition. 3. Define background values for ozone and ammonia for area.
Processing	1. For PSD increments: use highest, second highest 3-hour and 24-hour average SO_2 concentrations; highest, second highest 24-hour average PM_{10} concentrations; and highest annual average SO_2, PM_{10} and NO_x concentrations. 2. For haze: process, on a 24-hour basis, compute the source extinction from the maximum increase in emissions of SO_2, NO_x and PM_{10}; compute the daily relative humidity factor [f(RH)], provided from an external disk file; and compute the maximum percent change in extinction using the FLM supplied background extinction data in the FLAG document. 3. For significant impact analysis: use highest annual and highest short-term averaging time concentrations for SO_2, PM_{10} and $NO_{x,}$

[a] IWAQM Phase II report (December, 1998) and FLAG document (December, 2000)

Table J-2. CALPUFF Model Settings

Parameter	Setting
Pollutant Species	SO_2, SO_4, NO_x, HNO_3, NO_3, PM_{10}
Chemical Transformation	MESOPUFF II scheme, hourly ozone data
Deposition	Include both dry and wet deposition, plume depletion
Meteorological/Land Use Input	CALMET
Plume Rise	Transitional, Stack-tip downwash, Partial plume penetration
Dispersion	Puff plume element, PG /MP coefficients, rural mode, ISC building downwash scheme
Terrain Effects	Partial plume path adjustment
Output	Create binary concentration file including output species for SO_4, NO_3, PM_{10}, SO_2, and NO_x; process for visibility change using Method 2 and FLAG background extinctions
Model Processing	For haze: highest predicted 24-hour extinction change (%) for the year For deposition: annual average deposition rate For significant impact analysis: highest predicted annual and highest short-term averaging time concentrations for SO_2, NO_x, and PM_{10}.
Background Values	Ozone: 80 ppb; Ammonia: 1 ppb

[a] Recommended values by the Florida DEP.

Table J-3. CALMET Settings

Parameter	Setting
Horizontal Grid Dimensions	450 by 470 km, 5 km grid resolution
Vertical Grid	9 layers
Weather Station Data Inputs	8 surface, 3 upper air, 23 precipitation stations
Wind model options	Diagnostic wind model, no kinematic effects
Prognostic wind field model	MM4 data, 80 km resolution, 7 x 7 grid, used for wind field initialization
Output	Binary hourly gridded meteorological data file for CALPUFF input

Table J-4. Surface and Upper Air Stations Used in the CALPUFF Analysis

Station Name	Station Symbol	WBAN Number	UTM Coordinates Easting (km)	Northing (km)	Zone	Anemometer Height (m)
Surface Stations						
Tampa	TPA	12842	349.20	3094.25	17	6.7
Daytona Beach	DAB	12834	495.14	3228.05	17	9.1
Orlando	ORL	12815	468.96	3146.88	17	10.1
Vero Beach	VER	12843	557.52	3058.36	17	6.7
Fort Myers	FMY	12835	413.65	2940.38	17	6.1
Miami	MIA	12839	566.82	2857.20	17	7.0
Key West	EYW	12836	424.03	2715.14	17	18.3
West Palm Beach	PBI	12844	587.87	2951.43	17	10.1
Upper Air Stations						
Ruskin	TBW	12842	349.20	3094.28	17	NA
West Palm Beach	PBI	12844	587.87	2951.42	17	NA
Key West	EYW	12836	424.03	2715.14	17	NA

Table J-5. Hourly Precipitation Stations Used in the CALPUFF Analysis

Station Name	Station Number	UTM Coordinate Easting (km)	UTM Coordinate Northing (km)	Zone
Belle Glade HRCN GT 4	80616	528.19	2953.03	17
Boca Raton	80845	588.75	2916.52	17
Canal Point Gate 5	81271	536.43	2971.51	17
Clewiston US Engineers	81654	546.19	2912.73	17
Fort Myers FAA/AP	83186	413.99	2940.71	17
Homestead Exp Stn	84091	550.26	2820.21	17
Key West Intl AP	84570	423.67	2715.51	17
Miami WSCMO Airport	85663	570.20	2856.17	17
Moore Haven Lock 1	85895	491.61	2967.80	17
North New River Canal #	86323	546.58	2912.48	17
Ortona Lock 2	86657	470.17	2962.27	17
Parrish	86880	366.99	3054.39	17
Pennsuco 5 WNW	86988	554.70	2867.81	17
Port Mayaca S 1 Canal	87293	538.04	2984.44	17
St Lucie New Lock 1	87859	571.04	2999.35	17
St Petersburg	87886	339.61	3071.99	17
Tamiami Trail 40 Mi BEN	88780	517.64	2849.04	17
Tampa WSCMO AP	88788	348.48	3093.67	17
Trail Glade Ranges	89010	551.57	2849.99	17
Venice	89176	357.59	2998.18	17
Venus	89184	467.27	3001.22	17
Vero Beach 4 W	89219	554.27	3056.50	17
West Palm Beach Int AP	89525	589.61	2951.63	17

APPENDIX I

EPA APPROVAL LETTER FOR USE OF ISC-PRIME MODEL

J

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

NOV 04 1999

4APT-ARB

Mr. A. A. Linero, P.E.
Administrator/New Source Review Section
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RECEIVED
NOV 10 1999
BUREAU OF AIR REGULATION

SUBJ: Use of ISC-PRIME
PSD Permit Application
U.S. Sugar Corporation Clewiston Mill
Clewiston, Florida

Dear Mr. Linero:

Thank you for providing the Prevention of Significant Deterioration (PSD) permit application for the U.S. Sugar Corporation - Clewiston Mill, dated June 1999. This application requests an increase in the operation of the sugar refinery and Boiler No. 4. Our review comments excluding the air quality impact assessment were provided in our September 20, 1999, letter. The purpose of this letter is to provide our evaluation of the appropriateness of the use of the none-guideline ISC-PRIME dispersion and transport model for the ambient air impact assessments resulting from the proposed Clewiston Mill modifications.

The justification for the use of the non-guideline model [i.e., model not recommended in the United States Environmental Protection Agency's (EPA) Guideline on Air Quality Models (40 C.F.R. 51, Appendix W)] was provided in the U.S. Sugar Clewiston Mill PSD permit application. This justification, combined with available articles and documents on the development and performance of the ISC-PRIME model, were the basis of our review and evaluation.

The reviewed articles and development documents reported ISC-PRIME to perform as well as or better than ISCST3 when predicted maximum concentrations are compared to observed measurements. ISC-PRIME was also found not to be significantly biased toward under-estimation of maximum concentrations. A summary of our case-by-case evaluation of ISC-PRIME for the U.S. Sugar Clewiston application is provided as an attachment.

Based on our evaluation of ISC-PRIME, EPA concurs with the use of this model for the Clewiston Mill air impact assessment. In accordance with EPA's division of responsibility with respect to non-guideline model approval, this EPA Region 4 case-by-case approval for the U.S.

Sugar Clewiston application is not an endorsement for use by any other source. EPA's Office of Air Quality Planning and Standards (OAQPS) is currently considering a generic approval of ISC-PRIME. If generically approved, ISC-PRIME may become a guideline model for general application.

It should be noted that any public notice of this project must include the fact that the air quality impact assessment was performed using a case-specific approved non-guideline ISC-PRIME model. The public must be provided an opportunity to comment and have a public hearing on this matter.

Thank you again for the opportunity to review and comment on this PSD application. If you have any questions, or if we can be of further assistance, please contact Mr. Stan Krivo of the EPA Region 4 staff at (404) 562-9123.

Sincerely,

Douglas Neeley

R. Douglas Neeley
Chief
Air and Radiation Technology Branch
Air, Pesticides and Toxics
Management Division

Attachment

cc: Joseph A. Tikuart, EPA/OAQPS
Cleve Holladay, FDEP
Tom Rogers, FDEP

Evaluation of ISC-PRIME For Application To U.S. Sugar Corporation Clewiston Mill Air Quality Impact Assessment

Introduction

The Florida Department of Environmental Protection (FDEP) has reviewed the Prevention of Significant Deterioration (PSD) permit application for a modification of U.S. Sugar Corporation (U.S. Sugar) Clewiston Mill. One of FDEP's concerns is the application of the non-guideline ISC-PRIME dispersion and transport model to the ambient air quality assessment. The use of the guideline ISCST3 dispersion and transport model for the U.S. Sugar Clewiston Mill emission sources reveals very large predicted SO_2 and PM10 concentrations at the site boundary - concentrations that exceed the PM10 and SO_2 National Ambient Air Quality Standards (NAAQS). Use of the ISC-PRIME model with the same input emission and receptor values also predicts large concentrations, but none that exceed the applicable PSD increments nor NAAQS.

The ISC-PRIME model has been submitted to the United State Environmental Protection Agency's (EPA) Office of Air Quality Planning and Standards (OAQPS) for consideration as a guideline model. OAQPS have reviewed and tested this model. It was also reviewed at the 1998 Regional/State/Local Agency Modelers Workshop. With a few restrictions, the Workshop participants recommended ISC-PRIME be included as a guideline air quality model in the next revision to the Guideline on Air Quality Models (GAQM).

Although OAQPS may propose ISC-PRIME for inclusion as a guideline model, this has not officially been proposed and public comment has not been solicited. Therefore, ISC-PRIME remains a non-guideline model that must be evaluated and approved for application on a case-by-case basis. The U.S. Sugar PSD application is the first time the ISC-PRIME model has been used in a regulatory application in EPA Region 4. The following is a summary of EPA Region 4's review of U.S. Sugar's justification of the appropriateness of ISC-PRIME for the assessment of ambient air impacts.

Reviewed Documents - ISC-Prime and U.S. Sugar Corporation

The following documents were reviewed in the case-by-case justification for the use of the non-guideline ISC-PRIME dispersion and transport model for the PSD air quality impact assessment of planned modifications of the U.S. Sugar Clewiston, Florida facility.

1. Hastings, Janis; "Review of the ISC-PRIME model, GVEA Healy Power Plant Air Quality Control No. X049"; Letter from U.S. Environmental Protection Agency Region 10 to Alaska Department of Environmental Conservation; April 29, 1998.

2. Paine, Robert J., and Frances Lew; "Project Prime: Evaluation of Building Downwash Models Using Field and Wind Tunnel Data"; Undated article and presentation slides developed by ENSR Corporation for Electric Power Research Institute (EPRI) Project RP 3527-02.

3. Paine, Robert J., and Frances Lew; "Results of the Independent Evaluation of ISCST3 and ISC-PRIME"; Final Report; Electric Power Research Institute; November 1997.

4. Shulman, Loyd L., David G. Strimaitis, and Joseph S. Scire; "Development and Evaluation of the Prime Plume Rise and Building Downwash Model"; Undated draft journal article by Earth Tech, Concord, MA.

5. Staff Report; "Consequences Analysis of Using ISC-PRIME Over the Industrial Source Complex Short Term Model"(Draft); U.S. Environmental Protection Agency; April 1998.

6. U.S. Sugar Corporation; "Information Submittal No. 3 - PSD Permit Application for Boiler No. 4 and the Sugar Refinery at the Clewiston Mill"; 13 September 1999.

7. U.S. Sugar Corporation; "PSD Permit Application for United States Sugar Corporation Clewiston Boiler No. 4 and Sugar Refinery," prepared by Golder Associates Inc.; June 1999.

Basis of Evaluation

The evaluation criteria for a case-by-case approval of an alternate or non-guideline model are given in Section 3.2 of 40 CFR Part 51, Appendix W - Guideline on Air Quality Models (GAQM). Section 3.2 presents three separate conditions under which an alternate model can be approved. The second condition is the basis for the justification of ISC-PRIME (i.e., statistical performance evaluation using measured air quality data results in the alternate model having better performance than a comparable guideline model). The issues addressed in Region 4's evaluation of the appropriateness and applicability of ISC-PRIME for the U.S. Sugar application include:

- Technical appropriateness of the model for the application.
- Appropriate data bases available to perform the modeling analysis.
- Model performance evaluations appropriate to U.S. Sugar and demonstrate no bias toward underestimates of concentrations.
- Better model performance when compared to reference guideline model.

Technical Consideration

The ISC-PRIME model was developed to improve the downwash algorithms of the ISCST3 regulatory guideline model. Two important shortcomings of the ISCST3 downwash treatment are the inability to predict concentrations in the building cavity (near wake) and to assess the affects of stack location relative to the influencing downwash structure. In addition, the downwash routines of ISCST3 were developed largely from ambient data representing neutral stability, moderate-to-high wind speeds, and winds perpendicular to the building face, with non- or low-buoyant plumes. These limitations were addressed in the development of ISC-PRIME.

Of major concern at the Clewiston Mill are emissions from the boiler stacks. These stacks are located between three and five building lengths from the buildings controlling downwash. Although EPA studies of the effects of building downwash within wakes show reduction as the stack's distance from the controlling building is increased, ISCST3 uses the full downwash effects independent of stack location in the wake region. Thus, ISCST3 modeling of the Clewiston emissions may produce less realistic estimates of wake dispersion than ISC-PRIME. Ambient concentrations from these two models for the Clewiston facility show ISC-PRIME with smaller concentrations in the wake region.

In terms of the basis of the downwash algorithms in the ISCST3 and ISC-PRIME models, both models' algorithm are semi-empirical. The empirical data used for ISC-PRIME were largely from an extensive series of USEPA performed wind tunnel experiments in 1992 and 1993. The ISCST3 downwash algorithms pre-date these experiments. Because ISC-PRIME is based on more extensive wind tunnel data sets, it has a stronger technical base than ISCST3.

On a theoretical basis, ISC-PRIME uses the conservation equations of mass, momentum, and energy. This model accounts for the streamline ascent over structure and decent in the wake region. Also the wind shear effects about and downwind of structures are accounted for in ISC-PRIME. Therefore, the theoretical basis of ISC-PRIME is technically more sophisticated than ISCST3 and may provide more realistic estimates of plume rise, dispersion, and transport conditions in the wake region - a condition applicable to the Clewiston application.

In terms of the data needed to run ISC-PRIME, the input data requirements are the same as ISCST3 with the exception of building and stack configurations and dimensions. Similar to the BPIP program providing building information for running ISCST3, a supplementary program BPIPPRM has been developed to provide the needed building information for the running of ISC-PRIME. Therefore, adequate input data exists to perform ISC-PRIME model analysis for U.S. Sugar Clewiston.

Data Bases For Model Development And Performance

The data bases used in the development of ISC-PRIME included wind tunnel studies, numerical model results, and both short-term tracer and long-term field measurement programs. An independent evaluation of the completed model was performed by an EPRI contractor using four data bases. This was an independent evaluation as it was: 1) Conducted by a contractor not involved with model development; and 2) Data bases used in evaluation were not used in the model development. A number of performance measures were considered and statistical tests performed to determine the significance of the performance differences observed. Thus, adequate data bases exist for both the development and evaluation of model performance.

Performance Evaluations

Comparison With Data Bases

In the assessment of ISC-PRIME model performance, meteorological conditions that produce the highest ground-level concentrations were used (e.g., near-neutral stability and moderate to high wind speeds). Comparsion of both ISCST3 and ISC-PRIME predicted concentrations against the independent data bases show that for these downwash producing meteorological conditions, the two models performances were comparable, with ISC-PRIME performing slightly better (i.e., better agreement with observations) than ISCST3.

Site specific data from the Clewiston facility site would provide the most relevant basis for model performance evaluation. These data were not available so a review of the similarity of the emissions, plant configuration, and receptor conditions used in the ISC-PRIME model evaluation was performed to determine the applicability of the evaluation to the Clewiston application. Of the evaluation data bases used, the Bowline Point and the Lee Power Plant data were the most similar to the boilers at the Clewiston facility in terms of stack heights (87 and 65 meters respectively) and stack to building ratios (1.3 and 1.5 respectively). The buoyant and momentum fluxes for these power plants are expected to be representative of those at Clewiston. Although the evaluation and development data bases were not obtained under the same plant configuration as U.S. Sugar Clewiston, they are believed to relevant and representative of the U.S. Sugar Clewiston.

Comparison With Reference Model

The performance evaluation comparisons of the ISC-PRIME and ISCST3 models demonstrated ISC-PRIME with generally as well or better agreement with observed maximum concentrations during downwash conditions. ISC-PRIME did not demonstrate a bias toward under predictions. Thus, an independent evaluation demonstrated ISC-PRIME with an overall performance as good as, or better than, ISCST3 in downwash conditions.

EPA performed its own consequence analysis of the ISC-PRIME software and EPRI reports. This consisted of verifying that ISCST3 and ISC-PRIME produced the same results when no building dimensions were included, confirming the independent modeling results, and determining the consequences of using ISC-PRIME for building downwash applications.

- The consequence analysis showed that both models produced the same results when run without building input data. The PRIME downwash algorithms do not interfere with the proper operation of the model under no downwash conditions.

- The three field studies used in the EPRI independent evaluation showed ISC-PRIME tends to be less conservative than ISCST3 but more conservative (i.e., produces larger concentrations) than the observed values.

- For cavity analyses, output differences between ISCST3 and ISC-PRIME were dependent on stack location, stack to building height ratios, urban/rural setting, and downwind distances. ISC-PRIME and ISCST3 converge on common concentrations beyond 1 km and are the same beyond 10 km.

In summary, ISC-PRIME provides overall conservative estimates of concentrations that are more realistic than those provided by ISCST3.

Conclusion and Recommendation

Based on the application of Section 3.2 of 40 CFR Part 51, Appendix W (Guideline on Air Quality Models) for the evaluation of the use of an alternate model, ISC-PRIME appears appropriate and applicable for the U.S. Sugar Clewiston air quality impact assessment. ISC-PRIME appears to be technically better than ISCST3 and is better at predicting maximum concentrations during downwash conditions. In terms of application to the U.S. Sugar Clewiston facility, it appears that ISC-PRIME would provide a more realistic but conservative estimate of the maximum downwash concentrations from this facility, while also providing concentrations equal to ISCST3 predictions beyond the wake region. Therefore, ISC-PRIME is considered applicable and appropriate for application to the air quality impact assessment for the U.S. Sugar Company's Clewiston Mill.

APPENDIX K

BPIP INPUT AND OUTFILES
WITH SOURCE, BUILDINGS,
AND RECEPTOR LOCATIONS

```
'BPIP data EXISTING for US Sugar Corp wrt Boiler 4 stack -3/24/03'
'ST'
'FEET'  0.3048
'UTMN' 0
22
'ElectEquip' 1 0.0
[illegible]100
[illegible]0.31     -344.07
624.57     -317.07
718.08     -297.20
723.82     -324.19
'Supportstrt' 1  0.0
4 130
608.73     -242.54
624.57     -317.07
718.08     -297.20
702.24     -222.66
'Dryer Area' 1  0.0
4 100
608.73     -242.54
600.62     -204.39
694.13     -184.51
702.24     -222.66
'ScreenigDistTowr' 1  0.0
4 150
642.79      -82.46
657.07     -149.66
780.71     -123.38
766.43      -56.18
'SpecPackArea' 1 0.0
4 40
717.45     -220.65
759.37     -417.85
839.68     -400.78
797.76     -203.58
'Packing Facil' 1 0.0
4 40
824.64     -330.06
766.43      -56.18
830.01      -42.66
888.22     -316.54
'Sugar Silos' 1  0.0
[illegible]136
[illegible]2.79      -82.46
657.07     -149.66
547.91     -172.86
533.57     -105.37
'pel. whse'  1  0.0
4 46.0
-682  212
-155  212
-155  107
-682  107
'WDA'  1    0.0
4  51.0
 -85  153
 -32  153
 -32   98
 -85   98
'S&Safety' 1   0.0
4  34.8
 -85   15
 -32   15
 -32   98
 -85   98
'Blr 4 Bld' 1  0.0
4 87.5
 -32  -13
  34  -13
  34  -91
 -32  -91
'Blr 5&6 Bld'  1  0.0
4 56.0
  34  -95
 100  -95
 100   23
  34   23
'Blr 1&2 Bld'  1  0.0
[illegible] 67.25
[illegible]00   15
 215   15
 215  -88
 100  -88
'pwrhse'  1    0.0
```

```
8  34.0
 215  -69
 215  -23
 334  -23
 334  -79
 295  -79
 295  -88
 256  -88
 256  -69
'w-hose'     1    0.0
6 37.0
 -97 -119
  56 -119
  56 -176
   6 -176
   6 -190
 -97 -190
'shop'    1    0.0
6 39
-241 -276
 -57 -276
 -57 -235
  68 -235
  68 -341
-241 -341
'B Mill'    1  0.0
4 68.0
  78 -147
 159 -147
 159 -372
  78 -372
'A Mill'    1  0.0
4  69.0
 159 -372
 159 -129
 226 -129
 226 -372
'Boiling Hse' 1  0.0
6 93.67
 226 -313
 226 -176
 381 -176
 381 -357
 312 -357
 312 -313
'Blr 7 ESP'  1  0.0
4 87.5
-123   15
-123   70
 -90   70
 -90   15
'Blr 7 bld'   1  0.0
4 83.0
-133   15
-133  -91
 -32  -91
 -32   15
'SugarWhs#3' 1  0.0
4 55.0
1304.0 228.4
1304.0  85.0
2075.3  85.0
2075.3 228.4
23
'BLR1'  0.0   165.0    185.0   -5.0
'BLR2'  0.0   165.0    143.0   -5.0
'BLR3'  0.0   213.0     95.0   18.0
'BLR4'  0.0   150.0      0.0    0.0
'BLR5'  0.0    65.0     78.0   25.0
'BLR6'  0.0    65.0     40.0   25.0
'BLR7'  0.0   225.0   -106.5   65.0
 'S-1'  0.0    65.0     664.79      -155.17
 'S-2'  0.0    65.0     700.98      -147.48
 'S-3'  0.0    65.0     700.98      -147.48
 'S-4'  0.0    60.0     774.34      -131.89
 'S-5'  0.0    72.0     700.98      -147.48
 'S-6'  0.0    72.0     700.98      -147.48
 'S-7'  0.0   130.0     637.28      -150.80
 'S-8'  0.0   130.0     602.07      -158.28
 'S-9'  0.0   130.0     566.85      -165.77
 'S-10'  0.0   75.0     695.66      -194.62
 'S-11'  0.0   10.0    2045.01       214.88
 'S-12'  0.0   30.0     603.97      -398.13
 'S-13'  0.0  130.0     622.85       -92.52
```

```
 'S-14'  0.0  130.0      588.61      -99.80
 'S-15'  0.0  130.0      549.49     -108.12
 'S-16'  0.0   55.0      767.14     -266.32
0
```

BPIP (Dated: 95086)
BPIP data EXISTING for US Sugar Corp wrt Boiler 4 stack -3/24/03

===========================
BPIP PROCESSING INFORMATION:
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The ST flag has been set for processing for an ISCST2 run.

Inputs entered in FEET will be converted to meters using a conversion factor of 0.3048. Output will be in meters.

UTMP is set to UTMN. The input is assumed to be in a local X-Y coordinate system as opposed to a UTM coordinate system. True North is in the positive Y direction.

Plant north is set to 0.00 degrees with respect to True North.

BPIP data EXISTING for US Sugar Corp wrt Boiler 4 stack -3/24/03

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
BLR1	50.29	0.00	103.63	103.63
BLR2	50.29	0.00	103.63	103.63
BLR3	64.92	0.00	103.63	103.63
BLR4	45.72	0.00	103.63	103.63
BLR5	19.81	0.00	103.63	103.63
BLR6	19.81	0.00	103.63	103.63
BLR7	68.58	0.00	103.63	103.63
S-1	19.81	0.00	111.50	111.50
S-2	19.81	0.00	111.50	111.50
S-3	19.81	0.00	111.50	111.50
S-4	18.29	0.00	111.50	111.50
S-5	21.95	0.00	111.50	111.50
S-6	21.95	0.00	111.50	111.50
S-7	39.62	0.00	111.49	111.49
S-8	39.62	0.00	110.12	110.12
S-9	39.62	0.00	104.85	104.85
S-10	22.86	0.00	111.50	111.50
S-11	3.05	0.00	41.91	65.00
S-12	9.14	0.00	111.49	111.49
S-13	39.62	0.00	111.50	111.50
S-14	39.62	0.00	109.69	109.69
S-15	39.62	0.00	103.63	103.63
S-16	16.76	0.00	111.50	111.50

* 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.

BPIP (Dated: 95086)

DATE : 0/ 0/ 0
TIME : 0: 0: 0

BPIP data EXISTING for US Sugar Corp wrt Boiler 4 stack -3/24/03

BPIP output is in meters

SO BUILDHGT	BLR1	21.03	21.03	20.73	20.73	26.67	26.67
SO BUILDHGT	BLR1	26.67	26.67	26.67	26.67	26.67	20.50
SO BUILDHGT	BLR1	28.55	28.55	28.55	28.55	28.55	28.55

```
SO BUILDHGT BLR1       21.03   21.03   20.73   20.73   26.67   26.67
SO BUILDHGT BLR1       26.67   26.67   39.62   41.45   41.45   41.45
SO BUILDHGT BLR1       39.62   28.55   28.55   28.55   28.55   28.55
SO BUILDWID BLR1       32.97   44.52   55.67   63.00   31.14   30.65
SO BUILDWID BLR1       29.22   26.91   49.07   26.91   40.07   44.71
SO BUILDWID BLR1       62.36   63.03   61.79   58.68   53.78   47.24
SO BUILDWID BLR1       32.97   44.52   55.67   63.00   31.14   30.65
SO BUILDWID BLR1       29.22   26.91   79.52   46.59   56.20   64.10
SO BUILDWID BLR1       88.71   63.03   61.79   58.68   53.78   47.24
SO BUILDLEN BLR1       76.49   76.58   71.74   68.40   30.69   29.31
SO BUILDLEN BLR1       27.03   23.94   47.85   23.94   61.75   46.05
SO BUILDLEN BLR1       71.65   72.63   71.40   68.00   62.53   55.17
SO BUILDLEN BLR1       76.49   76.58   71.74   68.40   30.69   29.31
SO BUILDLEN BLR1       27.03   23.94   75.33   75.14   72.66   67.98
SO BUILDLEN BLR1       80.66   72.63   71.40   68.00   62.53   55.17
SO XBADJ    BLR1     -111.54 -107.83 -113.18 -106.65  -67.52  -70.39
SO XBADJ    BLR1      -71.12  -69.69  -93.88  -64.71  -96.04  -25.48
SO XBADJ    BLR1       43.08   47.96   51.39   53.25   53.50   52.12
SO XBADJ    BLR1       35.05   31.24   41.45   38.25   36.82   41.08
SO XBADJ    BLR1       44.08   45.75 -181.57 -185.08 -182.96 -175.29
SO XBADJ    BLR1     -181.72 -120.59 -122.79 -121.25 -116.03 -107.29
SO YBADJ    BLR1      -15.25  -27.74  -21.23  -34.33   25.08   15.64
SO YBADJ    BLR1        5.72   -4.37   -1.68  -23.85  -27.22  -12.51
SO YBADJ    BLR1      -32.70  -19.25   -5.22    8.97   22.89   36.12
SO YBADJ    BLR1       15.25   27.74   21.23   34.33  -25.08  -15.64
SO YBADJ    BLR1       -5.72    4.37   55.36    7.88  -17.85  -43.05
SO YBADJ    BLR1      -57.61   19.25    5.22   -8.97  -22.89  -36.12

SO BUILDHGT BLR2       20.73   20.73   20.73   26.67   26.67   26.67
SO BUILDHGT BLR2       26.67   26.67   26.67   26.67   26.67   28.55
SO BUILDHGT BLR2       28.55   28.55   21.03   21.03   28.55   21.03
SO BUILDHGT BLR2       20.73   20.73   20.73   26.67   26.67   26.67
SO BUILDHGT BLR2       26.67   26.67   39.62   41.45   41.45   41.45
SO BUILDHGT BLR2       28.55   28.55   28.55   28.55   28.55   21.03
SO BUILDWID BLR2       36.22   46.66   55.67   30.69   31.14   30.65
SO BUILDWID BLR2       29.22   26.91   49.07   26.91   40.07   59.79
SO BUILDWID BLR2       62.36   63.03   54.72   44.52   53.78   67.67
SO BUILDWID BLR2      102.07   46.66   55.67   30.69   31.14   30.65
SO BUILDWID BLR2       29.22   26.91   79.52   46.59   56.20   64.10
SO BUILDWID BLR2       62.36   63.03   61.79   58.68   53.78   67.67
SO BUILDLEN BLR2       71.83   72.89   71.74   31.14   30.69   29.31
SO BUILDLEN BLR2       27.03   23.94   47.85   23.94   61.75   68.50
SO BUILDLEN BLR2       71.65   72.63   74.35   76.58   62.53   74.07
SO BUILDLEN BLR2       80.77   72.89   71.74   31.14   30.69   29.31
SO BUILDLEN BLR2       27.03   23.94   75.33   75.14   72.66   67.98
SO BUILDLEN BLR2       71.65   72.63   71.40   68.00   62.53   74.07
SO XBADJ    BLR2     -113.60 -111.89 -106.78  -54.37  -57.71  -59.30
SO XBADJ    BLR2      -59.09  -57.08  -81.08  -52.11  -84.01   47.97
SO XBADJ    BLR2       52.88   56.19   35.17   37.18   55.72   37.80
SO XBADJ    BLR2       32.83   39.00   35.04   23.22   27.02   29.99
SO XBADJ    BLR2       32.05   33.14 -194.37 -197.69 -194.99 -186.37
SO XBADJ    BLR2     -124.54 -128.82 -129.19 -125.63 -118.26 -111.86
SO YBADJ    BLR2       -6.12  -19.51  -32.32   23.95   16.85    9.23
SO YBADJ    BLR2        1.34   -6.59   -1.68  -21.62  -22.84  -38.76
SO YBADJ    BLR2      -24.48   -9.45  -24.35  -11.42   35.50   38.71
SO YBADJ    BLR2       39.04   19.51   32.32  -23.95  -16.85   -9.23
SO YBADJ    BLR2       -1.34    6.59   55.36    5.66  -22.23  -49.45
SO YBADJ    BLR2       24.48    9.45   -5.87  -21.00  -35.50  -38.71

SO BUILDHGT BLR3       26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR3       26.67   26.67   26.67   26.67   26.67   21.03
SO BUILDHGT BLR3       20.73   20.73   20.73   20.50   20.50   20.50
SO BUILDHGT BLR3       26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR3       26.67   26.67   26.67   41.45   41.45   41.45
SO BUILDHGT BLR3       28.55   28.55   28.55   28.55   21.03   20.73
SO BUILDWID BLR3       55.65   27.03   29.31   30.69   31.14   30.65
SO BUILDWID BLR3       29.22   26.91   49.07   26.91   40.07   85.57
SO BUILDWID BLR3      105.13  109.15   55.67   43.68   39.97   35.05
SO BUILDWID BLR3       55.65   27.03   29.31   30.69   31.14   30.65
SO BUILDWID BLR3       29.22   26.91   49.07   46.59   56.20   64.10
SO BUILDWID BLR3       62.36   63.03   61.79   58.68   32.97   24.69
SO BUILDLEN BLR3       45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR3       27.03   23.94   47.85   23.94   61.75   93.35
SO BUILDLEN BLR3      111.89  108.40   71.74   41.49   37.00   31.39
SO BUILDLEN BLR3       45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR3       27.03   23.94   47.85   75.14   72.66   67.98
SO BUILDLEN BLR3       71.65   72.63   71.40   68.00   76.49   68.58
SO XBADJ    BLR3      -39.44  -44.46  -48.13  -50.33  -51.01  -50.14
SO XBADJ    BLR3      -47.74  -43.89  -66.45  -36.48  -67.86   39.30
SO XBADJ    BLR3       28.36   35.20   40.96    1.38    1.17    0.91
SO XBADJ    BLR3       -5.82   15.24   17.48   19.19   20.32   20.83
SO XBADJ    BLR3       20.70   19.95   18.59 -213.31 -211.14 -202.55
```

SO	XBADJ	BLR3	-140.25	-143.59	-142.57	-137.22	-124.00	-118.87
SO	YBADJ	BLR3	40.37	19.63	14.14	8.23	2.07	-4.15
SO	YBADJ	BLR3	-10.25	-16.04	-8.69	-25.99	-24.43	-50.41
SO	YBADJ	BLR3	-41.83	-25.80	-36.09	12.22	15.88	19.05
SO	YBADJ	BLR3	-40.37	-19.63	-14.14	-8.23	-2.07	4.15
SO	YBADJ	BLR3	10.25	16.04	8.69	10.02	-20.65	-50.69
SO	YBADJ	BLR3	20.44	2.75	-15.03	-32.35	-15.06	-7.16

SO	BUILDHGT	BLR4	26.67	26.67	26.67	26.67	26.67	26.67
SO	BUILDHGT	BLR4	26.67	26.67	26.67	26.67	26.67	26.67
SO	BUILDHGT	BLR4	26.67	26.67	26.67	26.67	26.67	26.67
SO	BUILDHGT	BLR4	26.67	26.67	26.67	26.67	26.67	26.67
SO	BUILDHGT	BLR4	26.67	26.67	39.62	41.45	41.45	39.62
SO	BUILDHGT	BLR4	28.55	28.55	28.55	26.67	26.67	26.67
SO	BUILDWID	BLR4	55.65	27.03	29.31	30.69	31.14	30.65
SO	BUILDWID	BLR4	29.22	26.91	49.07	26.91	29.22	30.65
SO	BUILDWID	BLR4	31.14	30.69	29.31	27.03	45.64	47.85
SO	BUILDWID	BLR4	55.65	27.03	29.31	30.69	31.14	30.65
SO	BUILDWID	BLR4	29.22	26.91	79.52	46.59	56.20	90.49
SO	BUILDWID	BLR4	62.36	63.03	61.79	27.03	45.64	47.85
SO	BUILDLEN	BLR4	45.26	29.22	30.65	31.14	30.69	29.31
SO	BUILDLEN	BLR4	27.03	23.94	47.85	23.94	27.03	29.31
SO	BUILDLEN	BLR4	30.69	31.14	30.65	29.22	56.64	49.07
SO	BUILDLEN	BLR4	45.26	29.22	30.65	31.14	30.69	29.31
SO	BUILDLEN	BLR4	27.03	23.94	75.33	75.14	72.66	77.94
SO	BUILDLEN	BLR4	71.65	72.63	71.40	29.22	56.64	49.07
SO	XBADJ	BLR4	-29.01	-29.40	-28.90	-27.52	-25.30	-22.32
SO	XBADJ	BLR4	-18.65	-14.42	-37.49	-8.92	-7.81	-6.47
SO	XBADJ	BLR4	-4.92	-3.23	-1.45	0.39	-27.52	-21.34
SO	XBADJ	BLR4	-16.25	0.18	-1.75	-3.63	-5.39	-6.99
SO	XBADJ	BLR4	-8.38	-9.52	-237.96	-240.88	-236.47	-234.84
SO	XBADJ	BLR4	-158.90	-158.00	-152.30	-29.61	-29.11	-27.74
SO	YBADJ	BLR4	12.80	-5.71	-8.19	-10.42	-12.34	-13.88
SO	YBADJ	BLR4	-15.00	-15.66	-3.20	-15.56	-14.79	-13.57
SO	YBADJ	BLR4	-11.95	-9.95	-7.66	-5.13	-13.30	-13.56
SO	YBADJ	BLR4	-12.80	5.71	8.19	10.42	12.34	13.88
SO	YBADJ	BLR4	15.00	15.66	56.88	-0.41	-35.71	-56.73
SO	YBADJ	BLR4	-2.37	-22.96	-42.85	5.13	13.30	13.56

SO	BUILDHGT	BLR5	26.67	26.67	26.67	26.67	26.67	26.67
SO	BUILDHGT	BLR5	26.67	26.67	26.67	26.67	26.67	20.73
SO	BUILDHGT	BLR5	20.73	20.73	20.50	20.50	20.50	20.50
SO	BUILDHGT	BLR5	26.67	26.67	26.67	26.67	26.67	26.67
SO	BUILDHGT	BLR5	26.67	26.67	26.67	41.45	41.45	41.45
SO	BUILDHGT	BLR5	28.55	28.55	28.55	28.55	21.03	20.73
SO	BUILDWID	BLR5	55.65	27.03	29.31	30.69	31.14	30.65
SO	BUILDWID	BLR5	29.22	26.91	49.07	45.26	40.07	97.91
SO	BUILDWID	BLR5	105.13	109.15	46.05	43.68	39.97	35.05
SO	BUILDWID	BLR5	55.65	27.03	29.31	30.69	31.14	30.65
SO	BUILDWID	BLR5	29.22	26.91	49.07	46.59	56.20	64.10
SO	BUILDWID	BLR5	62.36	63.03	61.79	58.68	32.97	24.69
SO	BUILDLEN	BLR5	45.26	29.22	30.65	31.14	30.69	29.31
SO	BUILDLEN	BLR5	27.03	23.94	47.85	55.65	61.75	111.99
SO	BUILDLEN	BLR5	111.89	108.40	44.71	41.49	37.00	31.39
SO	BUILDLEN	BLR5	45.26	29.22	30.65	31.14	30.69	29.31
SO	BUILDLEN	BLR5	27.03	23.94	47.85	75.14	72.66	67.98
SO	BUILDLEN	BLR5	71.65	72.63	71.40	68.00	76.49	68.58
SO	XBADJ	BLR5	-40.64	-44.69	-47.38	-48.64	-48.41	-46.71
SO	XBADJ	BLR5	-43.60	-39.16	-61.26	-62.72	-62.26	26.21
SO	XBADJ	BLR5	33.70	40.16	5.99	5.16	4.17	3.05
SO	XBADJ	BLR5	-4.62	15.47	16.74	17.49	17.72	17.41
SO	XBADJ	BLR5	16.56	15.22	13.41	-218.79	-216.74	-208.10
SO	XBADJ	BLR5	-145.59	-148.56	-147.01	-141.00	-127.00	-121.01
SO	YBADJ	BLR5	34.89	14.03	8.59	2.89	-2.89	-8.59
SO	YBADJ	BLR5	-14.03	-19.04	-10.82	-18.01	-24.66	-55.84
SO	YBADJ	BLR5	-40.13	-23.21	11.61	16.36	20.61	24.23
SO	YBADJ	BLR5	-34.89	-14.03	-8.59	-2.89	2.89	8.59
SO	YBADJ	BLR5	14.03	19.04	10.82	11.23	-20.42	-51.44
SO	YBADJ	BLR5	18.75	0.15	-18.45	-36.49	-19.79	-12.34

SO	BUILDHGT	BLR6	26.67	26.67	26.67	26.67	26.67	26.67
SO	BUILDHGT	BLR6	26.67	26.67	26.67	26.67	26.67	26.67
SO	BUILDHGT	BLR6	26.67	26.67	26.67	26.67	26.67	26.67
SO	BUILDHGT	BLR6	26.67	26.67	26.67	26.67	26.67	26.67
SO	BUILDHGT	BLR6	26.67	26.67	26.67	41.45	41.45	39.62
SO	BUILDHGT	BLR6	28.55	28.55	28.55	26.67	26.67	26.67
SO	BUILDWID	BLR6	55.65	27.03	29.31	30.69	31.14	30.65
SO	BUILDWID	BLR6	29.22	26.91	49.07	26.91	29.22	30.65
SO	BUILDWID	BLR6	31.14	30.69	29.31	27.03	45.64	47.85
SO	BUILDWID	BLR6	55.65	27.03	29.31	30.69	31.14	30.65
SO	BUILDWID	BLR6	29.22	26.91	49.07	46.59	56.20	90.49

```
SO BUILDWID BLR6       62.36   63.03   61.79   27.03   45.64   47.85
SO BUILDLEN BLR6       45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR6       27.03   23.94   47.85   23.94   27.03   29.31
SO BUILDLEN BLR6       30.69   31.14   30.65   29.22   56.64   49.07
SO BUILDLEN BLR6       45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR6       27.03   23.94   47.85   75.14   72.66   77.94
SO BUILDLEN BLR6       71.65   72.63   71.40   29.22   56.64   49.07
SO XBADJ    BLR6      -38.63  -40.73  -41.59  -41.19  -39.54  -36.68
SO XBADJ    BLR6      -32.71  -27.75  -49.68  -19.60  -16.66  -13.21
SO XBADJ    BLR6       -9.37   -5.23   -0.94    3.38  -22.13  -13.72
SO XBADJ    BLR6       -6.63   11.51   10.95   10.05    8.85    7.37
SO XBADJ    BLR6        5.68    3.81    1.83 -230.19 -227.62 -228.09
SO XBADJ    BLR6     -154.46 -156.00 -152.80  -32.60  -34.50  -35.36
SO YBADJ    BLR6       23.49    3.14   -1.44   -5.98  -10.34  -14.38
SO YBADJ    BLR6      -17.99  -21.05  -10.82  -25.18  -26.12  -26.27
SO YBADJ    BLR6      -25.62  -24.19  -22.03  -19.20  -26.63  -25.76
SO YBADJ    BLR6      -23.49   -3.14    1.44    5.98   10.34   14.38
SO YBADJ    BLR6       17.99   21.05   10.82    9.21  -24.38  -44.04
SO YBADJ    BLR6       11.30   -8.72  -28.48   19.20   26.63   25.76

SO BUILDHGT BLR7       26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR7       26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR7       26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR7       26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR7       26.67   26.67   26.67   41.45   41.45   28.55
SO BUILDHGT BLR7       28.55   28.55   26.67   26.67   26.67   26.67
SO BUILDWID BLR7       55.65   61.75   65.98   68.20   68.35   66.43
SO BUILDWID BLR7       62.48   56.64   49.07   45.26   29.22   30.65
SO BUILDWID BLR7       31.14   30.69   29.31   27.03   45.64   47.85
SO BUILDWID BLR7       55.65   61.75   65.98   68.20   68.35   66.43
SO BUILDWID BLR7       62.48   56.64   49.07   46.59   56.20   59.79
SO BUILDWID BLR7       62.36   63.03   29.31   27.03   45.64   47.85
SO BUILDLEN BLR7       45.26   40.07   33.66   31.14   31.17   37.18
SO BUILDLEN BLR7       42.05   45.64   47.85   55.65   27.03   29.31
SO BUILDLEN BLR7       30.69   31.14   30.65   29.22   56.64   49.07
SO BUILDLEN BLR7       45.26   40.07   33.66   31.14   31.17   37.18
SO BUILDLEN BLR7       42.05   45.64   47.85   75.14   72.66   68.50
SO BUILDLEN BLR7       71.65   72.63   30.65   29.22   56.64   49.07
SO XBADJ    BLR7      -42.88  -36.91  -29.82  -21.83  -13.65  -11.98
SO XBADJ    BLR7       -9.94   -7.60   -5.03   -5.22   29.47   31.55
SO XBADJ    BLR7       32.68   32.81   31.94   30.11   -2.37   -1.52
SO XBADJ    BLR7       -2.37   -3.15   -3.83   -9.31  -17.52  -25.20
SO XBADJ    BLR7      -32.11  -38.05  -42.82 -276.28 -273.75 -193.00
SO XBADJ    BLR7     -196.51 -194.04  -62.59  -59.33  -54.26  -47.55
SO YBADJ    BLR7      -22.61  -25.63  -27.87  -29.27  -29.78  -29.38
SO YBADJ    BLR7      -28.09  -25.94  -23.01  -20.25  -22.30  -14.50
SO YBADJ    BLR7       -6.26    2.18   10.55   18.59   15.22   18.90
SO YBADJ    BLR7       22.61   25.63   27.87   29.27   29.78   29.38
SO YBADJ    BLR7       28.09   25.94   23.01   13.47  -28.19   19.21
SO YBADJ    BLR7       -8.06  -35.09  -10.55  -18.59  -15.22  -18.90

SO BUILDHGT S-1        45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-1        39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-1        45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDHGT S-1        45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-1        39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-1        45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDWID S-1        43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-1        74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-1        43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDWID S-1        43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-1        74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-1        43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDLEN S-1        33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-1        74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-1        40.22   36.58   31.82   26.10   22.27   28.49
SO BUILDLEN S-1        33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-1        74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-1        40.22   36.58   31.82   26.10   22.27   28.49
SO XBADJ    S-1         1.25    0.77    0.28   -0.23  -30.76  -33.55
SO XBADJ    S-1       -35.32   -2.76  -40.00  -42.02  -42.78  -16.89
SO XBADJ    S-1       -19.38  -21.29  -22.55  -23.12  -24.33  -30.17
SO XBADJ    S-1       -35.09  -38.95  -41.62  -43.03  -43.13  -41.92
SO XBADJ    S-1       -39.43  -36.48  -35.33  -33.11  -29.89  -25.75
SO XBADJ    S-1       -20.84  -15.29   -9.27   -2.98    2.06    1.68
SO YBADJ    S-1       -11.33   -8.00   -4.43   -0.73   11.02   11.93
SO YBADJ    S-1        -9.15   13.20   -9.59   11.80   10.85   20.95
SO YBADJ    S-1        21.40   21.20   20.36   18.90   16.86   14.31
SO YBADJ    S-1        11.33    8.00    4.43    0.73  -11.02  -11.93
SO YBADJ    S-1         9.15  -13.20    9.59  -11.80  -10.85  -20.95
SO YBADJ    S-1       -21.40  -21.20  -20.36  -18.90  -16.86  -14.31
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SO BUILDHGT S-2       45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-2       39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-2       45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDHGT S-2       45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-2       39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-2       45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDWID S-2       43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-2       74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-2       43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDWID S-2       43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-2       74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-2       43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDLEN S-2       33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-2       74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-2       40.22   36.58   31.82   26.10   22.27   28.49
SO BUILDLEN S-2       33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-2       74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-2       40.22   36.58   31.82   26.10   22.27   28.49
SO XBADJ    S-2       -2.98   -5.20   -7.27   -9.11  -40.71  -44.27
SO XBADJ    S-2      -46.49  -14.03  -51.03  -52.48  -52.34  -25.27
SO XBADJ    S-2      -26.33  -26.58  -26.03  -24.69  -23.94  -27.83
SO XBADJ    S-2      -30.87  -32.97  -34.07  -34.14  -33.17  -31.19
SO XBADJ    S-2      -28.26  -25.21  -24.30  -22.66  -20.32  -17.37
SO XBADJ    S-2      -13.89   -9.99   -5.79   -1.41    1.67   -0.66
SO YBADJ    S-2       -0.87    1.56    3.95    6.22   16.32   15.42
SO YBADJ    S-2       -7.58   12.81  -11.93    7.57    4.87   13.40
SO YBADJ    S-2       12.51   11.24    9.63    7.73    5.59    3.28
SO YBADJ    S-2        0.87   -1.56   -3.95   -6.22  -16.32  -15.42
SO YBADJ    S-2        7.58  -12.81   11.93   -7.57   -4.87  -13.40
SO YBADJ    S-2      -12.51  -11.24   -9.63   -7.73   -5.59   -3.28


SO BUILDHGT S-3       45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-3       39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-3       45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDHGT S-3       45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-3       39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-3       45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDWID S-3       43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-3       74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-3       43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDWID S-3       43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-3       74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-3       43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDLEN S-3       33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-3       74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-3       40.22   36.58   31.82   26.10   22.27   28.49
SO BUILDLEN S-3       33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-3       74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-3       40.22   36.58   31.82   26.10   22.27   28.49
SO XBADJ    S-3       -2.98   -5.20   -7.27   -9.11  -40.71  -44.27
SO XBADJ    S-3      -46.49  -14.03  -51.03  -52.48  -52.34  -25.27
SO XBADJ    S-3      -26.33  -26.58  -26.03  -24.69  -23.94  -27.83
SO XBADJ    S-3      -30.87  -32.97  -34.07  -34.14  -33.17  -31.19
SO XBADJ    S-3      -28.26  -25.21  -24.30  -22.66  -20.32  -17.37
SO XBADJ    S-3      -13.89   -9.99   -5.79   -1.41    1.67   -0.66
SO YBADJ    S-3       -0.87    1.56    3.95    6.22   16.32   15.42
SO YBADJ    S-3       -7.58   12.81  -11.93    7.57    4.87   13.40
SO YBADJ    S-3       12.51   11.24    9.63    7.73    5.59    3.28
SO YBADJ    S-3        0.87   -1.56   -3.95   -6.22  -16.32  -15.42
SO YBADJ    S-3        7.58  -12.81   11.93   -7.57   -4.87  -13.40
SO YBADJ    S-3      -12.51  -11.24   -9.63   -7.73   -5.59   -3.28


SO BUILDHGT S-4       45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-4       39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-4       45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDHGT S-4       45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-4       39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-4       45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDWID S-4       43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-4       74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-4       43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDWID S-4       43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-4       74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-4       43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDLEN S-4       33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-4       74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-4       40.22   36.58   31.82   26.10   22.27   28.49
SO BUILDLEN S-4       33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-4       74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-4       40.22   36.58   31.82   26.10   22.27   28.49
SO XBADJ    S-4      -11.54  -17.31  -22.56  -27.12  -60.90  -66.01
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SO	XBADJ	S-4	-69.12	-36.87	-73.39	-73.68	-71.73	-42.26
SO	XBADJ	S-4	-40.40	-37.31	-33.10	-27.87	-23.14	-23.08
SO	XBADJ	S-4	-22.31	-20.86	-18.78	-16.13	-12.99	-9.45
SO	XBADJ	S-4	-5.63	-2.36	-1.94	-1.46	-0.94	-0.38
SO	XBADJ	S-4	0.18	0.74	1.28	1.77	0.87	-5.42
SO	YBADJ	S-4	20.32	20.95	20.94	20.29	27.05	22.48
SO	YBADJ	S-4	-4.39	12.01	-16.68	-0.99	-7.24	-1.89
SO	YBADJ	S-4	-5.50	-8.94	-12.11	-14.91	-17.25	-19.08
SO	YBADJ	S-4	-20.32	-20.95	-20.94	-20.29	-27.05	-22.48
SO	YBADJ	S-4	4.39	-12.01	16.68	0.99	7.24	1.89
SO	YBADJ	S-4	5.50	8.94	12.11	14.91	17.25	19.08

SO	BUILDHGT	S-5	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-5	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-5	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S-5	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-5	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-5	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S-5	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S-5	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S-5	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S-5	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S-5	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S-5	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S-5	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-5	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-5	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S-5	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-5	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-5	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S-5	-2.98	-5.20	-7.27	-9.11	-40.71	-44.27
SO	XBADJ	S-5	-46.49	-14.03	-51.03	-52.48	-52.34	-25.27
SO	XBADJ	S-5	-26.33	-26.58	-26.03	-24.69	-23.94	-27.83
SO	XBADJ	S-5	-30.87	-32.97	-34.07	-34.14	-33.17	-31.19
SO	XBADJ	S-5	-28.26	-25.21	-24.30	-22.66	-20.32	-17.37
SO	XBADJ	S-5	-13.89	-9.99	-5.79	-1.41	1.67	-0.66
SO	YBADJ	S-5	-0.87	1.56	3.95	6.22	16.32	15.42
SO	YBADJ	S-5	-7.58	12.81	-11.93	7.57	4.87	13.40
SO	YBADJ	S-5	12.51	11.24	9.63	7.73	5.59	3.28
SO	YBADJ	S-5	0.87	-1.56	-3.95	-6.22	-16.32	-15.42
SO	YBADJ	S-5	7.58	-12.81	11.93	-7.57	-4.87	-13.40
SO	YBADJ	S-5	-12.51	-11.24	-9.63	-7.73	-5.59	-3.28

SO	BUILDHGT	S-6	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-6	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-6	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S-6	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-6	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-6	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S-6	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S-6	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S-6	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S-6	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S-6	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S-6	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S-6	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-6	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-6	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S-6	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-6	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-6	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S-6	-2.98	-5.20	-7.27	-9.11	-40.71	-44.27
SO	XBADJ	S-6	-46.49	-14.03	-51.03	-52.48	-52.34	-25.27
SO	XBADJ	S-6	-26.33	-26.58	-26.03	-24.69	-23.94	-27.83
SO	XBADJ	S-6	-30.87	-32.97	-34.07	-34.14	-33.17	-31.19
SO	XBADJ	S-6	-28.26	-25.21	-24.30	-22.66	-20.32	-17.37
SO	XBADJ	S-6	-13.89	-9.99	-5.79	-1.41	1.67	-0.66
SO	YBADJ	S-6	-0.87	1.56	3.95	6.22	16.32	15.42
SO	YBADJ	S-6	-7.58	12.81	-11.93	7.57	4.87	13.40
SO	YBADJ	S-6	12.51	11.24	9.63	7.73	5.59	3.28
SO	YBADJ	S-6	0.87	-1.56	-3.95	-6.22	-16.32	-15.42
SO	YBADJ	S-6	7.58	-12.81	11.93	-7.57	-4.87	-13.40
SO	YBADJ	S-6	-12.51	-11.24	-9.63	-7.73	-5.59	-3.28

SO	BUILDHGT	S-7	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-7	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-7	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S-7	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-7	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-7	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S-7	43.57	43.77	42.64	40.22	52.63	42.42

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SO BUILDWID S-7      74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-7      43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDWID S-7      43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-7      74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-7      43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDLEN S-7      33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-7      74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-7      40.22   36.58   31.82   26.10   22.27   28.49
SO BUILDLEN S-7      33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-7      74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-7      40.22   36.58   31.82   26.10   22.27   28.49
SO XBADJ    S-7       1.39    2.39    3.32    4.14  -25.19  -26.95
SO XBADJ    S-7     -27.90    5.27  -31.61  -33.54  -34.44   -8.96
SO XBADJ    S-7     -12.10   36.58  -17.20  -19.00  -21.57  -28.84
SO XBADJ    S-7     -35.24  -40.56  -44.66  -47.40  -48.69  -48.51
SO XBADJ    S-7     -46.85  -44.50  -43.72  -41.60  -38.22  -33.68
SO XBADJ    S-7     -28.12   36.58  -14.62   -7.10   -0.71    0.35
SO YBADJ    S-7     -19.82  -16.34  -12.36   -8.01    4.61    6.59
SO YBADJ    S-7     -13.27   10.43  -10.92   11.94   12.46   23.99
SO YBADJ    S-7      25.77   36.58   26.95   26.32   24.89   22.70
SO YBADJ    S-7      19.82   16.34   12.36    8.01   -4.61   -6.59
SO YBADJ    S-7      13.27  -10.43   10.92  -11.94  -12.46  -23.99
SO YBADJ    S-7     -25.77   36.58  -26.95  -26.32  -24.89  -22.70


SO BUILDHGT S-8      45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-8      39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-8      45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDHGT S-8      45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-8      39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-8      45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDWID S-8      42.93   42.93   42.64   40.22   52.63   42.42
SO BUILDWID S-8      74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-8      42.93   42.93   42.93   41.07   39.23   42.04
SO BUILDWID S-8      42.93   42.93   42.64   40.22   52.63   42.42
SO BUILDWID S-8      74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-8      42.93   42.93   42.93   41.07   39.23   42.04
SO BUILDLEN S-8      33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-8      74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-8      40.22   36.58   31.82   26.10   22.27   28.49
SO BUILDLEN S-8      33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-8      74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-8      40.22   36.58   31.82   26.10   22.27   28.49
SO XBADJ    S-8      33.85   38.17   10.66   12.79  -15.50  -16.52
SO XBADJ    S-8     -17.03   16.24  -20.88  -23.36  -25.14   -0.81
SO XBADJ    S-8      40.22   36.58   31.82  -17.47  -21.95  -31.12
SO XBADJ    S-8      33.85   38.17  -52.00  -56.04  -58.38  -58.95
SO XBADJ    S-8     -57.72  -55.47  -54.45  -51.78  -47.53  -41.84
SO XBADJ    S-8      40.22   36.58   31.82   -8.63   -0.32    2.63
SO YBADJ    S-8      33.85   38.17  -20.51  -14.76   -0.54    3.20
SO YBADJ    S-8     -14.79   10.81   -8.64   16.05   18.28   31.33
SO YBADJ    S-8      40.22   36.58   31.82   37.19   35.85   33.43
SO YBADJ    S-8      33.85   38.17   20.51   14.76    0.54   -3.20
SO YBADJ    S-8      14.79  -10.81    8.64  -16.05  -18.28  -31.33
SO YBADJ    S-8      40.22   36.58   31.82  -37.19  -35.85  -33.43


SO BUILDHGT S-9      45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-9      39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-9      45.72   41.45   41.45   41.45   41.45   41.45
SO BUILDHGT S-9      45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-9      39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-9      45.72   41.45   41.45   41.45   41.45   41.45
SO BUILDWID S-9      39.42   39.42   39.42   39.42   52.63   42.42
SO BUILDWID S-9      74.18   22.27   79.52   46.59   56.20   39.42
SO BUILDWID S-9      39.42   73.88   75.46   74.75   73.23   75.33
SO BUILDWID S-9      39.42   39.42   39.42   39.42   52.63   42.42
SO BUILDWID S-9      74.18   22.27   79.52   46.59   56.20   39.42
SO BUILDWID S-9      39.42   73.88   75.46   74.75   73.23   75.33
SO BUILDLEN S-9      33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-9      74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-9      40.22   52.63   42.42   30.92   23.46   35.56
SO BUILDLEN S-9      33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-9      74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-9      40.22   52.63   42.42   30.92   23.46   35.56
SO XBADJ    S-9      33.85   38.17   41.34   43.25   -5.81   -6.08
SO XBADJ    S-9      -6.16   27.20  -10.14  -13.19  -15.83   42.64
SO XBADJ    S-9      40.22  -20.62  -21.02  -20.77  -22.33  -33.40
SO XBADJ    S-9      33.85   38.17   41.34   43.25  -68.07  -69.38
SO XBADJ    S-9     -68.59  -66.44  -65.18  -61.95  -56.83   42.64
SO XBADJ    S-9      40.22  -32.00  -21.40  -10.15   -1.13   -2.16
SO YBADJ    S-9      33.85   38.17   41.34   43.25   -5.69   -0.19
SO YBADJ    S-9     -16.32   11.20   -6.36   20.16   24.09   42.64
SO YBADJ    S-9      40.22   31.13   31.65   31.21   29.82   27.52
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SO YBADJ    S-9       33.85   38.17   41.34   43.25    5.69    0.19
SO YBADJ    S-9       16.32  -11.20    6.36  -20.16  -24.09   42.64
SO YBADJ    S-9       40.22  -31.13  -31.65  -31.21  -29.82  -27.52

SO BUILDHGT S-10      45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-10      39.62   30.48   39.62   41.45   41.45   45.72
SO BUILDHGT S-10      45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDHGT S-10      45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-10      39.62   30.48   39.62   41.45   41.45   45.72
SO BUILDHGT S-10      45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDWID S-10      43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-10      74.18   32.64   79.52   46.59   56.20   41.34
SO BUILDWID S-10      43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDWID S-10      43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-10      74.18   32.64   79.52   46.59   56.20   41.34
SO BUILDWID S-10      43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDLEN S-10      33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-10      74.75   30.22   75.33   75.14   72.66   42.64
SO BUILDLEN S-10      40.22   36.58   31.82   26.10   22.27   28.49
SO BUILDLEN S-10      33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-10      74.75   30.22   75.33   75.14   72.66   42.64
SO BUILDLEN S-10      40.22   36.58   31.82   26.10   22.27   28.49
SO XBADJ    S-10      11.45    8.85    5.99    2.94  -30.23  -35.68
SO XBADJ    S-10     -40.05  -28.63  -49.41  -53.38  -55.73  -31.05
SO XBADJ    S-10     -34.32  -36.55  -37.66  -37.64  -37.81  -42.20
SO XBADJ    S-10     -45.30  -47.03  -47.33  -46.19  -43.65  -39.78
SO XBADJ    S-10     -34.70   -1.59  -25.92  -21.76  -16.93  -11.59
SO XBADJ    S-10      -5.90   -0.03    5.84   11.54   15.54   13.70
SO YBADJ    S-10       0.02    4.95    9.73   14.21   26.28   27.05
SO YBADJ    S-10       5.37  -25.08    2.44   22.01   18.93   26.66
SO YBADJ    S-10      24.56   21.72   18.22   14.17    9.68    4.90
SO YBADJ    S-10      -0.02   -4.95   -9.73  -14.21  -26.28  -27.05
SO YBADJ    S-10      -5.37   25.08   -2.44  -22.01  -18.93  -26.66
SO YBADJ    S-10     -24.56  -21.72  -18.22  -14.17   -9.68   -4.90

SO BUILDHGT S-11      16.76   16.76   16.76   16.76   16.76   16.76
SO BUILDHGT S-11      16.76   16.76   16.76   16.76   16.76   16.76
SO BUILDHGT S-11      16.76   16.76   16.76   16.76   16.76   16.76
SO BUILDHGT S-11      16.76   16.76   16.76   16.76   16.76   16.76
SO BUILDHGT S-11      16.76   16.76   16.76   16.76   16.76   16.76
SO BUILDHGT S-11      16.76   16.76   16.76   16.76   16.76   16.76
SO BUILDWID S-11     239.11  235.86  225.45  208.19  184.60  155.40
SO BUILDWID S-11     121.48   83.87   43.71   83.87  121.48  155.40
SO BUILDWID S-11     184.60  208.19  225.45  235.86  239.11  235.09
SO BUILDWID S-11     239.11  235.86  225.45  208.19  184.60  155.40
SO BUILDWID S-11     121.48   83.87   43.71   83.87  121.48  155.40
SO BUILDWID S-11     184.60  208.19  225.45  235.86  239.11  235.09
SO BUILDLEN S-11      83.87  121.48  155.40  184.60  208.19  225.45
SO BUILDLEN S-11     235.86  239.11  235.09  239.11  235.86  225.45
SO BUILDLEN S-11     208.19  184.60  155.40  121.48   83.87   43.71
SO BUILDLEN S-11      83.87  121.48  155.40  184.60  208.19  225.45
SO BUILDLEN S-11     235.86  239.11  235.09  239.11  235.86  225.45
SO BUILDLEN S-11     208.19  184.60  155.40  121.48   83.87   43.71
SO XBADJ    S-11     -78.21 -114.45 -147.21 -175.51 -198.46 -215.39
SO XBADJ    S-11    -225.78 -229.30 -225.86 -223.14 -213.65 -197.66
SO XBADJ    S-11    -175.67 -148.34 -116.50  -81.12  -43.28   -4.12
SO XBADJ    S-11      -5.66   -7.03   -8.18   -9.09   -9.72  -10.06
SO XBADJ    S-11     -10.09   -9.81   -9.23  -15.97  -22.22  -27.79
SO XBADJ    S-11     -32.52  -36.26  -38.90  -40.36  -40.59  -39.59
SO YBADJ    S-11     103.59   95.72   84.94   71.57   56.04   38.80
SO YBADJ    S-11      20.38    1.34  -17.73  -36.27  -53.71  -69.51
SO YBADJ    S-11     -83.21  -94.37 -102.67 -107.85 -109.75 -108.31
SO YBADJ    S-11    -103.59  -95.72  -84.94  -71.57  -56.04  -38.80
SO YBADJ    S-11     -20.38   -1.34   17.73   36.27   53.71   69.51
SO YBADJ    S-11      83.21   94.37  102.67  107.85  109.75  108.31

SO BUILDHGT S-12      45.72   45.72   45.72   45.72   39.62   39.62
SO BUILDHGT S-12      39.62   30.48   28.55   28.55   28.55   28.55
SO BUILDHGT S-12      28.55   28.55   41.45   41.45   41.45   45.72
SO BUILDHGT S-12      45.72   45.72   45.72   45.72   39.62   39.62
SO BUILDHGT S-12      39.62   30.48   12.19   12.19    0.00    0.00
SO BUILDHGT S-12       0.00   28.55   41.45   41.45   41.45   45.72
SO BUILDWID S-12      43.57   43.77   42.64   40.22   80.94   78.76
SO BUILDWID S-12      74.18   32.64   55.17   57.98   59.03   59.79
SO BUILDWID S-12      62.36   63.03   75.46   74.75   73.23   42.04
SO BUILDWID S-12      43.57   43.77   42.64   40.22   80.94   78.76
SO BUILDWID S-12      74.18   32.64   65.31   66.35    0.00    0.00
SO BUILDWID S-12       0.00   63.03   75.46   74.75   73.23   42.04
SO BUILDLEN S-12      33.85   38.17   41.34   43.25   84.24   77.21
SO BUILDLEN S-12      74.75   30.22   47.24   56.11   63.26   68.50
SO BUILDLEN S-12      71.65   72.63   42.42   30.92   23.46   28.49
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SO	BUILDLEN	S-12	33.85	38.17	41.34	43.25	84.24	77.21
SO	BUILDLEN	S-12	74.75	30.22	37.26	46.22	0.00	0.00
SO	BUILDLEN	S-12	0.00	72.63	42.42	30.92	23.46	28.49
SO	XBADJ	S-12	77.39	76.70	73.68	68.42	20.69	17.79
SO	XBADJ	S-12	7.43	9.66	-115.21	-125.21	-131.41	-133.62
SO	XBADJ	S-12	-131.77	-125.92	-88.01	-91.19	-94.04	-104.23
SO	XBADJ	S-12	-111.24	-114.88	-115.02	-111.67	-104.93	-95.00
SO	XBADJ	S-12	-82.18	-39.89	-71.84	-70.89	0.00	0.00
SO	XBADJ	S-12	0.00	53.29	45.59	60.27	70.59	75.73
SO	YBADJ	S-12	-16.73	-0.10	16.54	32.67	41.68	48.63
SO	YBADJ	S-12	54.10	31.15	40.12	25.88	10.86	-5.24
SO	YBADJ	S-12	-23.00	-40.06	57.27	44.80	30.98	32.85
SO	YBADJ	S-12	16.73	0.10	-16.54	-32.67	-41.68	-48.63
SO	YBADJ	S-12	-54.10	-31.15	-26.64	-35.48	0.00	0.00
SO	YBADJ	S-12	0.00	40.06	-57.27	-44.80	-30.98	-32.85

SO	BUILDHGT	S-13	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-13	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-13	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S-13	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-13	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-13	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S-13	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S-13	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S-13	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S-13	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S-13	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S-13	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S-13	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-13	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-13	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S-13	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-13	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-13	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S-13	-15.34	-12.80	-9.87	-6.64	-33.24	-32.03
SO	XBADJ	S-13	-29.84	6.52	-27.21	-26.12	-24.23	3.73
SO	XBADJ	S-13	2.68	1.56	0.38	-0.80	-3.31	-11.08
SO	XBADJ	S-13	-18.51	-25.38	-31.47	-36.62	-40.64	-43.44
SO	XBADJ	S-13	-44.91	-45.75	-48.12	-49.02	-48.43	-46.37
SO	XBADJ	S-13	-42.90	-38.13	-32.20	-25.30	-18.96	-17.42
SO	YBADJ	S-13	-27.24	-26.55	-25.05	-22.79	-11.82	-10.99
SO	YBADJ	S-13	-31.46	-7.83	-28.68	-4.79	-2.72	10.80
SO	YBADJ	S-13	14.99	18.72	21.88	24.38	26.13	27.10
SO	YBADJ	S-13	27.24	26.55	25.05	22.79	11.82	10.99
SO	YBADJ	S-13	31.46	7.83	28.68	4.79	2.72	-10.80
SO	YBADJ	S-13	-14.99	-18.72	-21.88	-24.38	-26.13	-27.10

SO	BUILDHGT	S-14	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-14	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-14	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S-14	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-14	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-14	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S-14	42.64	42.64	42.64	40.22	52.63	42.42
SO	BUILDWID	S-14	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S-14	42.64	42.64	42.64	41.07	39.23	42.04
SO	BUILDWID	S-14	42.64	42.64	42.64	40.22	52.63	42.42
SO	BUILDWID	S-14	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S-14	42.64	42.64	42.64	41.07	39.23	42.04
SO	BUILDLEN	S-14	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-14	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-14	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S-14	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-14	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-14	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S-14	33.85	38.17	-2.73	1.77	-23.82	-21.88
SO	XBADJ	S-14	-19.27	17.18	-16.78	-16.23	-15.18	11.66
SO	XBADJ	S-14	40.22	36.58	31.82	0.68	-3.68	-13.30
SO	XBADJ	S-14	33.85	38.17	-38.61	-45.02	-50.07	-53.59
SO	XBADJ	S-14	-55.48	-56.41	-58.55	-58.91	-57.48	-54.30
SO	XBADJ	S-14	40.22	36.58	31.82	-26.78	-18.59	-15.20
SO	YBADJ	S-14	33.85	38.17	-32.98	-29.36	-16.83	-14.29
SO	YBADJ	S-14	-32.95	-7.45	-26.46	-0.79	2.93	17.94
SO	YBADJ	S-14	40.22	36.58	31.82	34.94	36.80	37.53
SO	YBADJ	S-14	33.85	38.17	32.98	29.36	16.83	14.29
SO	YBADJ	S-14	32.95	7.45	26.46	0.79	-2.93	-17.94
SO	YBADJ	S-14	40.22	36.58	31.82	-34.94	-36.80	-37.53

SO	BUILDHGT	S-15	41.45	41.45	41.45	41.45	41.45	41.45
SO	BUILDHGT	S-15	39.62	45.72	39.62	41.45	41.45	41.45
SO	BUILDHGT	S-15	41.45	41.45	41.45	41.45	41.45	41.45

SO	BUILDHGT	S-15	41.45	41.45	41.45	41.45	41.45	41.45
SO	BUILDHGT	S-15	39.62	45.72	39.62	41.45	41.45	41.45
SO	BUILDHGT	S-15	41.45	41.45	41.45	41.45	41.45	41.45
SO	BUILDWID	S-15	75.14	72.66	41.51	41.51	52.63	42.42
SO	BUILDWID	S-15	74.18	22.27	79.52	46.59	56.20	41.51
SO	BUILDWID	S-15	41.51	41.51	75.46	74.75	73.23	75.33
SO	BUILDWID	S-15	75.14	72.66	41.51	41.51	52.63	42.42
SO	BUILDWID	S-15	74.18	22.27	79.52	46.59	56.20	41.51
SO	BUILDWID	S-15	41.51	41.51	75.46	74.75	73.23	75.33
SO	BUILDLEN	S-15	46.59	56.20	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-15	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-15	40.22	36.58	42.42	30.92	23.46	35.56
SO	BUILDLEN	S-15	46.59	56.20	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-15	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-15	40.22	36.58	42.42	30.92	23.46	35.56
SO	XBADJ	S-15	-19.52	-18.71	41.34	43.25	-13.05	-10.28
SO	XBADJ	S-15	-7.20	29.36	-4.85	-4.92	-4.85	42.64
SO	XBADJ	S-15	40.22	36.58	-3.15	-2.45	-4.11	-15.83
SO	XBADJ	S-15	-27.07	-37.49	41.34	43.25	-60.83	-65.18
SO	XBADJ	S-15	-67.55	-68.60	-70.48	-70.21	-67.82	42.64
SO	XBADJ	S-15	40.22	36.58	-39.27	-28.47	-19.35	-19.73
SO	YBADJ	S-15	-32.64	-31.48	41.34	43.25	-22.55	-18.06
SO	YBADJ	S-15	-34.64	-7.03	-23.93	3.78	9.39	42.64
SO	YBADJ	S-15	40.22	36.58	27.45	30.17	31.98	32.81
SO	YBADJ	S-15	32.64	31.49	41.34	43.25	22.55	18.06
SO	YBADJ	S-15	34.64	7.03	23.93	-3.78	-9.39	42.64
SO	YBADJ	S-15	40.22	36.58	-27.45	-30.17	-31.98	-32.81

SO	BUILDHGT	S-16	45.72	45.72	45.72	39.62	39.62	39.62
SO	BUILDHGT	S-16	39.62	30.48	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-16	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S-16	45.72	45.72	45.72	39.62	39.62	39.62
SO	BUILDHGT	S-16	39.62	30.48	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-16	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S-16	43.57	43.77	42.64	80.66	80.94	78.76
SO	BUILDWID	S-16	74.18	32.64	79.52	46.59	56.20	41.34
SO	BUILDWID	S-16	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S-16	43.57	43.77	42.64	80.66	80.94	78.76
SO	BUILDWID	S-16	74.18	32.64	79.52	46.59	56.20	41.34
SO	BUILDWID	S-16	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S-16	33.85	38.17	41.34	88.71	84.24	77.21
SO	BUILDLEN	S-16	74.75	30.22	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-16	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S-16	33.85	38.17	41.34	88.71	84.24	77.21
SO	BUILDLEN	S-16	74.75	30.22	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-16	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S-16	29.19	21.94	14.02	-39.78	-43.23	-45.37
SO	XBADJ	S-16	-53.05	-46.29	-71.19	-78.63	-83.68	-60.84
SO	XBADJ	S-16	-65.06	-67.29	-67.48	-65.62	-63.12	-64.05
SO	XBADJ	S-16	-63.04	-60.11	-55.36	-48.93	-41.01	-31.84
SO	XBADJ	S-16	-21.70	16.07	-4.14	3.49	11.01	18.20
SO	XBADJ	S-16	24.84	30.72	35.66	39.53	40.84	35.56
SO	YBADJ	S-16	25.27	32.90	39.52	45.74	42.87	38.70
SO	YBADJ	S-16	33.36	0.22	24.29	39.75	32.01	34.69
SO	YBADJ	S-16	27.30	19.08	10.28	1.17	-7.98	-16.88
SO	YBADJ	S-16	-25.27	-32.90	-39.52	-45.74	-42.87	-38.70
SO	YBADJ	S-16	-33.36	-0.22	-24.29	-39.75	-32.01	-34.69
SO	YBADJ	S-16	-27.30	-19.08	-10.28	-1.17	7.98	16.88

```
'BPIP data for US Sugar Corp wrt Boiler 4 stack -3/24/03'
'ST'
'FEET'  0.3048
'UTMN' 0
24
'ElectEquip' 1 0.0
 100
 0.31      -344.07
624.57     -317.07
718.08     -297.20
723.82     -324.19
'Supportstrt' 1  0.0
4 130
608.73     -242.54
624.57     -317.07
718.08     -297.20
702.24     -222.66
'Dryer Area' 1  0.0
4 100
608.73     -242.54
600.62     -204.39
694.13     -184.51
702.24     -222.66
'ScreenigDistTowr' 1  0.0
4 150
642.79      -82.46
657.07     -149.66
780.71     -123.38
766.43      -56.18
'SpecPackArea' 1 0.0
4 40
717.45     -220.65
759.37     -417.85
839.68     -400.78
797.76     -203.58
'Packing Facil' 1 0.0
4 40
824.64     -330.06
766.43      -56.18
830.01      -42.66
888.22     -316.54
'Sugar Silos' 1  0.0
 136
 2.79       -82.46
657.07     -149.66
547.91     -172.86
533.57     -105.37
'pel. whse'  1  0.0
4 46.0
-682  212
-155  212
-155  107
-682  107
'WDA'  1    0.0
4  51.0
 -85  153
 -32  153
 -32   98
 -85   98
'S&Safety' 1   0.0
4  34.8
 -85   15
 -32   15
 -32   98
 -85   98
'Blr 4 Bld' 1  0.0
4 87.5
 -32  -13
  34  -13
  34  -91
 -32  -91
'Blr 5&6 Bld'  1  0.0
4 56.0
  34  -95
 100  -95
 100   23
  34   23
'Blr 1&2 Bld'  1  0.0
  67.25
  0   15
 215   15
 215  -88
 100  -88
'pwrhse'  1    0.0
```

```
8  34.0
 215  -69
 215  -23
 334  -23
 334  -79
 295  -79
 295  -88
 256  -88
 256  -69
'w-hose'     1    0.0
6 37.0
 -97 -119
  56 -119
  56 -176
   6 -176
   6 -190
 -97 -190
'shop'    1    0.0
6 39
-241 -276
 -57 -276
 -57 -235
  68 -235
  68 -341
-241 -341
'B Mill'    1  0.0
4 68.0
  78 -147
 159 -147
 159 -372
  78 -372
'A Mill'    1  0.0
4  69.0
 159 -372
 159 -129
 226 -129
 226 -372
'Boiling Hse' 1  0.0
6 93.67
 226 -313
 226 -176
 381 -176
 381 -357
 312 -357
 312 -313
'Blr 7 ESP'  1  0.0
4 87.5
-123   15
-123   70
 -90   70
 -90   15
'Blr 7 bld'   1  0.0
4 83.0
-133   15
-133  -91
 -32  -91
 -32   15
'SugarWhs#3' 1  0.0
4 55.0
1304.0 228.4
1304.0  85.0
2075.3  85.0
2075.3 228.4
'Blr 8 ESP'  1  0.0
4 69.0
-282.0  130.0
-263.0   63.0
-218.0   75.0
-237.0  142.0
'Blr 8 bld'  1  0.0
4 98.0
-260.8    8.0
-260.8  -84.0
-202.0  -84.0
-202.0    8.0
24
'BLR1'  0.0   165.0    185.0   -5.0
'BLR2'  0.0   165.0    143.0   -5.0
'BLR3'  0.0   213.0     95.0   18.0
'BLR4'  0.0   150.0      0.0    0.0
'BLR5'  0.0    65.0     78.0   25.0
'BLR6'  0.0    65.0     40.0   25.0
'BLR7'  0.0   225.0   -106.5   65.0
'BLR8'  0.0   199.0   -269.0  167.3
```

```
 'S-1'  0.0    65.0     664.79     -155.17
 'S-2'  0.0    65.0     700.98     -147.48
 'S-3'  0.0    65.0     700.98     -147.48
 'S-4'  0.0    60.0     774.34     -131.89
 'S-5'  0.0    72.0     700.98     -147.48
 'S-6'  0.0    72.0     700.98     -147.48
 'S-7'  0.0   130.0     637.28     -150.80
 'S-8'  0.0   130.0     602.07     -158.28
 'S-9'  0.0   130.0     566.85     -165.77
 'S-10'  0.0   75.0     695.66     -194.62
 'S-11'  0.0   10.0    2045.01      214.88
 'S-12'  0.0   30.0     603.97     -398.13
 'S-13'  0.0  130.0     622.85      -92.52
 'S-14'  0.0  130.0     588.61      -99.80
 'S-15'  0.0  130.0     549.49     -108.12
 'S-16'  0.0   55.0     767.14     -266.32
0
```

BPIP (Dated: 95086)
BPIP data for US Sugar Corp wrt Boiler 4 stack -3/24/03

==========================
BPIP PROCESSING INFORMATION:
==========================

The ST flag has been set for processing for an ISCST2 run.

Inputs entered in FEET will be converted to meters using a conversion factor of 0.3048. Output will be in meters.

UTMP is set to UTMN. The input is assumed to be in a local X-Y coordinate system as opposed to a UTM coordinate system. True North is in the positive Y direction.

Plant north is set to 0.00 degrees with respect to True North.

BPIP data for US Sugar Corp wrt Boiler 4 stack -3/24/03

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
BLR1	50.29	0.00	103.63	103.63
BLR2	50.29	0.00	103.63	103.63
BLR3	64.92	0.00	103.63	103.63
BLR4	45.72	0.00	103.63	103.63
BLR5	19.81	0.00	103.63	103.63
BLR6	19.81	0.00	103.63	103.63
BLR7	68.58	0.00	103.63	103.63
BLR8	60.66	0.00	70.93	70.93
S-1	19.81	0.00	111.50	111.50
S-2	19.81	0.00	111.50	111.50
S-3	19.81	0.00	111.50	111.50
S-4	18.29	0.00	111.50	111.50
S-5	21.95	0.00	111.50	111.50
S-6	21.95	0.00	111.50	111.50
S-7	39.62	0.00	111.49	111.49
S-8	39.62	0.00	110.12	110.12
S-9	39.62	0.00	104.85	104.85
S-10	22.86	0.00	111.50	111.50
S-11	3.05	0.00	41.91	65.00
S-12	9.14	0.00	111.49	111.49
S-13	39.62	0.00	111.50	111.50
S-14	39.62	0.00	109.69	109.69
S-15	39.62	0.00	103.63	103.63
S-16	16.76	0.00	111.50	111.50

* 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.

BPIP (Dated: 95086)
DATE : 0/ 0/ 0
TIME : 0: 0: 0

BPIP data for US Sugar Corp wrt Boiler 4 stack -3/24/03

BPIP output is in meters

SO BUILDHGT	BLR1	21.03	21.03	20.73	20.73	26.67	26.67
SO BUILDHGT	BLR1	26.67	29.87	29.87	26.67	26.67	20.50

```
SO BUILDHGT BLR1        28.55   28.55   28.55   28.55   28.55   28.55
SO BUILDHGT BLR1        21.03   21.03   20.73   20.73   26.67   26.67
SO BUILDHGT BLR1        26.67   26.67   39.62   41.45   41.45   41.45
SO BUILDHGT BLR1        39.62   28.55   28.55   28.55   28.55   28.55
SO BUILDWID BLR1        32.97   44.52   55.67   63.00   31.14   30.65
SO BUILDWID BLR1        29.22   30.73   28.04   26.91   40.07   44.71
SO BUILDWID BLR1        62.36   63.03   61.79   58.68   53.78   47.24
SO BUILDWID BLR1        32.97   44.52   55.67   63.00   31.14   30.65
SO BUILDWID BLR1        29.22   26.91   79.52   46.59   56.20   64.10
SO BUILDWID BLR1        88.71   63.03   61.79   58.68   53.78   47.24
SO BUILDLEN BLR1        76.49   76.58   71.74   68.40   30.69   29.31
SO BUILDLEN BLR1        27.03   22.52   17.92   23.94   61.75   46.05
SO BUILDLEN BLR1        71.65   72.63   71.40   68.00   62.53   55.17
SO BUILDLEN BLR1        76.49   76.58   71.74   68.40   30.69   29.31
SO BUILDLEN BLR1        27.03   23.94   75.33   75.14   72.66   67.98
SO BUILDLEN BLR1        80.66   72.63   71.40   68.00   62.53   55.17
SO XBADJ    BLR1      -111.54 -107.83 -113.18 -106.65  -67.52  -70.39
SO XBADJ    BLR1       -71.12 -138.00 -135.88  -64.71  -96.04  -25.48
SO XBADJ    BLR1        43.08   47.96   51.39   53.25   53.50   52.12
SO XBADJ    BLR1        35.05   31.24   41.45   38.25   36.82   41.08
SO XBADJ    BLR1        44.08   45.75 -181.57 -185.08 -182.96 -175.29
SO XBADJ    BLR1      -181.72 -120.59 -122.79 -121.25 -116.03 -107.29
SO YBADJ    BLR1       -15.25  -27.74  -21.23  -34.33   25.08   15.64
SO YBADJ    BLR1         5.72   12.13  -10.06  -23.85  -27.22  -12.51
SO YBADJ    BLR1       -32.70  -19.25   -5.22    8.97   22.89   36.12
SO YBADJ    BLR1        15.25   27.74   21.23   34.33  -25.08  -15.64
SO YBADJ    BLR1        -5.72    4.37   55.36    7.88  -17.85  -43.05
SO YBADJ    BLR1       -57.61   19.25    5.22   -8.97  -22.89  -36.12


SO BUILDHGT BLR2        20.73   20.73   20.73   26.67   26.67   26.67
SO BUILDHGT BLR2        29.87   29.87   29.87   29.87   26.67   28.55
SO BUILDHGT BLR2        28.55   28.55   21.03   21.03   28.55   21.03
SO BUILDHGT BLR2        20.73   20.73   20.73   26.67   26.67   26.67
SO BUILDHGT BLR2        26.67   26.67   39.62   41.45   41.45   41.45
SO BUILDHGT BLR2        28.55   28.55   28.55   28.55   28.55   21.03
SO BUILDWID BLR2        36.22   46.66   55.67   30.69   31.14   30.65
SO BUILDWID BLR2        32.48   30.73   28.04   30.73   40.07   59.79
SO BUILDWID BLR2        62.36   63.03   54.72   44.52   53.78   67.67
SO BUILDWID BLR2       102.07   46.66   55.67   30.69   31.14   30.65
SO BUILDWID BLR2        29.22   26.91   79.52   46.59   56.20   64.10
SO BUILDWID BLR2        62.36   63.03   61.79   58.68   53.78   67.67
SO BUILDLEN BLR2        71.83   72.89   71.74   31.14   30.69   29.31
SO BUILDLEN BLR2        26.43   22.52   17.92   22.52   61.75   68.50
SO BUILDLEN BLR2        71.65   72.63   74.35   76.58   62.53   74.07
SO BUILDLEN BLR2        80.77   72.89   71.74   31.14   30.69   29.31
SO BUILDLEN BLR2        27.03   23.94   75.33   75.14   72.66   67.98
SO BUILDLEN BLR2        71.65   72.63   71.40   68.00   62.53   74.07
SO XBADJ    BLR2      -113.60 -111.89 -106.78  -54.37  -57.71  -59.30
SO XBADJ    BLR2      -123.89 -125.39 -123.08 -121.90  -84.01   47.97
SO XBADJ    BLR2        52.88   56.19   35.17   37.18   55.72   37.80
SO XBADJ    BLR2        32.83   39.00   35.04   23.22   27.02   29.99
SO XBADJ    BLR2        32.05   33.14 -194.37 -197.69 -194.99 -186.37
SO XBADJ    BLR2      -124.54 -128.82 -129.19 -125.63 -118.26 -111.86
SO YBADJ    BLR2        -6.12  -19.51  -32.32   23.95   16.85    9.23
SO YBADJ    BLR2        29.58    9.91  -10.06  -29.72  -22.84  -38.76
SO YBADJ    BLR2       -24.48   -9.45  -24.35  -11.42   35.50   38.71
SO YBADJ    BLR2        39.04   19.51   32.32  -23.95  -16.85   -9.23
SO YBADJ    BLR2        -1.34    6.59   55.36    5.66  -22.23  -49.45
SO YBADJ    BLR2        24.48    9.45   -5.87  -21.00  -35.50  -38.71


SO BUILDHGT BLR3        26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR3        29.87   29.87   29.87   26.67   26.67   21.03
SO BUILDHGT BLR3        20.73   20.73   20.73   20.50   20.50   20.50
SO BUILDHGT BLR3        26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR3        26.67   26.67   26.67   41.45   41.45   41.45
SO BUILDHGT BLR3        28.55   28.55   28.55   28.55   21.03   20.73
SO BUILDWID BLR3        55.65   27.03   29.31   30.69   31.14   30.65
SO BUILDWID BLR3        32.48   30.73   28.04   26.91   40.07   85.57
SO BUILDWID BLR3       105.13  109.15   55.67   43.68   39.97   35.05
SO BUILDWID BLR3        55.65   27.03   29.31   30.69   31.14   30.65
SO BUILDWID BLR3        29.22   26.91   49.07   46.59   56.20   64.10
SO BUILDWID BLR3        62.36   63.03   61.79   58.68   32.97   24.69
SO BUILDLEN BLR3        45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR3        26.43   22.52   17.92   23.94   61.75   93.35
SO BUILDLEN BLR3       111.89  108.40   71.74   41.49   37.00   31.39
SO BUILDLEN BLR3        45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR3        27.03   23.94   47.85   75.14   72.66   67.98
SO BUILDLEN BLR3        71.65   72.63   71.40   68.00   76.49   68.58
SO XBADJ    BLR3       -39.44  -44.46  -48.13  -50.33  -51.01  -50.14
SO XBADJ    BLR3      -112.54 -112.20 -108.45  -36.48  -67.86   39.30
SO XBADJ    BLR3        28.36   35.20   40.96    1.38    1.17    0.91
SO XBADJ    BLR3        -5.82   15.24   17.48   19.19   20.32   20.83
```

SO	XBADJ	BLR3	20.70	19.95	18.59	-213.31	-211.14	-202.55
SO	XBADJ	BLR3	-140.25	-143.59	-142.57	-137.22	-124.00	-118.87
SO	YBADJ	BLR3	40.37	19.63	14.14	8.23	2.07	-4.15
SO	YBADJ	BLR3	17.99	0.47	-17.07	-25.99	-24.43	-50.41
SO	YBADJ	BLR3	-41.83	-25.80	-36.09	12.22	15.88	19.05
SO	YBADJ	BLR3	-40.37	-19.63	-14.14	-8.23	-2.07	4.15
SO	YBADJ	BLR3	10.25	16.04	8.69	10.02	-20.65	-50.69
SO	YBADJ	BLR3	20.44	2.75	-15.03	-32.35	-15.06	-7.16
SO	BUILDHGT	BLR4	26.67	26.67	26.67	26.67	26.67	29.87
SO	BUILDHGT	BLR4	29.87	29.87	29.87	29.87	26.67	26.67
SO	BUILDHGT	BLR4	26.67	26.67	26.67	26.67	26.67	26.67
SO	BUILDHGT	BLR4	26.67	26.67	26.67	26.67	26.67	29.87
SO	BUILDHGT	BLR4	29.87	26.67	39.62	41.45	41.45	39.62
SO	BUILDHGT	BLR4	28.55	28.55	28.55	26.67	26.67	26.67
SO	BUILDWID	BLR4	55.65	27.03	29.31	30.69	31.14	33.25
SO	BUILDWID	BLR4	32.48	30.73	28.04	30.73	29.22	30.65
SO	BUILDWID	BLR4	31.14	30.69	29.31	27.03	45.64	47.85
SO	BUILDWID	BLR4	55.65	27.03	29.31	30.69	31.14	33.25
SO	BUILDWID	BLR4	32.48	26.91	79.52	46.59	56.20	90.49
SO	BUILDWID	BLR4	62.36	63.03	61.79	27.03	45.64	47.85
SO	BUILDLEN	BLR4	45.26	29.22	30.65	31.14	30.69	29.54
SO	BUILDLEN	BLR4	26.43	22.52	17.92	22.52	27.03	29.31
SO	BUILDLEN	BLR4	30.69	31.14	30.65	29.22	56.64	49.07
SO	BUILDLEN	BLR4	45.26	29.22	30.65	31.14	30.69	29.54
SO	BUILDLEN	BLR4	26.43	23.94	75.33	75.14	72.66	77.94
SO	BUILDLEN	BLR4	71.65	72.63	71.40	29.22	56.64	49.07
SO	XBADJ	BLR4	-29.01	-29.40	-28.90	-27.52	-25.30	-81.64
SO	XBADJ	BLR4	-83.45	-82.73	-79.49	-78.71	-7.81	-6.47
SO	XBADJ	BLR4	-4.92	-3.23	-1.45	0.39	-27.52	-21.34
SO	XBADJ	BLR4	-16.25	0.18	-1.75	-3.63	-5.39	52.10
SO	XBADJ	BLR4	57.02	-9.52	-237.96	-240.88	-236.47	-234.84
SO	XBADJ	BLR4	-158.90	-158.00	-152.30	-29.61	-29.11	-27.74
SO	YBADJ	BLR4	12.80	-5.71	-8.19	-10.42	-12.34	25.23
SO	YBADJ	BLR4	13.24	0.84	-11.58	-23.65	-14.79	-13.57
SO	YBADJ	BLR4	-11.95	-9.95	-7.66	-5.13	-13.30	-13.56
SO	YBADJ	BLR4	-12.80	5.71	8.19	10.42	12.34	-25.23
SO	YBADJ	BLR4	-13.24	15.66	56.88	-0.41	-35.71	-56.73
SO	YBADJ	BLR4	-2.37	-22.96	-42.85	5.13	13.30	13.56
SO	BUILDHGT	BLR5	26.67	26.67	26.67	26.67	26.67	29.87
SO	BUILDHGT	BLR5	29.87	29.87	29.87	26.67	26.67	20.73
SO	BUILDHGT	BLR5	20.73	20.73	20.50	20.50	20.50	20.50
SO	BUILDHGT	BLR5	26.67	26.67	26.67	26.67	26.67	26.67
SO	BUILDHGT	BLR5	26.67	26.67	26.67	41.45	41.45	41.45
SO	BUILDHGT	BLR5	28.55	28.55	28.55	28.55	21.03	20.73
SO	BUILDWID	BLR5	55.65	27.03	29.31	30.69	31.14	33.25
SO	BUILDWID	BLR5	32.48	30.73	28.04	45.26	40.07	97.91
SO	BUILDWID	BLR5	105.13	109.15	46.05	43.68	39.97	35.05
SO	BUILDWID	BLR5	55.65	27.03	29.31	30.69	31.14	30.65
SO	BUILDWID	BLR5	29.22	26.91	46.94	46.59	56.20	64.10
SO	BUILDWID	BLR5	62.36	63.03	61.79	58.68	32.97	24.69
SO	BUILDLEN	BLR5	45.26	29.22	30.65	31.14	30.69	29.54
SO	BUILDLEN	BLR5	26.43	22.52	17.92	55.65	61.75	111.99
SO	BUILDLEN	BLR5	111.89	108.40	44.71	41.49	37.00	31.39
SO	BUILDLEN	BLR5	45.26	29.22	30.65	31.14	30.69	29.31
SO	BUILDLEN	BLR5	27.03	23.94	52.06	75.14	72.66	67.98
SO	BUILDLEN	BLR5	71.65	72.63	71.40	68.00	76.49	68.58
SO	XBADJ	BLR5	-40.64	-44.69	-47.38	-48.64	-48.41	-106.04
SO	XBADJ	BLR5	-108.40	-107.47	-103.27	-62.72	-62.26	26.21
SO	XBADJ	BLR5	33.70	40.16	5.99	5.16	4.17	3.05
SO	XBADJ	BLR5	-4.62	15.47	16.74	17.49	17.72	17.41
SO	XBADJ	BLR5	16.56	15.22	51.21	-218.79	-216.74	-208.10
SO	XBADJ	BLR5	-145.59	-148.56	-147.01	-141.00	-127.00	-121.01
SO	YBADJ	BLR5	34.89	14.03	8.59	2.89	-2.89	30.52
SO	YBADJ	BLR5	14.21	-2.53	-19.20	-18.01	-24.66	-55.84
SO	YBADJ	BLR5	-40.13	-23.21	11.61	16.36	20.61	24.23
SO	YBADJ	BLR5	-34.89	-14.03	-8.59	-2.89	2.89	8.59
SO	YBADJ	BLR5	14.03	19.04	9.75	11.23	-20.42	-51.44
SO	YBADJ	BLR5	18.75	0.15	-18.45	-36.49	-19.79	-12.34
SO	BUILDHGT	BLR6	26.67	26.67	26.67	26.67	26.67	29.87
SO	BUILDHGT	BLR6	29.87	29.87	29.87	26.67	26.67	26.67
SO	BUILDHGT	BLR6	26.67	26.67	26.67	26.67	26.67	26.67
SO	BUILDHGT	BLR6	26.67	26.67	26.67	26.67	26.67	26.67
SO	BUILDHGT	BLR6	26.67	26.67	26.67	41.45	41.45	39.62
SO	BUILDHGT	BLR6	28.55	28.55	28.55	26.67	26.67	26.67
SO	BUILDWID	BLR6	55.65	27.03	29.31	30.69	31.14	33.25
SO	BUILDWID	BLR6	32.48	30.73	28.04	26.91	29.22	30.65
SO	BUILDWID	BLR6	31.14	30.69	29.31	27.03	45.64	47.85
SO	BUILDWID	BLR6	55.65	27.03	29.31	30.69	31.14	30.65

SO	BUILDWID	BLR6	29.22	26.91	46.94	46.59	56.20	90.49
SO	BUILDWID	BLR6	62.36	63.03	61.79	27.03	45.64	47.85
SO	BUILDLEN	BLR6	45.26	29.22	30.65	31.14	30.69	29.54
SO	BUILDLEN	BLR6	26.43	22.52	17.92	23.94	27.03	29.31
SO	BUILDLEN	BLR6	30.69	31.14	30.65	29.22	56.64	49.07
SO	BUILDLEN	BLR6	45.26	29.22	30.65	31.14	30.69	29.31
SO	BUILDLEN	BLR6	27.03	23.94	52.06	75.14	72.66	77.94
SO	BUILDLEN	BLR6	71.65	72.63	71.40	29.22	56.64	49.07
SO	XBADJ	BLR6	-38.63	-40.73	-41.59	-41.19	-39.54	-96.01
SO	XBADJ	BLR6	-97.52	-96.06	-91.68	-19.60	-16.66	-13.21
SO	XBADJ	BLR6	-9.37	-5.23	-0.94	3.38	-22.13	-13.72
SO	XBADJ	BLR6	-6.63	11.51	10.95	10.05	8.85	7.37
SO	XBADJ	BLR6	5.68	3.81	39.62	-230.19	-227.62	-228.09
SO	XBADJ	BLR6	-154.46	-156.00	-152.80	-32.60	-34.50	-35.36
SO	YBADJ	BLR6	23.49	3.14	-1.44	-5.98	-10.34	24.73
SO	YBADJ	BLR6	10.25	-4.55	-19.20	-25.18	-26.12	-26.27
SO	YBADJ	BLR6	-25.62	-24.19	-22.03	-19.20	-26.63	-25.76
SO	YBADJ	BLR6	-23.49	-3.14	1.44	5.98	10.34	14.38
SO	YBADJ	BLR6	17.99	21.05	9.75	9.21	-24.38	-44.04
SO	YBADJ	BLR6	11.30	-8.72	-28.48	19.20	26.63	25.76

SO	BUILDHGT	BLR7	26.67	29.87	29.87	29.87	29.87	29.87
SO	BUILDHGT	BLR7	29.87	29.87	26.67	26.67	26.67	26.67
SO	BUILDHGT	BLR7	26.67	26.67	26.67	26.67	26.67	26.67
SO	BUILDHGT	BLR7	26.67	29.87	29.87	29.87	29.87	29.87
SO	BUILDHGT	BLR7	29.87	29.87	26.67	41.45	41.45	28.55
SO	BUILDHGT	BLR7	28.55	28.55	26.67	26.67	26.67	26.67
SO	BUILDWID	BLR7	55.65	26.43	29.54	31.75	33.00	33.25
SO	BUILDWID	BLR7	32.48	30.73	46.94	45.26	29.22	30.65
SO	BUILDWID	BLR7	31.14	30.69	29.31	27.03	45.64	47.85
SO	BUILDWID	BLR7	55.65	26.43	29.54	31.75	33.00	33.25
SO	BUILDWID	BLR7	32.48	30.73	46.94	46.59	56.20	59.79
SO	BUILDWID	BLR7	62.36	63.03	29.31	27.03	45.64	47.85
SO	BUILDLEN	BLR7	45.26	32.48	33.25	33.00	31.75	29.54
SO	BUILDLEN	BLR7	26.43	22.52	52.06	55.65	27.03	29.31
SO	BUILDLEN	BLR7	30.69	31.14	30.65	29.22	56.64	49.07
SO	BUILDLEN	BLR7	45.26	32.48	33.25	33.00	31.75	29.54
SO	BUILDLEN	BLR7	26.43	22.52	52.06	75.14	72.66	68.50
SO	BUILDLEN	BLR7	71.65	72.63	30.65	29.22	56.64	49.07
SO	XBADJ	BLR7	-42.88	-58.76	-62.85	-65.02	-65.22	-63.44
SO	XBADJ	BLR7	-59.73	-54.20	-47.03	-5.22	29.47	31.55
SO	XBADJ	BLR7	32.68	32.81	31.94	30.11	-2.37	-1.52
SO	XBADJ	BLR7	-2.37	26.28	29.60	32.02	33.47	33.90
SO	XBADJ	BLR7	33.30	31.68	-5.03	-276.28	-273.75	-193.00
SO	XBADJ	BLR7	-196.51	-194.04	-62.59	-59.33	-54.26	-47.55
SO	YBADJ	BLR7	-22.61	25.04	17.27	8.98	0.42	-8.15
SO	YBADJ	BLR7	-16.48	-24.31	-21.95	-20.25	-22.30	-14.50
SO	YBADJ	BLR7	-6.26	2.18	10.55	18.59	15.22	18.90
SO	YBADJ	BLR7	22.61	-25.04	-17.27	-8.98	-0.42	8.15
SO	YBADJ	BLR7	16.48	24.31	21.95	13.47	-28.19	19.21
SO	YBADJ	BLR7	-8.06	-35.09	-10.55	-18.59	-15.22	-18.90

SO	BUILDHGT	BLR8	29.87	21.03	21.03	21.03	21.03	21.03
SO	BUILDHGT	BLR8	21.03	21.03	21.03	21.03	26.67	26.67
SO	BUILDHGT	BLR8	26.67	26.67	29.87	29.87	25.30	25.30
SO	BUILDHGT	BLR8	29.87	21.03	21.03	21.03	21.03	21.03
SO	BUILDHGT	BLR8	21.03	21.03	21.03	21.03	26.67	26.67
SO	BUILDHGT	BLR8	26.67	26.67	29.87	29.87	29.87	25.30
SO	BUILDWID	BLR8	22.52	24.06	25.28	25.72	25.38	24.27
SO	BUILDWID	BLR8	22.42	22.34	24.08	25.09	40.07	66.68
SO	BUILDWID	BLR8	31.14	31.17	27.37	26.43	73.92	69.74
SO	BUILDWID	BLR8	22.52	24.06	25.28	25.72	25.38	24.27
SO	BUILDWID	BLR8	22.42	22.34	24.08	25.09	40.07	30.65
SO	BUILDWID	BLR8	31.14	30.69	27.37	26.43	22.52	69.74
SO	BUILDLEN	BLR8	30.73	25.34	24.82	23.54	21.55	18.90
SO	BUILDLEN	BLR8	15.68	16.30	19.51	22.12	61.75	92.90
SO	BUILDLEN	BLR8	68.20	68.35	33.25	32.48	41.83	32.31
SO	BUILDLEN	BLR8	30.73	25.34	24.82	23.54	21.55	18.90
SO	BUILDLEN	BLR8	15.68	16.30	19.51	22.12	61.75	29.31
SO	BUILDLEN	BLR8	30.69	31.14	33.25	32.48	30.73	32.31
SO	XBADJ	BLR8	-75.00	-29.25	-26.62	-23.18	-19.03	-14.31
SO	XBADJ	BLR8	-9.15	-5.88	-3.96	-1.93	51.96	26.44
SO	XBADJ	BLR8	53.15	51.32	33.25	46.48	48.25	46.42
SO	XBADJ	BLR8	44.27	3.91	1.80	-0.36	-2.51	-4.59
SO	XBADJ	BLR8	-6.53	-10.42	-15.54	-20.19	-113.71	-119.35
SO	XBADJ	BLR8	-121.35	-119.67	33.25	-78.96	-78.98	-78.73
SO	YBADJ	BLR8	-22.15	-12.20	-14.89	-17.13	-18.85	-20.00
SO	YBADJ	BLR8	-20.54	-20.46	-19.75	-18.45	-29.24	-31.74
SO	YBADJ	BLR8	1.69	19.84	33.25	-10.63	26.12	37.37
SO	YBADJ	BLR8	22.15	12.20	14.89	17.13	18.85	20.00
SO	YBADJ	BLR8	20.54	20.46	19.75	18.45	29.24	16.74
SO	YBADJ	BLR8	-1.69	-20.08	33.25	10.63	-0.42	-37.37

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SO BUILDHGT S-1       45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-1       39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-1       45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDHGT S-1       45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-1       39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-1       45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDWID S-1       43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-1       74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-1       43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDWID S-1       43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-1       74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-1       43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDLEN S-1       33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-1       74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-1       40.22   36.58   31.82   26.10   22.27   28.49
SO BUILDLEN S-1       33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-1       74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-1       40.22   36.58   31.82   26.10   22.27   28.49
SO XBADJ    S-1        1.25    0.77    0.28   -0.23  -30.76  -33.55
SO XBADJ    S-1      -35.32   -2.76  -40.00  -42.02  -42.78  -16.89
SO XBADJ    S-1      -19.38  -21.29  -22.55  -23.12  -24.33  -30.17
SO XBADJ    S-1      -35.09  -38.95  -41.62  -43.03  -43.13  -41.92
SO XBADJ    S-1      -39.43  -36.48  -35.33  -33.11  -29.89  -25.75
SO XBADJ    S-1      -20.84  -15.29   -9.27   -2.98    2.06    1.68
SO YBADJ    S-1      -11.33   -8.00   -4.43   -0.73   11.02   11.93
SO YBADJ    S-1       -9.15   13.20   -9.59   11.80   10.85   20.95
SO YBADJ    S-1       21.40   21.20   20.36   18.90   16.86   14.31
SO YBADJ    S-1       11.33    8.00    4.43    0.73  -11.02  -11.93
SO YBADJ    S-1        9.15  -13.20    9.59  -11.80  -10.85  -20.95
SO YBADJ    S-1      -21.40  -21.20  -20.36  -18.90  -16.86  -14.31

SO BUILDHGT S-2       45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-2       39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-2       45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDHGT S-2       45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-2       39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-2       45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDWID S-2       43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-2       74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-2       43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDWID S-2       43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-2       74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-2       43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDLEN S-2       33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-2       74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-2       40.22   36.58   31.82   26.10   22.27   28.49
SO BUILDLEN S-2       33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-2       74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-2       40.22   36.58   31.82   26.10   22.27   28.49
SO XBADJ    S-2       -2.98   -5.20   -7.27   -9.11  -40.71  -44.27
SO XBADJ    S-2      -46.49  -14.03  -51.03  -52.48  -52.34  -25.27
SO XBADJ    S-2      -26.33  -26.58  -26.03  -24.69  -23.94  -27.83
SO XBADJ    S-2      -30.87  -32.97  -34.07  -34.14  -33.17  -31.19
SO XBADJ    S-2      -28.26  -25.21  -24.30  -22.66  -20.32  -17.37
SO XBADJ    S-2      -13.89   -9.99   -5.79   -1.41    1.67   -0.66
SO YBADJ    S-2       -0.87    1.56    3.95    6.22   16.32   15.42
SO YBADJ    S-2       -7.58   12.81  -11.93    7.57    4.87   13.40
SO YBADJ    S-2       12.51   11.24    9.63    7.73    5.59    3.28
SO YBADJ    S-2        0.87   -1.56   -3.95   -6.22  -16.32  -15.42
SO YBADJ    S-2        7.58  -12.81   11.93   -7.57   -4.87  -13.40
SO YBADJ    S-2      -12.51  -11.24   -9.63   -7.73   -5.59   -3.28

SO BUILDHGT S-3       45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-3       39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-3       45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDHGT S-3       45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S-3       39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S-3       45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDWID S-3       43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-3       74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-3       43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDWID S-3       43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S-3       74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S-3       43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDLEN S-3       33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-3       74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-3       40.22   36.58   31.82   26.10   22.27   28.49
SO BUILDLEN S-3       33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S-3       74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S-3       40.22   36.58   31.82   26.10   22.27   28.49
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SO XBADJ	S-3	-2.98	-5.20	-7.27	-9.11	-40.71	-44.27
SO XBADJ	S-3	-46.49	-14.03	-51.03	-52.48	-52.34	-25.27
SO XBADJ	S-3	-26.33	-26.58	-26.03	-24.69	-23.94	-27.83
SO XBADJ	S-3	-30.87	-32.97	-34.07	-34.14	-33.17	-31.19
SO XBADJ	S-3	-28.26	-25.21	-24.30	-22.66	-20.32	-17.37
SO XBADJ	S-3	-13.89	-9.99	-5.79	-1.41	1.67	-0.66
SO YBADJ	S-3	-0.87	1.56	3.95	6.22	16.32	15.42
SO YBADJ	S-3	-7.58	12.81	-11.93	7.57	4.87	13.40
SO YBADJ	S-3	12.51	11.24	9.63	7.73	5.59	3.28
SO YBADJ	S-3	0.87	-1.56	-3.95	-6.22	-16.32	-15.42
SO YBADJ	S-3	7.58	-12.81	11.93	-7.57	-4.87	-13.40
SO YBADJ	S-3	-12.51	-11.24	-9.63	-7.73	-5.59	-3.28

SO BUILDHGT	S-4	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S-4	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S-4	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDHGT	S-4	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S-4	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S-4	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDWID	S-4	43.57	43.77	42.64	40.22	52.63	42.42
SO BUILDWID	S-4	74.18	22.27	79.52	46.59	56.20	41.34
SO BUILDWID	S-4	43.25	43.85	43.11	41.07	39.23	42.04
SO BUILDWID	S-4	43.57	43.77	42.64	40.22	52.63	42.42
SO BUILDWID	S-4	74.18	22.27	79.52	46.59	56.20	41.34
SO BUILDWID	S-4	43.25	43.85	43.11	41.07	39.23	42.04
SO BUILDLEN	S-4	33.85	38.17	41.34	43.25	73.88	75.46
SO BUILDLEN	S-4	74.75	39.23	75.33	75.14	72.66	42.64
SO BUILDLEN	S-4	40.22	36.58	31.82	26.10	22.27	28.49
SO BUILDLEN	S-4	33.85	38.17	41.34	43.25	73.88	75.46
SO BUILDLEN	S-4	74.75	39.23	75.33	75.14	72.66	42.64
SO BUILDLEN	S-4	40.22	36.58	31.82	26.10	22.27	28.49
SO XBADJ	S-4	-11.54	-17.31	-22.56	-27.12	-60.90	-66.01
SO XBADJ	S-4	-69.12	-36.87	-73.39	-73.68	-71.73	-42.26
SO XBADJ	S-4	-40.40	-37.31	-33.10	-27.87	-23.14	-23.08
SO XBADJ	S-4	-22.31	-20.86	-18.78	-16.13	-12.99	-9.45
SO XBADJ	S-4	-5.63	-2.36	-1.94	-1.46	-0.94	-0.38
SO XBADJ	S-4	0.18	0.74	1.28	1.77	0.87	-5.42
SO YBADJ	S-4	20.32	20.95	20.94	20.29	27.05	22.48
SO YBADJ	S-4	-4.39	12.01	-16.68	-0.99	-7.24	-1.89
SO YBADJ	S-4	-5.50	-8.94	-12.11	-14.91	-17.25	-19.08
SO YBADJ	S-4	-20.32	-20.95	-20.94	-20.29	-27.05	-22.48
SO YBADJ	S-4	4.39	-12.01	16.68	0.99	7.24	1.89
SO YBADJ	S-4	5.50	8.94	12.11	14.91	17.25	19.08

SO BUILDHGT	S-5	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S-5	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S-5	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDHGT	S-5	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S-5	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S-5	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDWID	S-5	43.57	43.77	42.64	40.22	52.63	42.42
SO BUILDWID	S-5	74.18	22.27	79.52	46.59	56.20	41.34
SO BUILDWID	S-5	43.25	43.85	43.11	41.07	39.23	42.04
SO BUILDWID	S-5	43.57	43.77	42.64	40.22	52.63	42.42
SO BUILDWID	S-5	74.18	22.27	79.52	46.59	56.20	41.34
SO BUILDWID	S-5	43.25	43.85	43.11	41.07	39.23	42.04
SO BUILDLEN	S-5	33.85	38.17	41.34	43.25	73.88	75.46
SO BUILDLEN	S-5	74.75	39.23	75.33	75.14	72.66	42.64
SO BUILDLEN	S-5	40.22	36.58	31.82	26.10	22.27	28.49
SO BUILDLEN	S-5	33.85	38.17	41.34	43.25	73.88	75.46
SO BUILDLEN	S-5	74.75	39.23	75.33	75.14	72.66	42.64
SO BUILDLEN	S-5	40.22	36.58	31.82	26.10	22.27	28.49
SO XBADJ	S-5	-2.98	-5.20	-7.27	-9.11	-40.71	-44.27
SO XBADJ	S-5	-46.49	-14.03	-51.03	-52.48	-52.34	-25.27
SO XBADJ	S-5	-26.33	-26.58	-26.03	-24.69	-23.94	-27.83
SO XBADJ	S-5	-30.87	-32.97	-34.07	-34.14	-33.17	-31.19
SO XBADJ	S-5	-28.26	-25.21	-24.30	-22.66	-20.32	-17.37
SO XBADJ	S-5	-13.89	-9.99	-5.79	-1.41	1.67	-0.66
SO YBADJ	S-5	-0.87	1.56	3.95	6.22	16.32	15.42
SO YBADJ	S-5	-7.58	12.81	-11.93	7.57	4.87	13.40
SO YBADJ	S-5	12.51	11.24	9.63	7.73	5.59	3.28
SO YBADJ	S-5	0.87	-1.56	-3.95	-6.22	-16.32	-15.42
SO YBADJ	S-5	7.58	-12.81	11.93	-7.57	-4.87	-13.40
SO YBADJ	S-5	-12.51	-11.24	-9.63	-7.73	-5.59	-3.28

SO BUILDHGT	S-6	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S-6	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S-6	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDHGT	S-6	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S-6	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S-6	45.72	45.72	45.72	45.72	45.72	45.72

SO	BUILDWID	S-6	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S-6	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S-6	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S-6	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S-6	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S-6	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S-6	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-6	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-6	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S-6	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-6	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-6	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S-6	-2.98	-5.20	-7.27	-9.11	-40.71	-44.27
SO	XBADJ	S-6	-46.49	-14.03	-51.03	-52.48	-52.34	-25.27
SO	XBADJ	S-6	-26.33	-26.58	-26.03	-24.69	-23.94	-27.83
SO	XBADJ	S-6	-30.87	-32.97	-34.07	-34.14	-33.17	-31.19
SO	XBADJ	S-6	-28.26	-25.21	-24.30	-22.66	-20.32	-17.37
SO	XBADJ	S-6	-13.89	-9.99	-5.79	-1.41	1.67	-0.66
SO	YBADJ	S-6	-0.87	1.56	3.95	6.22	16.32	15.42
SO	YBADJ	S-6	-7.58	12.81	-11.93	7.57	4.87	13.40
SO	YBADJ	S-6	12.51	11.24	9.63	7.73	5.59	3.28
SO	YBADJ	S-6	0.87	-1.56	-3.95	-6.22	-16.32	-15.42
SO	YBADJ	S-6	7.58	-12.81	11.93	-7.57	-4.87	-13.40
SO	YBADJ	S-6	-12.51	-11.24	-9.63	-7.73	-5.59	-3.28

SO	BUILDHGT	S-7	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-7	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-7	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S-7	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-7	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-7	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S-7	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S-7	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S-7	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S-7	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S-7	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S-7	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S-7	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-7	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-7	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S-7	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-7	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-7	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S-7	1.39	2.39	3.32	4.14	-25.19	-26.95
SO	XBADJ	S-7	-27.90	5.27	-31.61	-33.54	-34.44	-8.96
SO	XBADJ	S-7	-12.10	36.58	-17.20	-19.00	-21.57	-28.84
SO	XBADJ	S-7	-35.24	-40.56	-44.66	-47.40	-48.69	-48.51
SO	XBADJ	S-7	-46.85	-44.50	-43.72	-41.60	-38.22	-33.68
SO	XBADJ	S-7	-28.12	36.58	-14.62	-7.10	-0.71	0.35
SO	YBADJ	S-7	-19.82	-16.34	-12.36	-8.01	4.61	6.59
SO	YBADJ	S-7	-13.27	10.43	-10.92	11.94	12.46	23.99
SO	YBADJ	S-7	25.77	36.58	26.95	26.32	24.89	22.70
SO	YBADJ	S-7	19.82	16.34	12.36	8.01	-4.61	-6.59
SO	YBADJ	S-7	13.27	-10.43	10.92	-11.94	-12.46	-23.99
SO	YBADJ	S-7	-25.77	36.58	-26.95	-26.32	-24.89	-22.70

SO	BUILDHGT	S-8	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-8	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-8	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S-8	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-8	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-8	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S-8	42.93	42.93	42.64	40.22	52.63	42.42
SO	BUILDWID	S-8	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S-8	42.93	42.93	42.93	41.07	39.23	42.04
SO	BUILDWID	S-8	42.93	42.93	42.64	40.22	52.63	42.42
SO	BUILDWID	S-8	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S-8	42.93	42.93	42.93	41.07	39.23	42.04
SO	BUILDLEN	S-8	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-8	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-8	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S-8	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-8	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-8	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S-8	33.85	38.17	10.66	12.79	-15.50	-16.52
SO	XBADJ	S-8	-17.03	16.24	-20.88	-23.36	-25.14	-0.81
SO	XBADJ	S-8	40.22	36.58	31.82	-17.47	-21.95	-31.12
SO	XBADJ	S-8	33.85	38.17	-52.00	-56.04	-58.38	-58.95
SO	XBADJ	S-8	-57.72	-55.47	-54.45	-51.78	-47.53	-41.84
SO	XBADJ	S-8	40.22	36.58	31.82	-8.63	-0.32	2.63
SO	YBADJ	S-8	33.85	38.17	-20.51	-14.76	-0.54	3.20
SO	YBADJ	S-8	-14.79	10.81	-8.64	16.05	18.28	31.33

SO	YBADJ	S-8	40.22	36.58	31.82	37.19	35.85	33.43
SO	YBADJ	S-8	33.85	38.17	20.51	14.76	0.54	-3.20
SO	YBADJ	S-8	14.79	-10.81	8.64	-16.05	-18.28	-31.33
SO	YBADJ	S-8	40.22	36.58	31.82	-37.19	-35.85	-33.43

SO	BUILDHGT	S-9	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-9	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-9	45.72	41.45	41.45	41.45	41.45	41.45
SO	BUILDHGT	S-9	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-9	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-9	45.72	41.45	41.45	41.45	41.45	41.45
SO	BUILDWID	S-9	39.42	39.42	39.42	39.42	52.63	42.42
SO	BUILDWID	S-9	74.18	22.27	79.52	46.59	56.20	39.42
SO	BUILDWID	S-9	39.42	73.88	75.46	74.75	73.23	75.33
SO	BUILDWID	S-9	39.42	39.42	39.42	39.42	52.63	42.42
SO	BUILDWID	S-9	74.18	22.27	79.52	46.59	56.20	39.42
SO	BUILDWID	S-9	39.42	73.88	75.46	74.75	73.23	75.33
SO	BUILDLEN	S-9	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-9	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-9	40.22	52.63	42.42	30.92	23.46	35.56
SO	BUILDLEN	S-9	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-9	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-9	40.22	52.63	42.42	30.92	23.46	35.56
SO	XBADJ	S-9	33.85	38.17	41.34	43.25	-5.81	-6.08
SO	XBADJ	S-9	-6.16	27.20	-10.14	-13.19	-15.83	42.64
SO	XBADJ	S-9	40.22	-20.62	-21.02	-20.77	-22.33	-33.40
SO	XBADJ	S-9	33.85	38.17	41.34	43.25	-68.07	-69.38
SO	XBADJ	S-9	-68.59	-66.44	-65.18	-61.95	-56.83	42.64
SO	XBADJ	S-9	40.22	-32.00	-21.40	-10.15	-1.13	-2.16
SO	YBADJ	S-9	33.85	38.17	41.34	43.25	-5.69	-0.19
SO	YBADJ	S-9	-16.32	11.20	-6.36	20.16	24.09	42.64
SO	YBADJ	S-9	40.22	31.13	31.65	31.21	29.82	27.52
SO	YBADJ	S-9	33.85	38.17	41.34	43.25	5.69	0.19
SO	YBADJ	S-9	16.32	-11.20	6.36	-20.16	-24.09	42.64
SO	YBADJ	S-9	40.22	-31.13	-31.65	-31.21	-29.82	-27.52

SO	BUILDHGT	S-10	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-10	39.62	30.48	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-10	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S-10	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-10	39.62	30.48	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-10	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S-10	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S-10	74.18	32.64	79.52	46.59	56.20	41.34
SO	BUILDWID	S-10	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S-10	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S-10	74.18	32.64	79.52	46.59	56.20	41.34
SO	BUILDWID	S-10	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S-10	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-10	74.75	30.22	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-10	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S-10	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-10	74.75	30.22	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-10	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S-10	11.45	8.85	5.99	2.94	-30.23	-35.68
SO	XBADJ	S-10	-40.05	-28.63	-49.41	-53.38	-55.73	-31.05
SO	XBADJ	S-10	-34.32	-36.55	-37.66	-37.64	-37.81	-42.20
SO	XBADJ	S-10	-45.30	-47.03	-47.33	-46.19	-43.65	-39.78
SO	XBADJ	S-10	-34.70	-1.59	-25.92	-21.76	-16.93	-11.59
SO	XBADJ	S-10	-5.90	-0.03	5.84	11.54	15.54	13.70
SO	YBADJ	S-10	0.02	4.95	9.73	14.21	26.28	27.05
SO	YBADJ	S-10	5.37	-25.08	2.44	22.01	18.93	26.66
SO	YBADJ	S-10	24.56	21.72	18.22	14.17	9.68	4.90
SO	YBADJ	S-10	-0.02	-4.95	-9.73	-14.21	-26.28	-27.05
SO	YBADJ	S-10	-5.37	25.08	-2.44	-22.01	-18.93	-26.66
SO	YBADJ	S-10	-24.56	-21.72	-18.22	-14.17	-9.68	-4.90

SO	BUILDHGT	S-11	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDHGT	S-11	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDHGT	S-11	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDHGT	S-11	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDHGT	S-11	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDHGT	S-11	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDWID	S-11	239.11	235.86	225.45	208.19	184.60	155.40
SO	BUILDWID	S-11	121.48	83.87	43.71	83.87	121.48	155.40
SO	BUILDWID	S-11	184.60	208.19	225.45	235.86	239.11	235.09
SO	BUILDWID	S-11	239.11	235.86	225.45	208.19	184.60	155.40
SO	BUILDWID	S-11	121.48	83.87	43.71	83.87	121.48	155.40
SO	BUILDWID	S-11	184.60	208.19	225.45	235.86	239.11	235.09
SO	BUILDLEN	S-11	83.87	121.48	155.40	184.60	208.19	225.45
SO	BUILDLEN	S-11	235.86	239.11	235.09	239.11	235.86	225.45

SO BUILDLEN	S-11	208.19	184.60	155.40	121.48	83.87	43.71
SO BUILDLEN	S-11	83.87	121.48	155.40	184.60	208.19	225.45
SO BUILDLEN	S-11	235.86	239.11	235.09	239.11	235.86	225.45
SO BUILDLEN	S-11	208.19	184.60	155.40	121.48	83.87	43.71
SO XBADJ	S-11	-78.21	-114.45	-147.21	-175.51	-198.46	-215.39
SO XBADJ	S-11	-225.78	-229.30	-225.86	-223.14	-213.65	-197.66
SO XBADJ	S-11	-175.67	-148.34	-116.50	-81.12	-43.28	-4.12
SO XBADJ	S-11	-5.66	-7.03	-8.18	-9.09	-9.72	-10.06
SO XBADJ	S-11	-10.09	-9.81	-9.23	-15.97	-22.22	-27.79
SO XBADJ	S-11	-32.52	-36.26	-38.90	-40.36	-40.59	-39.59
SO YBADJ	S-11	103.59	95.72	84.94	71.57	56.04	38.80
SO YBADJ	S-11	20.38	1.34	-17.73	-36.27	-53.71	-69.51
SO YBADJ	S-11	-83.21	-94.37	-102.67	-107.85	-109.75	-108.31
SO YBADJ	S-11	-103.59	-95.72	-84.94	-71.57	-56.04	-38.80
SO YBADJ	S-11	-20.38	-1.34	17.73	36.27	53.71	69.51
SO YBADJ	S-11	83.21	94.37	102.67	107.85	109.75	108.31

SO BUILDHGT	S-12	45.72	45.72	45.72	45.72	39.62	39.62
SO BUILDHGT	S-12	39.62	30.48	28.55	28.55	28.55	28.55
SO BUILDHGT	S-12	28.55	28.55	41.45	41.45	41.45	45.72
SO BUILDHGT	S-12	45.72	45.72	45.72	45.72	39.62	39.62
SO BUILDHGT	S-12	39.62	30.48	12.19	12.19	0.00	0.00
SO BUILDHGT	S-12	0.00	28.55	41.45	41.45	41.45	45.72
SO BUILDWID	S-12	43.57	43.77	42.64	40.22	80.94	78.76
SO BUILDWID	S-12	74.18	32.64	55.17	57.98	59.03	59.79
SO BUILDWID	S-12	62.36	63.03	75.46	74.75	73.23	42.04
SO BUILDWID	S-12	43.57	43.77	42.64	40.22	80.94	78.76
SO BUILDWID	S-12	74.18	32.64	65.31	66.35	0.00	0.00
SO BUILDWID	S-12	0.00	63.03	75.46	74.75	73.23	42.04
SO BUILDLEN	S-12	33.85	38.17	41.34	43.25	84.24	77.21
SO BUILDLEN	S-12	74.75	30.22	47.24	56.11	63.26	68.50
SO BUILDLEN	S-12	71.65	72.63	42.42	30.92	23.46	28.49
SO BUILDLEN	S-12	33.85	38.17	41.34	43.25	84.24	77.21
SO BUILDLEN	S-12	74.75	30.22	37.26	46.22	0.00	0.00
SO BUILDLEN	S-12	0.00	72.63	42.42	30.92	23.46	28.49
SO XBADJ	S-12	77.39	76.70	73.68	68.42	20.69	17.79
SO XBADJ	S-12	7.43	9.66	-115.21	-125.21	-131.41	-133.62
SO XBADJ	S-12	-131.77	-125.92	-88.01	-91.19	-94.04	-104.23
SO XBADJ	S-12	-111.24	-114.88	-115.02	-111.67	-104.93	-95.00
SO XBADJ	S-12	-82.18	-39.89	-71.84	-70.89	0.00	0.00
SO XBADJ	S-12	0.00	53.29	45.59	60.27	70.59	75.73
SO YBADJ	S-12	-16.73	-0.10	16.54	32.67	41.68	48.63
SO YBADJ	S-12	54.10	31.15	40.12	25.88	10.86	-5.24
SO YBADJ	S-12	-23.00	-40.06	57.27	44.80	30.98	32.85
SO YBADJ	S-12	16.73	0.10	-16.54	-32.67	-41.68	-48.63
SO YBADJ	S-12	-54.10	-31.15	-26.64	-35.48	0.00	0.00
SO YBADJ	S-12	0.00	40.06	-57.27	-44.80	-30.98	-32.85

SO BUILDHGT	S-13	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S-13	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S-13	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDHGT	S-13	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S-13	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S-13	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDWID	S-13	43.57	43.77	42.64	40.22	52.63	42.42
SO BUILDWID	S-13	74.18	22.27	79.52	46.59	56.20	41.34
SO BUILDWID	S-13	43.25	43.85	43.11	41.07	39.23	42.04
SO BUILDWID	S-13	43.57	43.77	42.64	40.22	52.63	42.42
SO BUILDWID	S-13	74.18	22.27	79.52	46.59	56.20	41.34
SO BUILDWID	S-13	43.25	43.85	43.11	41.07	39.23	42.04
SO BUILDLEN	S-13	33.85	38.17	41.34	43.25	73.88	75.46
SO BUILDLEN	S-13	74.75	39.23	75.33	75.14	72.66	42.64
SO BUILDLEN	S-13	40.22	36.58	31.82	26.10	22.27	28.49
SO BUILDLEN	S-13	33.85	38.17	41.34	43.25	73.88	75.46
SO BUILDLEN	S-13	74.75	39.23	75.33	75.14	72.66	42.64
SO BUILDLEN	S-13	40.22	36.58	31.82	26.10	22.27	28.49
SO XBADJ	S-13	-15.34	-12.80	-9.87	-6.64	-33.24	-32.03
SO XBADJ	S-13	-29.84	6.52	-27.21	-26.12	-24.23	3.73
SO XBADJ	S-13	2.68	1.56	0.38	-0.80	-3.31	-11.08
SO XBADJ	S-13	-18.51	-25.38	-31.47	-36.62	-40.64	-43.44
SO XBADJ	S-13	-44.91	-45.75	-48.12	-49.02	-48.43	-46.37
SO XBADJ	S-13	-42.90	-38.13	-32.20	-25.30	-18.96	-17.42
SO YBADJ	S-13	-27.24	-26.55	-25.05	-22.79	-11.82	-10.99
SO YBADJ	S-13	-31.46	-7.83	-28.68	-4.79	-2.72	10.80
SO YBADJ	S-13	14.99	18.72	21.88	24.38	26.13	27.10
SO YBADJ	S-13	27.24	26.55	25.05	22.79	11.82	10.99
SO YBADJ	S-13	31.46	7.83	28.68	4.79	2.72	-10.80
SO YBADJ	S-13	-14.99	-18.72	-21.88	-24.38	-26.13	-27.10

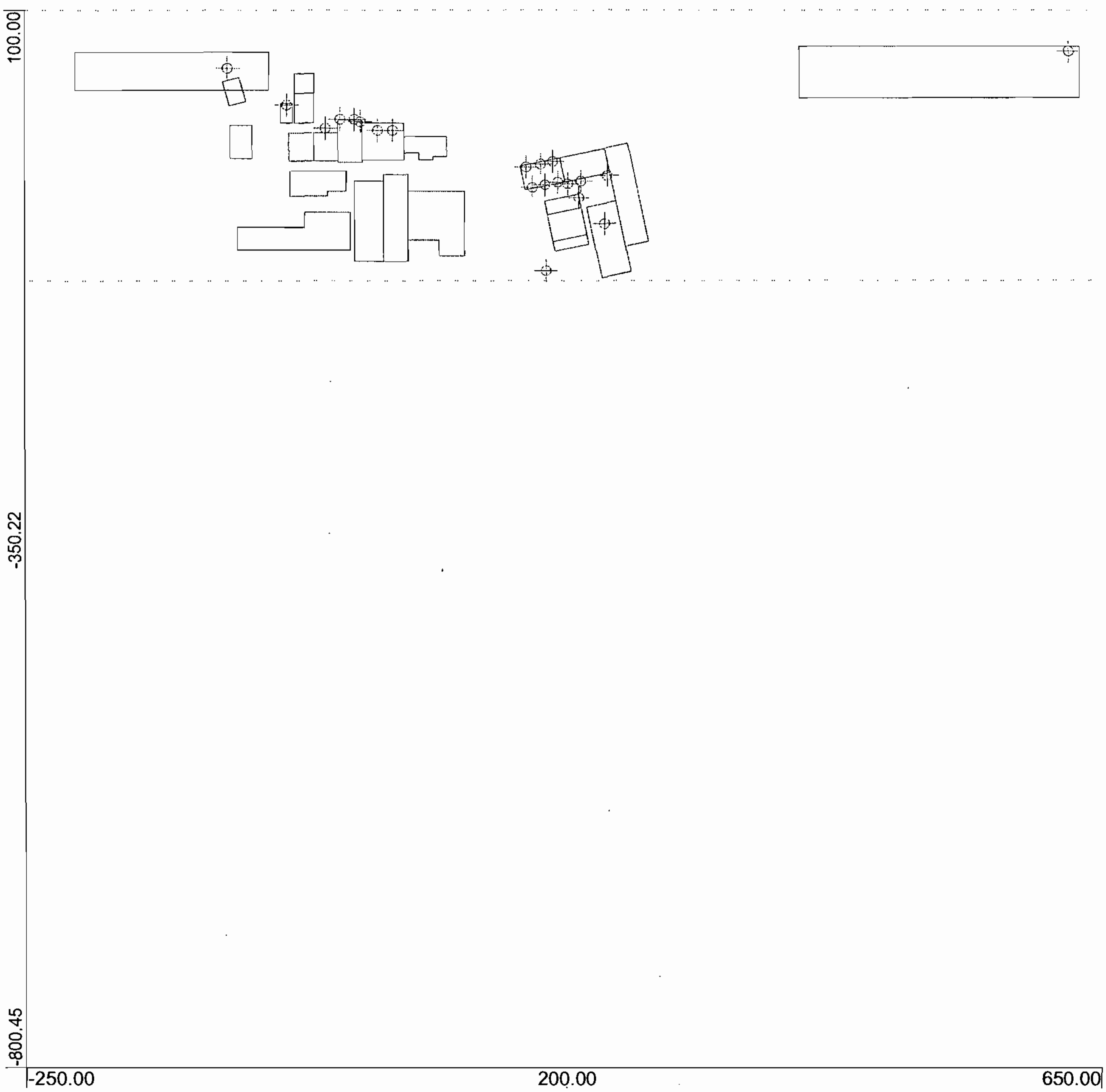
SO BUILDHGT	S-14	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S-14	39.62	45.72	39.62	41.45	41.45	45.72

SO	BUILDHGT	S-14	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S-14	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S-14	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-14	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S-14	42.64	42.64	42.64	40.22	52.63	42.42
SO	BUILDWID	S-14	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S-14	42.64	42.64	42.64	41.07	39.23	42.04
SO	BUILDWID	S-14	42.64	42.64	42.64	40.22	52.63	42.42
SO	BUILDWID	S-14	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S-14	42.64	42.64	42.64	41.07	39.23	42.04
SO	BUILDLEN	S-14	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-14	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-14	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S-14	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-14	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-14	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S-14	33.85	38.17	-2.73	1.77	-23.82	-21.88
SO	XBADJ	S-14	-19.27	17.18	-16.78	-16.23	-15.18	11.66
SO	XBADJ	S-14	40.22	36.58	31.82	0.68	-3.68	-13.30
SO	XBADJ	S-14	33.85	38.17	-38.61	-45.02	-50.07	-53.59
SO	XBADJ	S-14	-55.48	-56.41	-58.55	-58.91	-57.48	-54.30
SO	XBADJ	S-14	40.22	36.58	31.82	-26.78	-18.59	-15.20
SO	YBADJ	S-14	33.85	38.17	-32.98	-29.36	-16.83	-14.29
SO	YBADJ	S-14	-32.95	-7.45	-26.46	-0.79	2.93	17.94
SO	YBADJ	S-14	40.22	36.58	31.82	34.94	36.80	37.53
SO	YBADJ	S-14	33.85	38.17	32.98	29.36	16.83	14.29
SO	YBADJ	S-14	32.95	7.45	26.46	0.79	-2.93	-17.94
SO	YBADJ	S-14	40.22	36.58	31.82	-34.94	-36.80	-37.53
SO	BUILDHGT	S-15	41.45	41.45	41.45	41.45	41.45	41.45
SO	BUILDHGT	S-15	39.62	45.72	39.62	41.45	41.45	41.45
SO	BUILDHGT	S-15	41.45	41.45	41.45	41.45	41.45	41.45
SO	BUILDHGT	S-15	41.45	41.45	41.45	41.45	41.45	41.45
SO	BUILDHGT	S-15	39.62	45.72	39.62	41.45	41.45	41.45
SO	BUILDHGT	S-15	41.45	41.45	41.45	41.45	41.45	41.45
SO	BUILDWID	S-15	75.14	72.66	41.51	41.51	52.63	42.42
SO	BUILDWID	S-15	74.18	22.27	79.52	46.59	56.20	41.51
SO	BUILDWID	S-15	41.51	41.51	75.46	74.75	73.23	75.33
SO	BUILDWID	S-15	75.14	72.66	41.51	41.51	52.63	42.42
SO	BUILDWID	S-15	74.18	22.27	79.52	46.59	56.20	41.51
SO	BUILDWID	S-15	41.51	41.51	75.46	74.75	73.23	75.33
SO	BUILDLEN	S-15	46.59	56.20	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-15	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-15	40.22	36.58	42.42	30.92	23.46	35.56
SO	BUILDLEN	S-15	46.59	56.20	41.34	43.25	73.88	75.46
SO	BUILDLEN	S-15	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-15	40.22	36.58	42.42	30.92	23.46	35.56
SO	XBADJ	S-15	-19.52	-18.71	41.34	43.25	-13.05	-10.28
SO	XBADJ	S-15	-7.20	29.36	-4.85	-4.92	-4.85	42.64
SO	XBADJ	S-15	40.22	36.58	-3.15	-2.45	-4.11	-15.83
SO	XBADJ	S-15	-27.07	-37.49	41.34	43.25	-60.83	-65.18
SO	XBADJ	S-15	-67.55	-68.60	-70.48	-70.21	-67.82	42.64
SO	XBADJ	S-15	40.22	36.58	-39.27	-28.47	-19.35	-19.73
SO	YBADJ	S-15	-32.64	-31.48	41.34	43.25	-22.55	-18.06
SO	YBADJ	S-15	-34.64	-7.03	-23.93	3.78	9.39	42.64
SO	YBADJ	S-15	40.22	36.58	27.45	30.17	31.98	32.81
SO	YBADJ	S-15	32.64	31.49	41.34	43.25	22.55	18.06
SO	YBADJ	S-15	34.64	7.03	23.93	-3.78	-9.39	42.64
SO	YBADJ	S-15	40.22	36.58	-27.45	-30.17	-31.98	-32.81
SO	BUILDHGT	S-16	45.72	45.72	45.72	39.62	39.62	39.62
SO	BUILDHGT	S-16	39.62	30.48	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-16	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S-16	45.72	45.72	45.72	39.62	39.62	39.62
SO	BUILDHGT	S-16	39.62	30.48	39.62	41.45	41.45	45.72
SO	BUILDHGT	S-16	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S-16	43.57	43.77	42.64	80.66	80.94	78.76
SO	BUILDWID	S-16	74.18	32.64	79.52	46.59	56.20	41.34
SO	BUILDWID	S-16	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S-16	43.57	43.77	42.64	80.66	80.94	78.76
SO	BUILDWID	S-16	74.18	32.64	79.52	46.59	56.20	41.34
SO	BUILDWID	S-16	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S-16	33.85	38.17	41.34	88.71	84.24	77.21
SO	BUILDLEN	S-16	74.75	30.22	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-16	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S-16	33.85	38.17	41.34	88.71	84.24	77.21
SO	BUILDLEN	S-16	74.75	30.22	75.33	75.14	72.66	42.64
SO	BUILDLEN	S-16	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S-16	29.19	21.94	14.02	-39.78	-43.23	-45.37
SO	XBADJ	S-16	-53.05	-46.29	-71.19	-78.63	-83.68	-60.84
SO	XBADJ	S-16	-65.06	-67.29	-67.48	-65.62	-63.12	-64.05
SO	XBADJ	S-16	-63.04	-60.11	-55.36	-48.93	-41.01	-31.84

SO XBADJ	S-16	-21.70	16.07	-4.14	3.49	11.01	18.20
SO XBADJ	S-16	24.84	30.72	35.66	39.53	40.84	35.56
SO YBADJ	S-16	25.27	32.90	39.52	45.74	42.87	38.70
SO YBADJ	S-16	33.36	0.22	24.29	39.75	32.01	34.69
SO YBADJ	S-16	27.30	19.08	10.28	1.17	-7.98	-16.88
SO YBADJ	S-16	-25.27	-32.90	-39.52	-45.74	-42.87	-38.70
SO YBADJ	S-16	-33.36	-0.22	-24.29	-39.75	-32.01	-34.69
SO YBADJ	S-16	-27.30	-19.08	-10.28	-1.17	7.98	16.88

PROJECT TITLE:

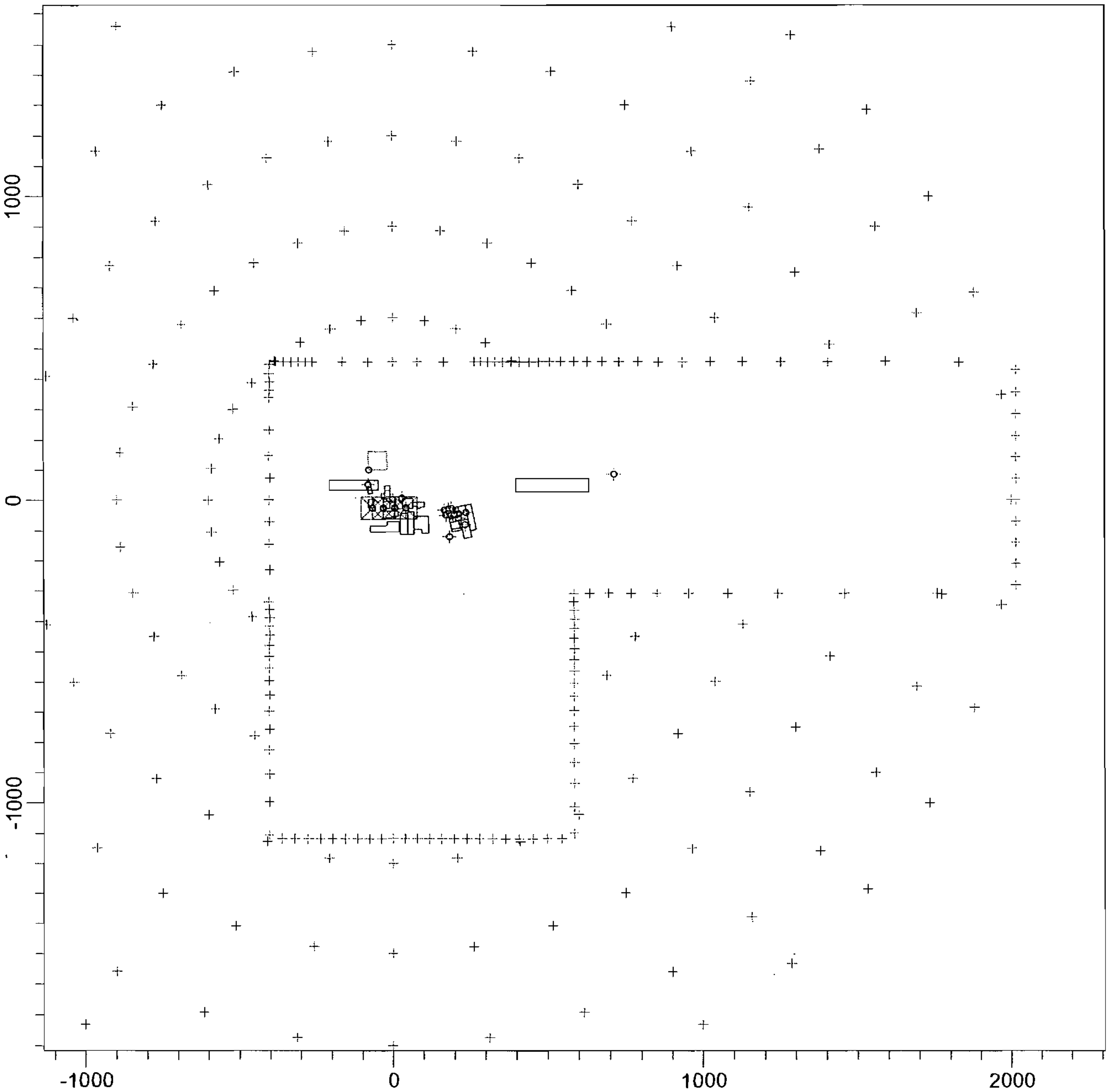
BPIP data for US Sugar Corp wrt Boiler 4 stack -3/24/03



COMMENTS:	BUILDINGS: 24	COMPANY NAME:	
	SOURCES: 24	MODELER:	
	Wind Direction:	0 ― 0.1 km	
		DATE: 3/26/03	PROJECT NO.:

PROJECT TITLE:

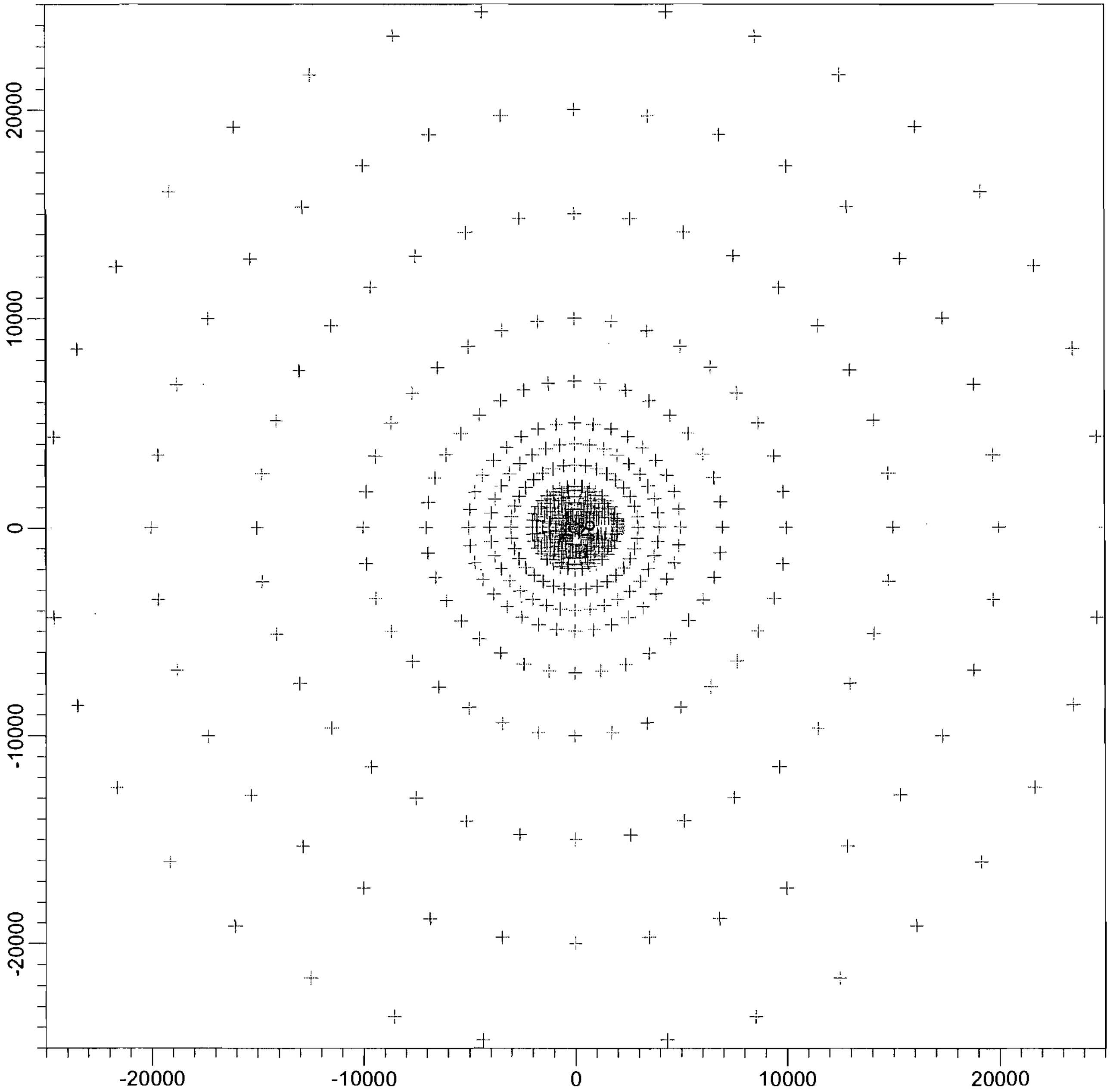
Source Locations and Plant Property Receptors



COMMENTS:	SOURCES : 55	COMPANY NAME:	
	RECEPTORS : 588	MODELER:	
		0 0.5 km	
		DATE: 3/26/2003	PROJECT NO.:

PROJECT TITLE:

Screening Receptor Grid for the U.S.Sugar Clewiston Mill



COMMENTS:	SOURCES : 55	COMPANY NAME:	
	RECEPTORS : 588	MODELER:	
		0 10 km	
		DATE: 3/26/2003	PROJECT NO.:

APPENDIX L

ISC-PRIME MODEL SUMMARY
AND EXAMPLE INPUT FILES

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SO2R03.O91
First title for last output file is: 1991 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- SO2 SIL 03/15/03
Second title for last output file is: BLR 8 100 & 80% LOAD HS= 199 FT 3-HOUR REFINED

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: 8080					
HIGH 3-Hour					
	1991	13.94777	289.00	1600.00	91082912
SOURCE GROUP ID: 8100					
HIGH 3-Hour					
	1991	14.64064	289.00	1700.00	91082912
SOURCE GROUP ID: 38080					
HIGH 3-Hour					
	1991	13.94777	289.00	1600.00	91082912
SOURCE GROUP ID: 38100					
HIGH 3-Hour					
	1991	14.64064	289.00	1700.00	91082912

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SO2S03.087
PRIME OUTPUT FILE NUMBER 2 :SO2S03.088
PRIME OUTPUT FILE NUMBER 3 :SO2S03.089
PRIME OUTPUT FILE NUMBER 4 :SO2S03.090
PRIME OUTPUT FILE NUMBER 5 :SO2S03.091
First title for last output file is: 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- SO2 SIL 03/25/03
Second title for last output file is: BLR 8 100 & 80% LOAD HS= 199 FT 3-HOUR

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: 8080					
HIGH 3-Hour					
	1987	13.81462	170.00	1500.00	87102612
	1988	12.58550	10.00	1800.00	88060815
	1989	13.10278	170.00	1800.00	89102612
	1990	12.70931	310.00	2000.00	90052815
	1991	13.76739	290.00	1500.00	91082912
SOURCE GROUP ID: 8100					
HIGH 3-Hour					
	1987	14.21563	170.00	1800.00	87102612
	1988	13.34703	10.00	2000.01	88060815
	1989	13.72474	310.00	2000.00	89071515
	1990	12.97348	310.00	2000.00	90052815
	1991	14.36068	290.00	1800.00	91082912
SOURCE GROUP ID: 38080					
HIGH 3-Hour					
	1987	13.81462	170.00	1500.00	87102612
	1988	12.58550	10.00	1800.00	88060815
	1989	13.10278	170.00	1800.00	89102612
	1990	10.65242	270.00	1800.00	90070712
	1991	13.76739	290.00	1500.00	91082912
SOURCE GROUP ID: 38100					
HIGH 3-Hour					
	1987	14.21563	170.00	1800.00	87102612
	1988	13.34703	10.00	2000.01	88060815
	1989	13.72474	310.00	2000.00	89071515
	1990	11.65884	120.00	3000.00	90072809
	1991	14.36068	290.00	1800.00	91082912

All receptor computations reported with respect to a user-specified origin
GRID 0.00 0.00
DISCRETE 0.00 0.00

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CO STARTING
CO TITLEONE 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- SO2 SIL  03/25/03
CO TITLETWO BLR 8 100 & 80% LOAD  HS= 199 FT 3-HOUR
CO MODELOPT DFAULT CONC    RURAL NOCMPL
CO AVERTIME 3
CO POLLUTID SO2
CO DCAYCOEF     .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING
**
** BLR 4 ORIGIN FOR GRID INCLUDING DISCRETE RECP
**
** Source Location Cards:
**            SRCID    SRCTYP        XS      YS
**
SO LOCATION  BLR4      POINT         0.0     0.0
SO LOCATION  BLR8100   POINT       -82.0    51.0
SO LOCATION  BLR8080   POINT       -82.0    51.0
SO LOCATION  BLR3      POINT       28.96    5.49
**
** Source Parameter Cards:
** POINT:    SRCID          QS       HS     TS       VS       DS

SO SRCPARAM  BLR4          0.0     45.7  344.3    25.66     2.50
SO SRCPARAM  BLR8100      22.1     60.7    439     15.3     3.96
SO SRCPARAM  BLR8080      17.7     60.7    439     12.3     3.96
SO SRCPARAM  BLR3        -4.10     64.9    330     14.2     2.44

SO BUILDHGT BLR8080-BLR8100        29.87    21.03    21.03    21.03    21.03    21.03
SO BUILDHGT BLR8080-BLR8100        21.03    21.03    21.03    21.03    26.67    26.67
SO BUILDHGT BLR8080-BLR8100        26.67    26.67    29.87    29.87    25.30    25.30
SO BUILDHGT BLR8080-BLR8100        29.87    21.03    21.03    21.03    21.03    21.03
SO BUILDHGT BLR8080-BLR8100        21.03    21.03    21.03    21.03    26.67    26.67
SO BUILDHGT BLR8080-BLR8100        26.67    26.67    29.87    29.87    29.87    25.30
SO BUILDWID BLR8080-BLR8100        22.52    24.06    25.28    25.72    25.38    24.27
SO BUILDWID BLR8080-BLR8100        22.42    22.34    24.08    25.09    40.07    66.68
SO BUILDWID BLR8080-BLR8100        31.14    31.17    27.37    26.43    73.92    69.74
SO BUILDWID BLR8080-BLR8100        22.52    24.06    25.28    25.72    25.38    24.27
SO BUILDWID BLR8080-BLR8100        22.42    22.34    24.08    25.09    40.07    30.65
SO BUILDWID BLR8080-BLR8100        31.14    30.69    27.37    26.43    22.52    69.74
SO BUILDLEN BLR8080-BLR8100        30.73    25.34    24.82    23.54    21.55    18.90
SO BUILDLEN BLR8080-BLR8100        15.68    16.30    19.51    22.12    61.75    92.90
SO BUILDLEN BLR8080-BLR8100        68.20    68.35    33.25    32.48    41.83    32.31
SO BUILDLEN BLR8080-BLR8100        30.73    25.34    24.82    23.54    21.55    18.90
SO BUILDLEN BLR8080-BLR8100        15.68    16.30    19.51    22.12    61.75    29.31
SO BUILDLEN BLR8080-BLR8100        30.69    31.14    33.25    32.48    30.73    32.31
SO XBADJ    BLR8080-BLR8100       -75.00   -29.25   -26.62   -23.18   -19.03   -14.31
SO XBADJ    BLR8080-BLR8100        -9.15    -5.88    -3.96    -1.93    51.96    26.44
SO XBADJ    BLR8080-BLR8100        53.15    51.32    33.25    46.48    48.25    46.42
SO XBADJ    BLR8080-BLR8100        44.27     3.91     1.80    -0.36    -2.51    -4.59
SO XBADJ    BLR8080-BLR8100        -6.53   -10.42   -15.54   -20.19  -113.71  -119.35
SO XBADJ    BLR8080-BLR8100      -121.35  -119.67    33.25   -78.96   -78.98   -78.73
SO YBADJ    BLR8080-BLR8100       -22.15   -12.20   -14.89   -17.13   -18.85   -20.00
SO YBADJ    BLR8080-BLR8100       -20.54   -20.46   -19.75   -18.45   -29.24   -31.74
SO YBADJ    BLR8080-BLR8100         1.69    19.84    33.25   -10.63    26.12    37.37
SO YBADJ    BLR8080-BLR8100        22.15    12.20    14.89    17.13    18.85    20.00
SO YBADJ    BLR8080-BLR8100        20.54    20.46    19.75    18.45    29.24    16.74
SO YBADJ    BLR8080-BLR8100        -1.69   -20.08    33.25    10.63    -0.42   -37.37

SO BUILDHGT BLR3        26.67    26.67    26.67    26.67    26.67    26.67
SO BUILDHGT BLR3        26.67    26.67    26.67    26.67    26.67    21.03
SO BUILDHGT BLR3        20.73    20.73    20.73    20.50    20.50    20.50
SO BUILDHGT BLR3        26.67    26.67    26.67    26.67    26.67    26.67
SO BUILDHGT BLR3        26.67    26.67    26.67    41.45    41.45    41.45
SO BUILDHGT BLR3        28.55    28.55    28.55    28.55    21.03    20.73
SO BUILDWID BLR3        55.65    27.03    29.31    30.69    31.14    30.65
SO BUILDWID BLR3        29.22    26.91    49.07    26.91    40.07    85.57
SO BUILDWID BLR3       105.13   109.15    55.67    43.68    39.97    35.05
SO BUILDWID BLR3        55.65    27.03    29.31    30.69    31.14    30.65
SO BUILDWID BLR3        29.22    26.91    49.07    46.59    56.20    64.10
SO BUILDWID BLR3        62.36    63.03    61.79    58.68    32.97    24.69
SO BUILDLEN BLR3        45.26    29.22    30.65    31.14    30.69    29.31
SO BUILDLEN BLR3        27.03    23.94    47.85    23.94    61.75    93.35
SO BUILDLEN BLR3       111.89   108.40    71.74    41.49    37.00    31.39
SO BUILDLEN BLR3        45.26    29.22    30.65    31.14    30.69    29.31
SO BUILDLEN BLR3        27.03    23.94    47.85    75.14    72.66    67.98
SO BUILDLEN BLR3        71.65    72.63    71.40    68.00    76.49    68.58
SO XBADJ    BLR3       -39.44   -44.46   -48.13   -50.33   -51.01   -50.14
SO XBADJ    BLR3       -47.74   -43.89   -66.45   -36.48   -67.86    39.30
SO XBADJ    BLR3        28.36    35.20    40.96     1.38     1.17     0.91
SO XBADJ    BLR3        -5.82    15.24    17.48    19.19    20.32    20.83
SO XBADJ    BLR3        20.70    19.95    18.59  -213.31  -211.14  -202.55
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SO XBADJ    BLR3      -140.25 -143.59 -142.57 -137.22 -124.00 -118.87
SO YBADJ    BLR3        40.37   19.63   14.14    8.23    2.07   -4.15
SO YBADJ    BLR3       -10.25  -16.04   -8.69  -25.99  -24.43  -50.41
SO YBADJ    BLR3       -41.83  -25.80  -36.09   12.22   15.88   19.05
SO YBADJ    BLR3       -40.37  -19.63  -14.14   -8.23   -2.07    4.15
SO YBADJ    BLR3        10.25   16.04    8.69   10.02  -20.65  -50.69
SO YBADJ    BLR3        20.44    2.75  -15.03  -32.35  -15.06   -7.16

SO EMISFACT BLR3   MONTH 1 1 1 1 1 0 0 0 0 0 1 1
**
SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
**
SO SRCGROUP 8080 BLR8080
SO SRCGROUP 8100 BLR8100
SO SRCGROUP 38080 BLR8080 BLR3
SO SRCGROUP 38100 BLR8100 BLR3
**
SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG   0.0   0.0
RE GRIDPOLR POL DIST  2000 3000 4000 5000 7000 10000 15000 20000 25000
RE GRIDPOLR POL GDIR   36  10.00  10.00
RE GRIDPOLR POL END
RE DISCPOLR  BLR4       463.        10.
RE DISCPOLR  BLR4       600.        10.
RE DISCPOLR  BLR4       900.        10.
RE DISCPOLR  BLR4      1200.        10.
RE DISCPOLR  BLR4      1500.        10.
RE DISCPOLR  BLR4      1800.        10.
RE DISCPOLR  BLR4       485.        20.
RE DISCPOLR  BLR4       600.        20.
RE DISCPOLR  BLR4       900.        20.
RE DISCPOLR  BLR4      1200.        20.
RE DISCPOLR  BLR4      1500.        20.
RE DISCPOLR  BLR4      1800.        20.
RE DISCPOLR  BLR4       527.        30.
RE DISCPOLR  BLR4       600.        30.
RE DISCPOLR  BLR4       900.        30.
RE DISCPOLR  BLR4      1200.        30.
RE DISCPOLR  BLR4      1500.        30.
RE DISCPOLR  BLR4      1800.        30.
RE DISCPOLR  BLR4       538.        32.
RE DISCPOLR  BLR4       550.        34.
RE DISCPOLR  BLR4       564.        36.
RE DISCPOLR  BLR4       579.        38.
RE DISCPOLR  BLR4       595.        40.
RE DISCPOLR  BLR4       600.        40.
RE DISCPOLR  BLR4       900.        40.
RE DISCPOLR  BLR4      1200.        40.
RE DISCPOLR  BLR4      1500.        40.
RE DISCPOLR  BLR4      1800.        40.
RE DISCPOLR  BLR4       614.        42.
RE DISCPOLR  BLR4       634.        44.
RE DISCPOLR  BLR4       656.        46.
RE DISCPOLR  BLR4       681.        48.
RE DISCPOLR  BLR4       709.        50.
RE DISCPOLR  BLR4       900.        50.
RE DISCPOLR  BLR4      1200.        50.
RE DISCPOLR  BLR4      1500.        50.
RE DISCPOLR  BLR4      1800.        50.
RE DISCPOLR  BLR4       741.        52.
RE DISCPOLR  BLR4       776.        54.
RE DISCPOLR  BLR4       815.        56.
RE DISCPOLR  BLR4       861.        58.
RE DISCPOLR  BLR4       912.        60.
RE DISCPOLR  BLR4      1200.        60.
RE DISCPOLR  BLR4      1500.        60.
RE DISCPOLR  BLR4      1800.        60.
RE DISCPOLR  BLR4       971.        62.
RE DISCPOLR  BLR4      1040.        64.
RE DISCPOLR  BLR4      1121.        66.
RE DISCPOLR  BLR4      1217.        68.
RE DISCPOLR  BLR4      1333.        70.
RE DISCPOLR  BLR4      1500.        70.
RE DISCPOLR  BLR4      1800.        70.
RE DISCPOLR  BLR4      1476.        72.
RE DISCPOLR  BLR4      1654.        74.
RE DISCPOLR  BLR4      1885.        76.
RE DISCPOLR  BLR4      2062.        78.
RE DISCPOLR  BLR4      2048.        80.
RE DISCPOLR  BLR4      2037.        82.
RE DISCPOLR  BLR4      2028.        84.
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RE	DISCPOLR	BLR4	2022.	86.
RE	DISCPOLR	BLR4	2018.	88.
RE	DISCPOLR	BLR4	2017.	90.
RE	DISCPOLR	BLR4	2018.	92.
RE	DISCPOLR	BLR4	2022.	94.
RE	DISCPOLR	BLR4	2028.	96.
RE	DISCPOLR	BLR4	2037.	98.
RE	DISCPOLR	BLR4	1785.	100.
RE	DISCPOLR	BLR4	1800.	100.
RE	DISCPOLR	BLR4	1491.	102.
RE	DISCPOLR	BLR4	1281.	104.
RE	DISCPOLR	BLR4	1125.	106.
RE	DISCPOLR	BLR4	1003.	108.
RE	DISCPOLR	BLR4	906.	110.
RE	DISCPOLR	BLR4	1200.	110.
RE	DISCPOLR	BLR4	1500.	110.
RE	DISCPOLR	BLR4	1800.	110.
RE	DISCPOLR	BLR4	828.	112.
RE	DISCPOLR	BLR4	762.	114.
RE	DISCPOLR	BLR4	707.	116.
RE	DISCPOLR	BLR4	663.	118.
RE	DISCPOLR	BLR4	675.	120.
RE	DISCPOLR	BLR4	900.	120.
RE	DISCPOLR	BLR4	1200.	120.
RE	DISCPOLR	BLR4	1500.	120.
RE	DISCPOLR	BLR4	1800.	120.
RE	DISCPOLR	BLR4	690.	122.
RE	DISCPOLR	BLR4	706.	124.
RE	DISCPOLR	BLR4	723.	126.
RE	DISCPOLR	BLR4	742.	128.
RE	DISCPOLR	BLR4	764.	130.
RE	DISCPOLR	BLR4	900.	130.
RE	DISCPOLR	BLR4	1200.	130.
RE	DISCPOLR	BLR4	1500.	130.
RE	DISCPOLR	BLR4	1800.	130.
RE	DISCPOLR	BLR4	787.	132.
RE	DISCPOLR	BLR4	813.	134.
RE	DISCPOLR	BLR4	842.	136.
RE	DISCPOLR	BLR4	874.	138.
RE	DISCPOLR	BLR4	910.	140.
RE	DISCPOLR	BLR4	1200.	140.
RE	DISCPOLR	BLR4	1500.	140.
RE	DISCPOLR	BLR4	1800.	140.
RE	DISCPOLR	BLR4	950.	142.
RE	DISCPOLR	BLR4	995.	144.
RE	DISCPOLR	BLR4	1046.	146.
RE	DISCPOLR	BLR4	1104.	148.
RE	DISCPOLR	BLR4	1170.	150.
RE	DISCPOLR	BLR4	1200.	150.
RE	DISCPOLR	BLR4	1500.	150.
RE	DISCPOLR	BLR4	1800.	150.
RE	DISCPOLR	BLR4	1246.	152.
RE	DISCPOLR	BLR4	1244.	154.
RE	DISCPOLR	BLR4	1224.	156.
RE	DISCPOLR	BLR4	1206.	158.
RE	DISCPOLR	BLR4	1190.	160.
RE	DISCPOLR	BLR4	1200.	160.
RE	DISCPOLR	BLR4	1500.	160.
RE	DISCPOLR	BLR4	1800.	160.
RE	DISCPOLR	BLR4	1176	162.
RE	DISCPOLR	BLR4	1163.	164.
RE	DISCPOLR	BLR4	1152.	166.
RE	DISCPOLR	BLR4	1143.	168.
RE	DISCPOLR	BLR4	1135.	170.
RE	DISCPOLR	BLR4	1200.	170.
RE	DISCPOLR	BLR4	1500.	170.
RE	DISCPOLR	BLR4	1800.	170.
RE	DISCPOLR	BLR4	1129	172.
RE	DISCPOLR	BLR4	1124.	174.
RE	DISCPOLR	BLR4	1121.	176.
RE	DISCPOLR	BLR4	1119.	178.
RE	DISCPOLR	BLR4	1118.	180.
RE	DISCPOLR	BLR4	1200.	180.
RE	DISCPOLR	BLR4	1500.	180.
RE	DISCPOLR	BLR4	1800.	180.
RE	DISCPOLR	BLR4	1119	182.
RE	DISCPOLR	BLR4	1121.	184.
RE	DISCPOLR	BLR4	1124.	186.
RE	DISCPOLR	BLR4	1129.	188.
RE	DISCPOLR	BLR4	1135.	190.
RE	DISCPOLR	BLR4	1200.	190.
RE	DISCPOLR	BLR4	1500.	190.
RE	DISCPOLR	BLR4	1800.	190.
RE	DISCPOLR	BLR4	1143	192.

RE	DISCPOLR	BLR4	1152.	194.
RE	DISCPOLR	BLR4	1163.	196.
RE	DISCPOLR	BLR4	1176.	198.
RE	DISCPOLR	BLR4	1178.	200.
RE	DISCPOLR	BLR4	1200.	200.
RE	DISCPOLR	BLR4	1500.	200.
RE	DISCPOLR	BLR4	1800.	200.
RE	DISCPOLR	BLR4	1076	202.
RE	DISCPOLR	BLR4	991.	204.
RE	DISCPOLR	BLR4	919.	206.
RE	DISCPOLR	BLR4	858.	208.
RE	DISCPOLR	BLR4	806.	210.
RE	DISCPOLR	BLR4	900.	210.
RE	DISCPOLR	BLR4	1200.	210.
RE	DISCPOLR	BLR4	1500.	210.
RE	DISCPOLR	BLR4	1800.	210.
RE	DISCPOLR	BLR4	760	212.
RE	DISCPOLR	BLR4	721.	214.
RE	DISCPOLR	BLR4	686.	216.
RE	DISCPOLR	BLR4	655.	218.
RE	DISCPOLR	BLR4	627.	220.
RE	DISCPOLR	BLR4	900.	220.
RE	DISCPOLR	BLR4	1200.	220.
RE	DISCPOLR	BLR4	1500.	220.
RE	DISCPOLR	BLR4	1800.	220.
RE	DISCPOLR	BLR4	602	222.
RE	DISCPOLR	BLR4	580.	224.
RE	DISCPOLR	BLR4	560.	226.
RE	DISCPOLR	BLR4	542.	228.
RE	DISCPOLR	BLR4	526.	230.
RE	DISCPOLR	BLR4	600.	230.
RE	DISCPOLR	BLR4	900.	230.
RE	DISCPOLR	BLR4	1200.	230.
RE	DISCPOLR	BLR4	1500.	230.
RE	DISCPOLR	BLR4	1800.	230.
RE	DISCPOLR	BLR4	465.	240.
RE	DISCPOLR	BLR4	600.	240.
RE	DISCPOLR	BLR4	900.	240.
RE	DISCPOLR	BLR4	1200.	240.
RE	DISCPOLR	BLR4	1500.	240.
RE	DISCPOLR	BLR4	1800.	240.
RE	DISCPOLR	BLR4	429.	250.
RE	DISCPOLR	BLR4	600.	250.
RE	DISCPOLR	BLR4	900.	250.
RE	DISCPOLR	BLR4	1200.	250.
RE	DISCPOLR	BLR4	1500.	250.
RE	DISCPOLR	BLR4	1800.	250.
RE	DISCPOLR	BLR4	409.	260.
RE	DISCPOLR	BLR4	600.	260.
RE	DISCPOLR	BLR4	900.	260.
RE	DISCPOLR	BLR4	1200.	260.
RE	DISCPOLR	BLR4	1500.	260.
RE	DISCPOLR	BLR4	1800.	260.
RE	DISCPOLR	BLR4	403.	270.
RE	DISCPOLR	BLR4	600.	270.
RE	DISCPOLR	BLR4	900.	270.
RE	DISCPOLR	BLR4	1200.	270.
RE	DISCPOLR	BLR4	1500.	270.
RE	DISCPOLR	BLR4	1800.	270.
RE	DISCPOLR	BLR4	409.	280.
RE	DISCPOLR	BLR4	600.	280.
RE	DISCPOLR	BLR4	900.	280.
RE	DISCPOLR	BLR4	1200.	280.
RE	DISCPOLR	BLR4	1500.	280.
RE	DISCPOLR	BLR4	1800.	280.
RE	DISCPOLR	BLR4	429.	290.
RE	DISCPOLR	BLR4	600.	290.
RE	DISCPOLR	BLR4	900.	290.
RE	DISCPOLR	BLR4	1200.	290.
RE	DISCPOLR	BLR4	1500.	290.
RE	DISCPOLR	BLR4	1800.	290.
RE	DISCPOLR	BLR4	465.	300.
RE	DISCPOLR	BLR4	600.	300.
RE	DISCPOLR	BLR4	900.	300.
RE	DISCPOLR	BLR4	1200.	300.
RE	DISCPOLR	BLR4	1500.	300.
RE	DISCPOLR	BLR4	1800.	300.
RE	DISCPOLR	BLR4	526.	310.
RE	DISCPOLR	BLR4	600.	310.
RE	DISCPOLR	BLR4	900.	310.
RE	DISCPOLR	BLR4	1200.	310.
RE	DISCPOLR	BLR4	1500.	310.
RE	DISCPOLR	BLR4	1800.	310.
RE	DISCPOLR	BLR4	542	312.

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RE DISCPOLR  BLR4        560.        314.
RE DISCPOLR  BLR4        580.        316.
RE DISCPOLR  BLR4        602.        318.
RE DISCPOLR  BLR4        595.        320.
RE DISCPOLR  BLR4        600.        320.
RE DISCPOLR  BLR4        900.        320.
RE DISCPOLR  BLR4       1200.        320.
RE DISCPOLR  BLR4       1500.        320.
RE DISCPOLR  BLR4       1800.        320.
RE DISCPOLR  BLR4        579         322.
RE DISCPOLR  BLR4        564.        324.
RE DISCPOLR  BLR4        550.        326.
RE DISCPOLR  BLR4        538.        328.
RE DISCPOLR  BLR4        527.        330.
RE DISCPOLR  BLR4        600.        330.
RE DISCPOLR  BLR4        900.        330.
RE DISCPOLR  BLR4       1200.        330.
RE DISCPOLR  BLR4       1500.        330.
RE DISCPOLR  BLR4       1800.        330.
RE DISCPOLR  BLR4        485.        340.
RE DISCPOLR  BLR4        600.        340.
RE DISCPOLR  BLR4        900.        340.
RE DISCPOLR  BLR4       1200.        340.
RE DISCPOLR  BLR4       1500.        340.
RE DISCPOLR  BLR4       1800.        340.
RE DISCPOLR  BLR4        463.        350.
RE DISCPOLR  BLR4        600.        350.
RE DISCPOLR  BLR4        900.        350.
RE DISCPOLR  BLR4       1200.        350.
RE DISCPOLR  BLR4       1500.        350.
RE DISCPOLR  BLR4       1800.        350.
RE DISCPOLR  BLR4        456.        360.
RE DISCPOLR  BLR4        600.        360.
RE DISCPOLR  BLR4        900.        360.
RE DISCPOLR  BLR4       1200.        360.
RE DISCPOLR  BLR4       1500.        360.
RE DISCPOLR  BLR4       1800.        360.
RE FINISHED

ME STARTING
ME INPUTFIL C:\MET\PBIPBI87.MET
ME ANEMHGHT    33 FEET
ME SURFDATA  12844  1987        PALM_BEACH_INTER
ME UAIRDATA  12844  1987        PALM_BEACH_INTER
ME WINDCATS    1.54     3.09     5.14     8.23    10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
```

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SO2R24.090
First title for last output file is: 1990 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- SO2 SIL 03/25/03
Second title for last output file is: BLR 8 100 & 80% LOAD HS= 199 FT 24-HOUR REFINED

ERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: 8080					
HIGH 24-Hour					
	1990	2.21706	323.00	3400.00	90101024
SOURCE GROUP ID: 8100					
HIGH 24-Hour					
	1990	2.31638	323.00	3800.00	90101024
SOURCE GROUP ID: 38080					
HIGH 24-Hour					
	1990	2.21706	323.00	3400.00	90101024
SOURCE GROUP ID: 38100					
HIGH 24-Hour					
	1990	2.31638	323.00	3800.00	90101024

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SO2S24.087
PRIME OUTPUT FILE NUMBER 2 :SO2S24.088
PRIME OUTPUT FILE NUMBER 3 :SO2S24.089
PRIME OUTPUT FILE NUMBER 4 :SO2S24.090
PRIME OUTPUT FILE NUMBER 5 :SO2S24.091
First title for last output file is: 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- SO2 SIL 03/25/03
Second title for last output file is: BLR 8 100 & 80% LOAD HS= 199 FT 24-HOUR

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: 8080					
HIGH 24-Hour					
	1987	2.17573	270.00	3000.00	87111624
	1988	1.86207	260.00	4000.00	88013024
	1989	1.81586	310.00	4000.00	89040424
	1990	1.90488	320.00	3000.00	90101024
	1991	2.69623	290.00	3000.00	91052124
SOURCE GROUP ID: 8100					
HIGH 24-Hour					
	1987	2.22447	270.00	4000.00	87111624
	1988	1.92051	260.00	4000.00	88013024
	1989	1.86231	310.00	5000.00	89040424
	1990	1.93744	320.00	4000.00	90101024
	1991	2.43898	290.00	4000.00	91052124
SOURCE GROUP ID: 38080					
HIGH 24-Hour					
	1987	1.49294	300.00	5000.00	87062024
	1988	1.57815	260.00	2000.01	88061824
	1989	1.39614	330.00	4000.00	89060924
	1990	1.90488	320.00	3000.00	90101024
	1991	1.76224	300.00	2000.00	91072824
SOURCE GROUP ID: 38100					
HIGH 24-Hour					
	1987	1.57283	300.00	7000.00	87062024
	1988	1.65297	260.00	2000.01	88061824
	1989	1.45397	330.00	4000.00	89060924
	1990	1.93744	320.00	4000.00	90101024
	1991	1.82681	300.00	2000.00	91072824

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

```
CO STARTING
CO TITLEONE 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- SO2 SIL  03/25/03
CO TITLETWO BLR 8 100 & 80% LOAD  HS= 199 FT 24-HOUR
CO MODELOPT DFAULT CONC   RURAL NOCMPL
CO AVERTIME 24
CO POLLUTID SO2
CO DCAYCOEF      .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING
**
** BLR 4 ORIGIN FOR GRID INCLUDING DISCRETE RECP
**
** Source Location Cards:
**           SRCID    SRCTYP       XS      YS
**
SO LOCATION  BLR4     POINT        0.0     0.0
SO LOCATION  BLR8100  POINT      -82.0    51.0
SO LOCATION  BLR8080  POINT      -82.0    51.0
SO LOCATION  BLR3     POINT      28.96    5.49
**
** Source Parameter Cards:
** POINT:   SRCID        QS       HS      TS       VS       DS

SO SRCPARAM  BLR4        0.0     45.7   344.3    25.66     2.50
SO SRCPARAM  BLR8100    11.8     60.7     439     15.3     3.96
SO SRCPARAM  BLR8080    9.43     60.7     439     12.3     3.96
SO SRCPARAM  BLR3      -4.10     64.9     330     14.2     2.44

SO BUILDHGT BLR8080-BLR8100       29.87   21.03   21.03   21.03   21.03   21.03
SO BUILDHGT BLR8080-BLR8100       21.03   21.03   21.03   21.03   26.67   26.67
SO BUILDHGT BLR8080-BLR8100       26.67   26.67   29.87   29.87   25.30   25.30
SO BUILDHGT BLR8080-BLR8100       29.87   21.03   21.03   21.03   21.03   21.03
SO BUILDHGT BLR8080-BLR8100       21.03   21.03   21.03   21.03   26.67   26.67
SO BUILDHGT BLR8080-BLR8100       26.67   26.67   29.87   29.87   29.87   25.30
SO BUILDWID BLR8080-BLR8100       22.52   24.06   25.28   25.72   25.38   24.27
SO BUILDWID BLR8080-BLR8100       22.42   22.34   24.08   25.09   40.07   66.68
SO BUILDWID BLR8080-BLR8100       31.14   31.17   27.37   26.43   73.92   69.74
SO BUILDWID BLR8080-BLR8100       22.52   24.06   25.28   25.72   25.38   24.27
SO BUILDWID BLR8080-BLR8100       22.42   22.34   24.08   25.09   40.07   30.65
SO BUILDWID BLR8080-BLR8100       31.14   30.69   27.37   26.43   22.52   69.74
SO BUILDLEN BLR8080-BLR8100       30.73   25.34   24.82   23.54   21.55   18.90
SO BUILDLEN BLR8080-BLR8100       15.68   16.30   19.51   22.12   61.75   92.90
SO BUILDLEN BLR8080-BLR8100       68.20   68.35   33.25   32.48   41.83   32.31
SO BUILDLEN BLR8080-BLR8100       30.73   25.34   24.82   23.54   21.55   18.90
SO BUILDLEN BLR8080-BLR8100       15.68   16.30   19.51   22.12   61.75   29.31
SO BUILDLEN BLR8080-BLR8100       30.69   31.14   33.25   32.48   30.73   32.31
SO XBADJ    BLR8080-BLR8100      -75.00  -29.25  -26.62  -23.18  -19.03  -14.31
SO XBADJ    BLR8080-BLR8100       -9.15   -5.88   -3.96   -1.93   51.96   26.44
SO XBADJ    BLR8080-BLR8100       53.15   51.32   33.25   46.48   48.25   46.42
SO XBADJ    BLR8080-BLR8100       44.27    3.91    1.80   -0.36   -2.51   -4.59
SO XBADJ    BLR8080-BLR8100       -6.53  -10.42  -15.54  -20.19 -113.71 -119.35
SO XBADJ    BLR8080-BLR8100     -121.35 -119.67   33.25  -78.96  -78.98  -78.73
SO YBADJ    BLR8080-BLR8100      -22.15  -12.20  -14.89  -17.13  -18.85  -20.00
SO YBADJ    BLR8080-BLR8100      -20.54  -20.46  -19.75  -18.45  -29.24  -31.74
SO YBADJ    BLR8080-BLR8100        1.69   19.84   33.25  -10.63   26.12   37.37
SO YBADJ    BLR8080-BLR8100       22.15   12.20   14.89   17.13   18.85   20.00
SO YBADJ    BLR8080-BLR8100       20.54   20.46   19.75   18.45   29.24   16.74
SO YBADJ    BLR8080-BLR8100       -1.69  -20.08   33.25   10.63   -0.42  -37.37

SO BUILDHGT BLR3       26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR3       26.67   26.67   26.67   26.67   26.67   21.03
SO BUILDHGT BLR3       20.73   20.73   20.73   20.50   20.50   20.50
SO BUILDHGT BLR3       26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR3       26.67   26.67   26.67   41.45   41.45   41.45
SO BUILDHGT BLR3       28.55   28.55   28.55   28.55   21.03   20.73
SO BUILDWID BLR3       55.65   27.03   29.31   30.69   31.14   30.65
SO BUILDWID BLR3       29.22   26.91   49.07   26.91   40.07   85.57
SO BUILDWID BLR3      105.13  109.15   55.67   43.68   39.97   35.05
SO BUILDWID BLR3       55.65   27.03   29.31   30.69   31.14   30.65
SO BUILDWID BLR3       29.22   26.91   49.07   46.59   56.20   64.10
SO BUILDWID BLR3       62.36   63.03   61.79   58.68   32.97   24.69
SO BUILDLEN BLR3       45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR3       27.03   23.94   47.85   23.94   61.75   93.35
SO BUILDLEN BLR3      111.89  108.40   71.74   41.49   37.00   31.39
SO BUILDLEN BLR3       45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR3       27.03   23.94   47.85   75.14   72.66   67.98
SO BUILDLEN BLR3       71.65   72.63   71.40   68.00   76.49   68.58
SO XBADJ    BLR3      -39.44  -44.46  -48.13  -50.33  -51.01  -50.14
SO XBADJ    BLR3      -47.74  -43.89  -66.45  -36.48  -67.86   39.30
SO XBADJ    BLR3       28.36   35.20   40.96    1.38    1.17    0.91
SO XBADJ    BLR3       -5.82   15.24   17.48   19.19   20.32   20.83
SO XBADJ    BLR3       20.70   19.95   18.59 -213.31 -211.14 -202.55
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SO XBADJ    BLR3     -140.25 -143.59 -142.57 -137.22 -124.00 -118.87
SO YBADJ    BLR3       40.37   19.63   14.14    8.23    2.07   -4.15
SO YBADJ    BLR3      -10.25  -16.04   -8.69  -25.99  -24.43  -50.41
SO YBADJ    BLR3      -41.83  -25.80  -36.09   12.22   15.88   19.05
SO YBADJ    BLR3      -40.37  -19.63  -14.14   -8.23   -2.07    4.15
SO YBADJ    BLR3       10.25   16.04    8.69   10.02  -20.65  -50.69
SO YBADJ    BLR3       20.44    2.75  -15.03  -32.35  -15.06   -7.16
**
SO EMISFACT BLR3   MONTH 1 1 1 1 1 0 0 0 0 0 1 1
**
SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
**
SO SRCGROUP 8080 BLR8080
SO SRCGROUP 8100 BLR8100
SO SRCGROUP 38080 BLR8080 BLR3
SO SRCGROUP 38100 BLR8100 BLR3
**
SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG   0.0    0.0
RE GRIDPOLR POL DIST  2000 3000 4000 5000 7000 10000 15000 20000 25000
RE GRIDPOLR POL GDIR   36  10.00  10.00
RE GRIDPOLR POL END
RE DISCPOLR  BLR4        463.         10.
RE DISCPOLR  BLR4        600.         10.
RE DISCPOLR  BLR4        900.         10.
RE DISCPOLR  BLR4       1200.         10.
RE DISCPOLR  BLR4       1500.         10.
RE DISCPOLR  BLR4       1800.         10.
RE DISCPOLR  BLR4        485.         20.
RE DISCPOLR  BLR4        600.         20.
RE DISCPOLR  BLR4        900.         20.
RE DISCPOLR  BLR4       1200.         20.
RE DISCPOLR  BLR4       1500.         20.
RE DISCPOLR  BLR4       1800.         20.
RE DISCPOLR  BLR4        527.         30.
RE DISCPOLR  BLR4        600.         30.
RE DISCPOLR  BLR4        900.         30.
RE DISCPOLR  BLR4       1200.         30.
RE DISCPOLR  BLR4       1500.         30.
RE DISCPOLR  BLR4       1800.         30.
RE DISCPOLR  BLR4        538.         32.
RE DISCPOLR  BLR4        550.         34.
RE DISCPOLR  BLR4        564.         36.
RE DISCPOLR  BLR4        579.         38.
RE DISCPOLR  BLR4        595.         40.
RE DISCPOLR  BLR4        600.         40.
RE DISCPOLR  BLR4        900.         40.
RE DISCPOLR  BLR4       1200.         40.
RE DISCPOLR  BLR4       1500.         40.
RE DISCPOLR  BLR4       1800.         40.
RE DISCPOLR  BLR4        614.         42.
RE DISCPOLR  BLR4        634.         44.
RE DISCPOLR  BLR4        656.         46.
RE DISCPOLR  BLR4        681.         48.
RE DISCPOLR  BLR4        709.         50.
RE DISCPOLR  BLR4        900.         50.
RE DISCPOLR  BLR4       1200.         50.
RE DISCPOLR  BLR4       1500.         50.
RE DISCPOLR  BLR4       1800.         50.
RE DISCPOLR  BLR4        741.         52.
RE DISCPOLR  BLR4        776.         54.
RE DISCPOLR  BLR4        815.         56.
RE DISCPOLR  BLR4        861.         58.
RE DISCPOLR  BLR4        912.         60.
RE DISCPOLR  BLR4       1200.         60.
RE DISCPOLR  BLR4       1500.         60.
RE DISCPOLR  BLR4       1800.         60.
RE DISCPOLR  BLR4        971.         62.
RE DISCPOLR  BLR4       1040.         64.
RE DISCPOLR  BLR4       1121.         66.
RE DISCPOLR  BLR4       1217.         68.
RE DISCPOLR  BLR4       1333.         70.
RE DISCPOLR  BLR4       1500.         70.
RE DISCPOLR  BLR4       1800.         70.
RE DISCPOLR  BLR4       1476.         72.
RE DISCPOLR  BLR4       1654.         74.
RE DISCPOLR  BLR4       1885.         76.
RE DISCPOLR  BLR4       2062.         78.
RE DISCPOLR  BLR4       2048.         80.
RE DISCPOLR  BLR4       2037.         82.
RE DISCPOLR  BLR4       2028.         84.
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RE	DISCPOLR	BLR4	2022.	86.
RE	DISCPOLR	BLR4	2018.	88.
RE	DISCPOLR	BLR4	2017.	90.
RE	DISCPOLR	BLR4	2018.	92.
RE	DISCPOLR	BLR4	2022.	94.
RE	DISCPOLR	BLR4	2028.	96.
RE	DISCPOLR	BLR4	2037.	98.
RE	DISCPOLR	BLR4	1785.	100.
RE	DISCPOLR	BLR4	1800.	100.
RE	DISCPOLR	BLR4	1491.	102.
RE	DISCPOLR	BLR4	1281.	104.
RE	DISCPOLR	BLR4	1125.	106.
RE	DISCPOLR	BLR4	1003.	108.
RE	DISCPOLR	BLR4	906.	110.
RE	DISCPOLR	BLR4	1200.	110.
RE	DISCPOLR	BLR4	1500.	110.
RE	DISCPOLR	BLR4	1800.	110.
RE	DISCPOLR	BLR4	828.	112.
RE	DISCPOLR	BLR4	762.	114.
RE	DISCPOLR	BLR4	707.	116.
RE	DISCPOLR	BLR4	663.	118.
RE	DISCPOLR	BLR4	675.	120.
RE	DISCPOLR	BLR4	900.	120.
RE	DISCPOLR	BLR4	1200.	120.
RE	DISCPOLR	BLR4	1500.	120.
RE	DISCPOLR	BLR4	1800.	120.
RE	DISCPOLR	BLR4	690.	122.
RE	DISCPOLR	BLR4	706.	124.
RE	DISCPOLR	BLR4	723.	126.
RE	DISCPOLR	BLR4	742.	128.
RE	DISCPOLR	BLR4	764.	130.
RE	DISCPOLR	BLR4	900.	130.
RE	DISCPOLR	BLR4	1200.	130.
RE	DISCPOLR	BLR4	1500.	130.
RE	DISCPOLR	BLR4	1800.	130.
RE	DISCPOLR	BLR4	787.	132.
RE	DISCPOLR	BLR4	813.	134.
RE	DISCPOLR	BLR4	842.	136.
RE	DISCPOLR	BLR4	874.	138.
RE	DISCPOLR	BLR4	910.	140.
RE	DISCPOLR	BLR4	1200.	140.
RE	DISCPOLR	BLR4	1500.	140.
RE	DISCPOLR	BLR4	1800.	140.
RE	DISCPOLR	BLR4	950.	142.
RE	DISCPOLR	BLR4	995.	144.
RE	DISCPOLR	BLR4	1046.	146.
RE	DISCPOLR	BLR4	1104.	148.
RE	DISCPOLR	BLR4	1170.	150.
RE	DISCPOLR	BLR4	1200.	150.
RE	DISCPOLR	BLR4	1500.	150.
RE	DISCPOLR	BLR4	1800.	150.
RE	DISCPOLR	BLR4	1246.	152.
RE	DISCPOLR	BLR4	1244.	154.
RE	DISCPOLR	BLR4	1224.	156.
RE	DISCPOLR	BLR4	1206.	158.
RE	DISCPOLR	BLR4	1190.	160.
RE	DISCPOLR	BLR4	1200.	160.
RE	DISCPOLR	BLR4	1500.	160.
RE	DISCPOLR	BLR4	1800.	160.
RE	DISCPOLR	BLR4	1176	162.
RE	DISCPOLR	BLR4	1163.	164.
RE	DISCPOLR	BLR4	1152.	166.
RE	DISCPOLR	BLR4	1143.	168.
RE	DISCPOLR	BLR4	1135.	170.
RE	DISCPOLR	BLR4	1200.	170.
RE	DISCPOLR	BLR4	1500.	170.
RE	DISCPOLR	BLR4	1800.	170.
RE	DISCPOLR	BLR4	1129	172.
RE	DISCPOLR	BLR4	1124.	174.
RE	DISCPOLR	BLR4	1121.	176.
RE	DISCPOLR	BLR4	1119.	178.
RE	DISCPOLR	BLR4	1118.	180.
RE	DISCPOLR	BLR4	1200.	180.
RE	DISCPOLR	BLR4	1500.	180.
RE	DISCPOLR	BLR4	1800.	180.
RE	DISCPOLR	BLR4	1119	182.
RE	DISCPOLR	BLR4	1121.	184.
RE	DISCPOLR	BLR4	1124.	186.
RE	DISCPOLR	BLR4	1129.	188.
RE	DISCPOLR	BLR4	1135.	190.
RE	DISCPOLR	BLR4	1200.	190.
RE	DISCPOLR	BLR4	1500.	190.
RE	DISCPOLR	BLR4	1800.	190.
RE	DISCPOLR	BLR4	1143	192.

RE	DISCPOLR	BLR4	1152.	194.
RE	DISCPOLR	BLR4	1163.	196.
RE	DISCPOLR	BLR4	1176.	198.
RE	DISCPOLR	BLR4	1178.	200.
RE	DISCPOLR	BLR4	1200.	200.
RE	DISCPOLR	BLR4	1500.	200.
RE	DISCPOLR	BLR4	1800.	200.
RE	DISCPOLR	BLR4	1076	202.
RE	DISCPOLR	BLR4	991.	204.
RE	DISCPOLR	BLR4	919.	206.
RE	DISCPOLR	BLR4	858.	208.
RE	DISCPOLR	BLR4	806.	210.
RE	DISCPOLR	BLR4	900.	210.
RE	DISCPOLR	BLR4	1200.	210.
RE	DISCPOLR	BLR4	1500.	210.
RE	DISCPOLR	BLR4	1800.	210.
RE	DISCPOLR	BLR4	760	212.
RE	DISCPOLR	BLR4	721.	214.
RE	DISCPOLR	BLR4	686.	216.
RE	DISCPOLR	BLR4	655.	218.
RE	DISCPOLR	BLR4	627.	220.
RE	DISCPOLR	BLR4	900.	220.
RE	DISCPOLR	BLR4	1200.	220.
RE	DISCPOLR	BLR4	1500.	220.
RE	DISCPOLR	BLR4	1800.	220.
RE	DISCPOLR	BLR4	602	222.
RE	DISCPOLR	BLR4	580.	224.
RE	DISCPOLR	BLR4	560.	226.
RE	DISCPOLR	BLR4	542.	228.
RE	DISCPOLR	BLR4	526.	230.
RE	DISCPOLR	BLR4	600.	230.
RE	DISCPOLR	BLR4	900.	230.
RE	DISCPOLR	BLR4	1200.	230.
RE	DISCPOLR	BLR4	1500.	230.
RE	DISCPOLR	BLR4	1800.	230.
RE	DISCPOLR	BLR4	465.	240.
RE	DISCPOLR	BLR4	600.	240.
RE	DISCPOLR	BLR4	900.	240.
RE	DISCPOLR	BLR4	1200.	240.
RE	DISCPOLR	BLR4	1500.	240.
RE	DISCPOLR	BLR4	1800.	240.
RE	DISCPOLR	BLR4	429.	250.
RE	DISCPOLR	BLR4	600.	250.
RE	DISCPOLR	BLR4	900.	250.
RE	DISCPOLR	BLR4	1200.	250.
RE	DISCPOLR	BLR4	1500.	250.
RE	DISCPOLR	BLR4	1800.	250.
RE	DISCPOLR	BLR4	409.	260.
RE	DISCPOLR	BLR4	600.	260.
RE	DISCPOLR	BLR4	900.	260.
RE	DISCPOLR	BLR4	1200.	260.
RE	DISCPOLR	BLR4	1500.	260.
RE	DISCPOLR	BLR4	1800.	260.
RE	DISCPOLR	BLR4	403.	270.
RE	DISCPOLR	BLR4	600.	270.
RE	DISCPOLR	BLR4	900.	270.
RE	DISCPOLR	BLR4	1200.	270.
RE	DISCPOLR	BLR4	1500.	270.
RE	DISCPOLR	BLR4	1800.	270.
RE	DISCPOLR	BLR4	409.	280.
RE	DISCPOLR	BLR4	600.	280.
RE	DISCPOLR	BLR4	900.	280.
RE	DISCPOLR	BLR4	1200.	280.
RE	DISCPOLR	BLR4	1500.	280.
RE	DISCPOLR	BLR4	1800.	280.
RE	DISCPOLR	BLR4	429.	290.
RE	DISCPOLR	BLR4	600.	290.
RE	DISCPOLR	BLR4	900.	290.
RE	DISCPOLR	BLR4	1200.	290.
RE	DISCPOLR	BLR4	1500.	290.
RE	DISCPOLR	BLR4	1800.	290.
RE	DISCPOLR	BLR4	465.	300.
RE	DISCPOLR	BLR4	600.	300.
RE	DISCPOLR	BLR4	900.	300.
RE	DISCPOLR	BLR4	1200.	300.
RE	DISCPOLR	BLR4	1500.	300.
RE	DISCPOLR	BLR4	1800.	300.
RE	DISCPOLR	BLR4	526.	310.
RE	DISCPOLR	BLR4	600.	310.
RE	DISCPOLR	BLR4	900.	310.
RE	DISCPOLR	BLR4	1200.	310.
RE	DISCPOLR	BLR4	1500.	310.
RE	DISCPOLR	BLR4	1800.	310.
RE	DISCPOLR	BLR4	542	312.

```
RE DISCPOLR  BLR4        560.        314.
RE DISCPOLR  BLR4        580.        316.
RE DISCPOLR  BLR4        602.        318.
RE DISCPOLR  BLR4        595.        320.
RE DISCPOLR  BLR4        600.        320.
RE DISCPOLR  BLR4        900.        320.
RE DISCPOLR  BLR4       1200.        320.
RE DISCPOLR  BLR4       1500.        320.
RE DISCPOLR  BLR4       1800.        320.
RE DISCPOLR  BLR4        579         322.
RE DISCPOLR  BLR4        564.        324.
RE DISCPOLR  BLR4        550.        326.
RE DISCPOLR  BLR4        538.        328.
RE DISCPOLR  BLR4        527.        330.
RE DISCPOLR  BLR4        600.        330.
RE DISCPOLR  BLR4        900.        330.
RE DISCPOLR  BLR4       1200.        330.
RE DISCPOLR  BLR4       1500.        330.
RE DISCPOLR  BLR4       1800.        330.
RE DISCPOLR  BLR4        485.        340.
RE DISCPOLR  BLR4        600.        340.
RE DISCPOLR  BLR4        900.        340.
RE DISCPOLR  BLR4       1200.        340.
RE DISCPOLR  BLR4       1500.        340.
RE DISCPOLR  BLR4       1800.        340.
RE DISCPOLR  BLR4        463.        350.
RE DISCPOLR  BLR4        600.        350.
RE DISCPOLR  BLR4        900.        350.
RE DISCPOLR  BLR4       1200.        350.
RE DISCPOLR  BLR4       1500.        350.
RE DISCPOLR  BLR4       1800.        350.
RE DISCPOLR  BLR4        456.        360.
RE DISCPOLR  BLR4        600.        360.
RE DISCPOLR  BLR4        900.        360.
RE DISCPOLR  BLR4       1200.        360.
RE DISCPOLR  BLR4       1500.        360.
RE DISCPOLR  BLR4       1800.        360.
RE FINISHED

ME STARTING
ME INPUTFIL C:\MET\PBIPBI87.MET
ME ANEMHGHT    33 FEET
ME SURFDATA  12844  1987       PALM_BEACH_INTER
ME UAIRDATA  12844  1987       PALM_BEACH_INTER
ME WINDCATS    1.54    3.09    5.14    8.23   10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
```

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SO2RAN.O90
First title for last output file is: 1990 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- SO2 SIL 03/15/03
Second title for last output file is: BLR 8 100 & 80% LOAD HS= 199 FT ANNUAL REFINED

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: 8080					
Annual					
	1990	0.13184	300.00	4000.00	90123124
SOURCE GROUP ID: 38080					
Annual					
	1990	0.08911	299.00	5000.00	90123124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SO2SAN.087
PRIME OUTPUT FILE NUMBER 2 :SO2SAN.088
PRIME OUTPUT FILE NUMBER 3 :SO2SAN.089
PRIME OUTPUT FILE NUMBER 4 :SO2SAN.090
PRIME OUTPUT FILE NUMBER 5 :SO2SAN.091
First title for last output file is: 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- SO2 SIL 03/25/03
Second title for last output file is: BLR 8 100 & 80% LOAD HS= 199 FT ANNUAL

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	8080				
Annual					
	1987	0.10955	300.00	4000.00	87123124
	1988	0.10147	270.00	3000.00	88123124
	1989	0.11419	300.00	4000.00	89123124
	1990	0.13184	300.00	4000.00	90123124
	1991	0.12392	300.00	4000.00	91123124
SOURCE GROUP ID:	38080				
Annual					
	1987	0.08035	300.00	5000.00	87123124
	1988	0.06674	300.00	5000.00	88123124
	1989	0.08217	300.00	5000.00	89123124
	1990	0.08872	300.00	5000.00	90123124
	1991	0.07470	300.00	5000.00	91123124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

```
CO STARTING
CO TITLEONE 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- SO2 SIL  03/25/03
CO TITLETWO BLR 8 100 & 80% LOAD HS= 199 FT ANNUAL
CO MODELOPT DFAULT CONC   RURAL NOCMPL
CO AVERTIME PERIOD
CO POLLUTID SO2
CO DCAYCOEF     .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING
**
** BLR 4 ORIGIN FOR GRID INCLUDING DISCRETE RECP
**
** Source Location Cards:
**            SRCID    SRCTYP       XS      YS
**
SO LOCATION  BLR4     POINT        0.0     0.0
SO LOCATION  BLR8080  POINT      -82.0    51.0
SO LOCATION  BLR3     POINT      28.96    5.49
**
** Source Parameter Cards:
** POINT:   SRCID        QS       HS      TS       VS       DS

SO SRCPARAM  BLR4        0.0     45.7   344.3    25.66     2.50
SO SRCPARAM  BLR8080    5.84     60.7    439     12.3      3.96
SO SRCPARAM  BLR3      -1.35     64.9    330     14.2      2.44

SO BUILDHGT BLR8080       29.87    21.03    21.03    21.03    21.03    21.03
SO BUILDHGT BLR8080       21.03    21.03    21.03    21.03    26.67    26.67
SO BUILDHGT BLR8080       26.67    26.67    29.87    29.87    25.30    25.30
SO BUILDHGT BLR8080       29.87    21.03    21.03    21.03    21.03    21.03
SO BUILDHGT BLR8080       21.03    21.03    21.03    21.03    26.67    26.67
SO BUILDHGT BLR8080       26.67    26.67    29.87    29.87    29.87    25.30
SO BUILDWID BLR8080       22.52    24.06    25.28    25.72    25.38    24.27
SO BUILDWID BLR8080       22.42    22.34    24.08    25.09    40.07    66.68
SO BUILDWID BLR8080       31.14    31.17    27.37    26.43    73.92    69.74
SO BUILDWID BLR8080       22.52    24.06    25.28    25.72    25.38    24.27
SO BUILDWID BLR8080       22.42    22.34    24.08    25.09    40.07    30.65
SO BUILDWID BLR8080       31.14    30.69    27.37    26.43    22.52    69.74
SO BUILDLEN BLR8080       30.73    25.34    24.82    23.54    21.55    18.90
SO BUILDLEN BLR8080       15.68    16.30    19.51    22.12    61.75    92.90
SO BUILDLEN BLR8080       68.20    68.35    33.25    32.48    41.83    32.31
SO BUILDLEN BLR8080       30.73    25.34    24.82    23.54    21.55    18.90
SO BUILDLEN BLR8080       15.68    16.30    19.51    22.12    61.75    29.31
SO BUILDLEN BLR8080       30.69    31.14    33.25    32.48    30.73    32.31
SO XBADJ    BLR8080      -75.00   -29.25   -26.62   -23.18   -19.03   -14.31
SO XBADJ    BLR8080       -9.15    -5.88    -3.96    -1.93    51.96    26.44
SO XBADJ    BLR8080       53.15    51.32    33.25    46.48    48.25    46.42
SO XBADJ    BLR8080       44.27     3.91     1.80    -0.36    -2.51    -4.59
SO XBADJ    BLR8080       -6.53   -10.42   -15.54   -20.19  -113.71  -119.35
SO XBADJ    BLR8080     -121.35  -119.67    33.25   -78.96   -78.98   -78.73
SO YBADJ    BLR8080      -22.15   -12.20   -14.89   -17.13   -18.85   -20.00
SO YBADJ    BLR8080      -20.54   -20.46   -19.75   -18.45   -29.24   -31.74
SO YBADJ    BLR8080        1.69    19.84    33.25   -10.63    26.12    37.37
SO YBADJ    BLR8080       22.15    12.20    14.89    17.13    18.85    20.00
SO YBADJ    BLR8080       20.54    20.46    19.75    18.45    29.24    16.74
SO YBADJ    BLR8080       -1.69   -20.08    33.25    10.63    -0.42   -37.37

SO BUILDHGT BLR3      26.67    26.67    26.67    26.67    26.67    26.67
SO BUILDHGT BLR3      26.67    26.67    26.67    26.67    26.67    21.03
SO BUILDHGT BLR3      20.73    20.73    20.73    20.50    20.50    20.50
SO BUILDHGT BLR3      26.67    26.67    26.67    26.67    26.67    26.67
SO BUILDHGT BLR3      26.67    26.67    26.67    41.45    41.45    41.45
SO BUILDHGT BLR3      28.55    28.55    28.55    28.55    21.03    20.73
SO BUILDWID BLR3      55.65    27.03    29.31    30.69    31.14    30.65
SO BUILDWID BLR3      29.22    26.91    49.07    26.91    40.07    85.57
SO BUILDWID BLR3     105.13   109.15    55.67    43.68    39.97    35.05
SO BUILDWID BLR3      55.65    27.03    29.31    30.69    31.14    30.65
SO BUILDWID BLR3      29.22    26.91    49.07    46.59    56.20    64.10
SO BUILDWID BLR3      62.36    63.03    61.79    58.68    32.97    24.69
SO BUILDLEN BLR3      45.26    29.22    30.65    31.14    30.69    29.31
SO BUILDLEN BLR3      27.03    23.94    47.85    23.94    61.75    93.35
SO BUILDLEN BLR3     111.89   108.40    71.74    41.49    37.00    31.39
SO BUILDLEN BLR3      45.26    29.22    30.65    31.14    30.69    29.31
SO BUILDLEN BLR3      27.03    23.94    47.85    75.14    72.66    67.98
SO BUILDLEN BLR3      71.65    72.63    71.40    68.00    76.49    68.58
SO XBADJ    BLR3     -39.44   -44.46   -48.13   -50.33   -51.01   -50.14
SO XBADJ    BLR3     -47.74   -43.89   -66.45   -36.48   -67.86    39.30
SO XBADJ    BLR3      28.36    35.20    40.96     1.38     1.17     0.91
SO XBADJ    BLR3      -5.82    15.24    17.48    19.19    20.32    20.83
SO XBADJ    BLR3      20.70    19.95    18.59  -213.31  -211.14  -202.55
SO XBADJ    BLR3    -140.25  -143.59  -142.57  -137.22  -124.00  -118.87
SO YBADJ    BLR3      40.37    19.63    14.14     8.23     2.07    -4.15
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SO YBADJ     BLR3      -10.25  -16.04   -8.69  -25.99  -24.43  -50.41
SO YBADJ     BLR3      -41.83  -25.80  -36.09   12.22   15.88   19.05
SO YBADJ     BLR3      -40.37  -19.63  -14.14   -8.23   -2.07    4.15
SO YBADJ     BLR3       10.25   16.04    8.69   10.02  -20.65  -50.69
SO YBADJ     BLR3       20.44    2.75  -15.03  -32.35  -15.06   -7.16
**
SO EMISFACT BLR3   MONTH 1 1 1 1 1 0 0 0 0 0 1 1
**
SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
**
SO SRCGROUP 8080 BLR8080
SO SRCGROUP 38080 BLR8080 BLR3
**
SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG    0.0    0.0
RE GRIDPOLR POL DIST  2000 3000 4000 5000 7000 10000 15000 20000 25000
RE GRIDPOLR POL GDIR    36  10.00  10.00
RE GRIDPOLR POL END
RE DISCPOLR  BLR4       463.         10.
RE DISCPOLR  BLR4       600.         10.
RE DISCPOLR  BLR4       900.         10.
RE DISCPOLR  BLR4      1200.         10.
RE DISCPOLR  BLR4      1500.         10.
RE DISCPOLR  BLR4      1800.         10.
RE DISCPOLR  BLR4       485.         20.
RE DISCPOLR  BLR4       600.         20.
RE DISCPOLR  BLR4       900.         20.
RE DISCPOLR  BLR4      1200.         20.
RE DISCPOLR  BLR4      1500.         20.
RE DISCPOLR  BLR4      1800.         20.
RE DISCPOLR  BLR4       527.         30.
RE DISCPOLR  BLR4       600.         30.
RE DISCPOLR  BLR4       900.         30.
RE DISCPOLR  BLR4      1200.         30.
RE DISCPOLR  BLR4      1500.         30.
RE DISCPOLR  BLR4      1800.         30.
RE DISCPOLR  BLR4       538.         32.
RE DISCPOLR  BLR4       550.         34.
RE DISCPOLR  BLR4       564.         36.
RE DISCPOLR  BLR4       579.         38.
RE DISCPOLR  BLR4       595.         40.
RE DISCPOLR  BLR4       600.         40.
RE DISCPOLR  BLR4       900.         40.
RE DISCPOLR  BLR4      1200.         40.
RE DISCPOLR  BLR4      1500.         40.
RE DISCPOLR  BLR4      1800.         40.
RE DISCPOLR  BLR4       614.         42.
RE DISCPOLR  BLR4       634.         44.
RE DISCPOLR  BLR4       656.         46.
RE DISCPOLR  BLR4       681.         48.
RE DISCPOLR  BLR4       709.         50.
RE DISCPOLR  BLR4       900.         50.
RE DISCPOLR  BLR4      1200.         50.
RE DISCPOLR  BLR4      1500.         50.
RE DISCPOLR  BLR4      1800.         50.
RE DISCPOLR  BLR4       741.         52.
RE DISCPOLR  BLR4       776.         54.
RE DISCPOLR  BLR4       815.         56.
RE DISCPOLR  BLR4       861.         58.
RE DISCPOLR  BLR4       912.         60.
RE DISCPOLR  BLR4      1200.         60.
RE DISCPOLR  BLR4      1500.         60.
RE DISCPOLR  BLR4      1800.         60.
RE DISCPOLR  BLR4       971.         62.
RE DISCPOLR  BLR4      1040.         64.
RE DISCPOLR  BLR4      1121.         66.
RE DISCPOLR  BLR4      1217.         68.
RE DISCPOLR  BLR4      1333.         70.
RE DISCPOLR  BLR4      1500.         70.
RE DISCPOLR  BLR4      1800.         70.
RE DISCPOLR  BLR4      1476.         72.
RE DISCPOLR  BLR4      1654.         74.
RE DISCPOLR  BLR4      1885.         76.
RE DISCPOLR  BLR4      2062.         78.
RE DISCPOLR  BLR4      2048.         80.
RE DISCPOLR  BLR4      2037.         82.
RE DISCPOLR  BLR4      2028.         84.
RE DISCPOLR  BLR4      2022.         86.
RE DISCPOLR  BLR4      2018.         88.
RE DISCPOLR  BLR4      2017.         90.
RE DISCPOLR  BLR4      2018.         92.
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RE	DISCPOLR	BLR4	2022.	94.
RE	DISCPOLR	BLR4	2028.	96.
RE	DISCPOLR	BLR4	2037.	98.
RE	DISCPOLR	BLR4	1785.	100.
RE	DISCPOLR	BLR4	1800.	100.
RE	DISCPOLR	BLR4	1491.	102.
RE	DISCPOLR	BLR4	1281.	104.
RE	DISCPOLR	BLR4	1125.	106.
RE	DISCPOLR	BLR4	1003.	108.
RE	DISCPOLR	BLR4	906.	110.
RE	DISCPOLR	BLR4	1200.	110.
RE	DISCPOLR	BLR4	1500.	110.
RE	DISCPOLR	BLR4	1800.	110.
RE	DISCPOLR	BLR4	828.	112.
RE	DISCPOLR	BLR4	762.	114.
RE	DISCPOLR	BLR4	707.	116.
RE	DISCPOLR	BLR4	663.	118.
RE	DISCPOLR	BLR4	675.	120.
RE	DISCPOLR	BLR4	900.	120.
RE	DISCPOLR	BLR4	1200.	120.
RE	DISCPOLR	BLR4	1500.	120.
RE	DISCPOLR	BLR4	1800.	120.
RE	DISCPOLR	BLR4	690.	122.
RE	DISCPOLR	BLR4	706.	124.
RE	DISCPOLR	BLR4	723.	126.
RE	DISCPOLR	BLR4	742.	128.
RE	DISCPOLR	BLR4	764.	130.
RE	DISCPOLR	BLR4	900.	130.
RE	DISCPOLR	BLR4	1200.	130.
RE	DISCPOLR	BLR4	1500.	130.
RE	DISCPOLR	BLR4	1800.	130.
RE	DISCPOLR	BLR4	787.	132.
RE	DISCPOLR	BLR4	813.	134.
RE	DISCPOLR	BLR4	842.	136.
RE	DISCPOLR	BLR4	874.	138.
RE	DISCPOLR	BLR4	910.	140.
RE	DISCPOLR	BLR4	1200.	140.
RE	DISCPOLR	BLR4	1500.	140.
RE	DISCPOLR	BLR4	1800.	140.
RE	DISCPOLR	BLR4	950.	142.
RE	DISCPOLR	BLR4	995.	144.
RE	DISCPOLR	BLR4	1046.	146.
RE	DISCPOLR	BLR4	1104.	148.
RE	DISCPOLR	BLR4	1170.	150.
RE	DISCPOLR	BLR4	1200.	150.
RE	DISCPOLR	BLR4	1500.	150.
RE	DISCPOLR	BLR4	1800.	150.
RE	DISCPOLR	BLR4	1246.	152.
RE	DISCPOLR	BLR4	1244.	154.
RE	DISCPOLR	BLR4	1224.	156.
RE	DISCPOLR	BLR4	1206.	158.
RE	DISCPOLR	BLR4	1190.	160.
RE	DISCPOLR	BLR4	1200.	160.
RE	DISCPOLR	BLR4	1500.	160.
RE	DISCPOLR	BLR4	1800.	160.
RE	DISCPOLR	BLR4	1176	162.
RE	DISCPOLR	BLR4	1163.	164.
RE	DISCPOLR	BLR4	1152.	166.
RE	DISCPOLR	BLR4	1143.	168.
RE	DISCPOLR	BLR4	1135.	170.
RE	DISCPOLR	BLR4	1200.	170.
RE	DISCPOLR	BLR4	1500.	170.
RE	DISCPOLR	BLR4	1800.	170.
RE	DISCPOLR	BLR4	1129	172.
RE	DISCPOLR	BLR4	1124.	174.
RE	DISCPOLR	BLR4	1121.	176.
RE	DISCPOLR	BLR4	1119.	178.
RE	DISCPOLR	BLR4	1118.	180.
RE	DISCPOLR	BLR4	1200.	180.
RE	DISCPOLR	BLR4	1500.	180.
RE	DISCPOLR	BLR4	1800.	180.
RE	DISCPOLR	BLR4	1119	182.
RE	DISCPOLR	BLR4	1121.	184.
RE	DISCPOLR	BLR4	1124.	186.
RE	DISCPOLR	BLR4	1129.	188.
RE	DISCPOLR	BLR4	1135.	190.
RE	DISCPOLR	BLR4	1200.	190.
RE	DISCPOLR	BLR4	1500.	190.
RE	DISCPOLR	BLR4	1800.	190.
RE	DISCPOLR	BLR4	1143	192.
RE	DISCPOLR	BLR4	1152.	194.
RE	DISCPOLR	BLR4	1163.	196.
RE	DISCPOLR	BLR4	1176.	198.
RE	DISCPOLR	BLR4	1178.	200.

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RE DISCPOLR  BLR4    1200.    200.
RE DISCPOLR  BLR4    1500.    200.
RE DISCPOLR  BLR4    1800.    200.
RE DISCPOLR  BLR4    1076     202.
RE DISCPOLR  BLR4     991.    204.
RE DISCPOLR  BLR4     919.    206.
RE DISCPOLR  BLR4     858.    208.
RE DISCPOLR  BLR4     806.    210.
RE DISCPOLR  BLR4     900.    210.
RE DISCPOLR  BLR4    1200.    210.
RE DISCPOLR  BLR4    1500.    210.
RE DISCPOLR  BLR4    1800.    210.
RE DISCPOLR  BLR4     760     212.
RE DISCPOLR  BLR4     721.    214.
RE DISCPOLR  BLR4     686.    216.
RE DISCPOLR  BLR4     655.    218.
RE DISCPOLR  BLR4     627.    220.
RE DISCPOLR  BLR4     900.    220.
RE DISCPOLR  BLR4    1200.    220.
RE DISCPOLR  BLR4    1500.    220.
RE DISCPOLR  BLR4    1800.    220.
RE DISCPOLR  BLR4     602     222.
RE DISCPOLR  BLR4     580.    224.
RE DISCPOLR  BLR4     560.    226.
RE DISCPOLR  BLR4     542.    228.
RE DISCPOLR  BLR4     526.    230.
RE DISCPOLR  BLR4     600.    230.
RE DISCPOLR  BLR4     900.    230.
RE DISCPOLR  BLR4    1200.    230.
RE DISCPOLR  BLR4    1500.    230.
RE DISCPOLR  BLR4    1800.    230.
RE DISCPOLR  BLR4     465.    240.
RE DISCPOLR  BLR4     600.    240.
RE DISCPOLR  BLR4     900.    240.
RE DISCPOLR  BLR4    1200.    240.
RE DISCPOLR  BLR4    1500.    240.
RE DISCPOLR  BLR4    1800.    240.
RE DISCPOLR  BLR4     429.    250.
RE DISCPOLR  BLR4     600.    250.
RE DISCPOLR  BLR4     900.    250.
RE DISCPOLR  BLR4    1200.    250.
RE DISCPOLR  BLR4    1500.    250.
RE DISCPOLR  BLR4    1800.    250.
RE DISCPOLR  BLR4     409.    260.
RE DISCPOLR  BLR4     600.    260.
RE DISCPOLR  BLR4     900.    260.
RE DISCPOLR  BLR4    1200.    260.
RE DISCPOLR  BLR4    1500.    260.
RE DISCPOLR  BLR4    1800.    260.
RE DISCPOLR  BLR4     403.    270.
RE DISCPOLR  BLR4     600.    270.
RE DISCPOLR  BLR4     900.    270.
RE DISCPOLR  BLR4    1200.    270.
RE DISCPOLR  BLR4    1500.    270.
RE DISCPOLR  BLR4    1800.    270.
RE DISCPOLR  BLR4     409.    280.
RE DISCPOLR  BLR4     600.    280.
RE DISCPOLR  BLR4     900.    280.
RE DISCPOLR  BLR4    1200.    280.
RE DISCPOLR  BLR4    1500.    280.
RE DISCPOLR  BLR4    1800.    280.
RE DISCPOLR  BLR4     429.    290.
RE DISCPOLR  BLR4     600.    290.
RE DISCPOLR  BLR4     900.    290.
RE DISCPOLR  BLR4    1200.    290.
RE DISCPOLR  BLR4    1500.    290.
RE DISCPOLR  BLR4    1800.    290.
RE DISCPOLR  BLR4     465.    300.
RE DISCPOLR  BLR4     600.    300.
RE DISCPOLR  BLR4     900.    300.
RE DISCPOLR  BLR4    1200.    300.
RE DISCPOLR  BLR4    1500.    300.
RE DISCPOLR  BLR4    1800.    300.
RE DISCPOLR  BLR4     526.    310.
RE DISCPOLR  BLR4     600.    310.
RE DISCPOLR  BLR4     900.    310.
RE DISCPOLR  BLR4    1200.    310.
RE DISCPOLR  BLR4    1500.    310.
RE DISCPOLR  BLR4    1800.    310.
RE DISCPOLR  BLR4     542     312.
RE DISCPOLR  BLR4     560.    314.
RE DISCPOLR  BLR4     580.    316.
RE DISCPOLR  BLR4     602.    318.
RE DISCPOLR  BLR4     595.    320.
```

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RE DISCPOLR  BLR4       600.       320.
RE DISCPOLR  BLR4       900.       320.
RE DISCPOLR  BLR4      1200.       320.
RE DISCPOLR  BLR4      1500.       320.
RE DISCPOLR  BLR4      1800.       320.
RE DISCPOLR  BLR4       579        322.
RE DISCPOLR  BLR4       564.       324.
RE DISCPOLR  BLR4       550.       326.
RE DISCPOLR  BLR4       538.       328.
RE DISCPOLR  BLR4       527.       330.
RE DISCPOLR  BLR4       600.       330.
RE DISCPOLR  BLR4       900.       330.
RE DISCPOLR  BLR4      1200.       330.
RE DISCPOLR  BLR4      1500.       330.
RE DISCPOLR  BLR4      1800.       330.
RE DISCPOLR  BLR4       485.       340.
RE DISCPOLR  BLR4       600.       340.
RE DISCPOLR  BLR4       900.       340.
RE DISCPOLR  BLR4      1200.       340.
RE DISCPOLR  BLR4      1500.       340.
RE DISCPOLR  BLR4      1800.       340.
RE DISCPOLR  BLR4       463.       350.
RE DISCPOLR  BLR4       600.       350.
RE DISCPOLR  BLR4       900.       350.
RE DISCPOLR  BLR4      1200.       350.
RE DISCPOLR  BLR4      1500.       350.
RE DISCPOLR  BLR4      1800.       350.
RE DISCPOLR  BLR4       456.       360.
RE DISCPOLR  BLR4       600.       360.
RE DISCPOLR  BLR4       900.       360.
RE DISCPOLR  BLR4      1200.       360.
RE DISCPOLR  BLR4      1500.       360.
RE DISCPOLR  BLR4      1800.       360.
RE FINISHED

ME STARTING
ME INPUTFIL C:\MET\PBIPBI87.MET
ME ANEMHGHT    33 FEET
ME SURFDATA  12844  1987        PALM_BEACH_INTER
ME UAIRDATA  12844  1987        PALM_BEACH_INTER
ME WINDCATS    1.54     3.09     5.14     8.23    10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
```

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :PMR24.089
First title for last output file is: 1989 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- PM SIL 03/27/03 REFINED
Second title for last output file is: BLR 8 100 & 80% LOAD 24-HOUR WITH BAGASSE HANDLING & REF. SRCE

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: 8080					
HIGH 24-Hour					
	1989	0.02062	280.00	600.00	89042624
SOURCE GROUP ID: 8100					
HIGH 24-Hour					
	1989	0.01202	280.00	600.00	89042624
SOURCE GROUP ID: 38080					
HIGH 24-Hour					
	1989	4.89783	270.00	403.00	89122924
SOURCE GROUP ID: 38100					
HIGH 24-Hour					
	1989	4.89783	270.00	403.00	89122924

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :PMS24.087
PRIME OUTPUT FILE NUMBER 2 :PMS24.088
PRIME OUTPUT FILE NUMBER 3 :PMS24.089
PRIME OUTPUT FILE NUMBER 4 :PMS24.090
PRIME OUTPUT FILE NUMBER 5 :PMS24.091
First title for last output file is: 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- PM SIL 03/25/03
Second title for last output file is: BLR 8 100 & 80% LOAD 24-HOUR WITH BAGASSE HANDLING & REF. SRCE

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	8080				
HIGH 24-Hour					
	1987	0.56527	270.00	3000.00	87111624
	1988	0.48378	260.00	4000.00	88013024
	1989	0.47178	310.00	4000.00	89040424
	1990	0.49490	320.00	3000.00	90101024
	1991	0.70051	290.00	3000.00	91052124
SOURCE GROUP ID:	8100				
HIGH 24-Hour					
	1987	0.57874	270.00	4000.00	87111624
	1988	0.49966	260.00	4000.00	88013024
	1989	0.48452	310.00	5000.00	89040424
	1990	0.50406	320.00	4000.00	90101024
	1991	0.63455	290.00	4000.00	91052124
SOURCE GROUP ID:	38080				
HIGH 24-Hour					
	1987	3.83354	250.00	429.00	87112324
	1988	3.95663	270.00	403.00	88111624
	1989	4.89783	270.00	403.00	89122924
	1990	4.24607	270.00	403.00	90112924
	1991	4.34796	280.00	409.00	91010224
SOURCE GROUP ID:	38100				
HIGH 24-Hour					
	1987	3.83354	250.00	429.00	87112324
	1988	3.95663	270.00	403.00	88111624
	1989	4.89783	270.00	403.00	89122924
	1990	4.24607	270.00	403.00	90112924
	1991	4.34796	280.00	409.00	91010224

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

```
O STARTING
O TITLEONE 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- PM  SIL  03/25/03
O TITLETWO BLR 8 100 & 80% LOAD 24-HOUR    WITH BAGASSE HANDLING & REF. SRCE
O MODELOPT DFAULT CONC   RURAL NOCMPL
O AVERTIME 24
O POLLUTID GEN
O DCAYCOEF     .000000
O RUNORNOT RUN
O FINISHED

O STARTING
*
* BLR 4 ORIGIN FOR GRID INCLUDING DISCRETE RECP
*
* Source Location Cards:
*          SRCID     SRCTYP        XS      YS
*
O LOCATION  BLR4      POINT        0.0     0.0

O LOCATION  BLR8100   POINT      -82.0    51.0
O LOCATION  BLR8080   POINT      -82.0    51.0

O LOCATION  PILEON   AREA       -79.3    99.1
O LOCATION  CNVON1   VOLUME     -67.1   -25.9
O LOCATION  CNVON2   VOLUME     -30.5   -25.9
O LOCATION  CNVON3   VOLUME       6.1   -25.9
O LOCATION  CNVON4   VOLUME      42.7   -25.9

O LOCATION  PILEOF   AREA       -79.3    99.1
O LOCATION  CNVOF1   VOLUME     -67.1   -25.9
O LOCATION  CNVOF2   VOLUME     -30.5   -25.9
O LOCATION  CNVOF3   VOLUME       6.1   -25.9
O LOCATION  CNVOF4   VOLUME      42.7   -25.9

O LOCATION  S13    POINT          189.84       -28.20        .0000
O LOCATION  S14    POINT          179.41       -30.42        .0000
O LOCATION  S15    POINT          167.48       -32.95        .0000
O LOCATION  S16    POINT          233.82       -81.17        .0000

O LOCATION  BLR3      POINT       28.96    5.49

O LOCATION  PILEONB    AREA       -79.3    99.1
O LOCATION  CNVON1B  VOLUME      -67.1   -25.9
O LOCATION  CNVON2B  VOLUME      -30.5   -25.9
O LOCATION  CNVON3B  VOLUME        6.1   -25.9
O LOCATION  CNVON4B  VOLUME       42.7   -25.9

O LOCATION  PILEOFB    AREA       -79.3    99.1
O LOCATION  CNVOF1B  VOLUME      -67.1   -25.9
O LOCATION  CNVOF2B  VOLUME      -30.5   -25.9
O LOCATION  CNVOF3B  VOLUME        6.1   -25.9
O LOCATION  CNVOF4B  VOLUME       42.7   -25.9

*
* Source Parameter Cards:
* POINT:   SRCID        QS       HS      TS       VS       DS

O SRCPARAM  BLR4        0.0     45.7   344.3    25.66     2.50

O SRCPARAM  BLR8100   3.07     60.7    439      15.3      3.96
O SRCPARAM  BLR8080   2.45     60.7    439      12.3      3.96

* PILEON & PILEOF: 200 FT X 200 FT
* CNVON & CNVOF: 88 FT HGT; 120 FT WIDTH
*
O SRCPARAM  PILEON   0.00000339  5.0  61.0  61.0
O SRCPARAM  CNVON1   0.099       26.8  17.0  12.5
O SRCPARAM  CNVON2   0.099       26.8  17.0  12.5
O SRCPARAM  CNVON3   0.099       26.8  17.0  12.5
O SRCPARAM  CNVON4   0.099       26.8  17.0  12.5

O SRCPARAM  PILEOF   0.00000123  5.0  61.0  61.0
O SRCPARAM  CNVOF1   0.0645      26.8  17.0  12.5
O SRCPARAM  CNVOF2   0.0645      26.8  17.0  12.5
O SRCPARAM  CNVOF3   0.0645      26.8  17.0  12.5
O SRCPARAM  CNVOF4   0.0645      26.8  17.0  12.5

O SRCPARAM  S13    0.0076    39.6      316.5       0.01         0.42
O SRCPARAM  S14    0.0076    39.6      316.5       0.01         0.42
O SRCPARAM  S15    0.0076    39.6      316.5       0.01         0.42
O SRCPARAM  S16    0.0160    16.8      311.0      10.50         0.61

O SRCPARAM  BLR3      -3.59    64.9     330      14.2     2.44
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```
SO SRCPARAM  PILEONB    -0.00000187  5.0  61.0  61.0
SO SRCPARAM  CNVON1B    -0.0163      26.8  17.0  12.5
SO SRCPARAM  CNVON2B    -0.0163      26.8  17.0  12.5
SO SRCPARAM  CNVON3B    -0.0163      26,8  17.0  12.5
SO SRCPARAM  CNVON4B    -0.0163      26.8  17.0  12.5

SO SRCPARAM  PILEOFB    -0.00000276  5.0  61.0  61.0
SO SRCPARAM  CNVOF1B    -0.0007      26.8  17.0  12.5
SO SRCPARAM  CNVOF2B    -0.0007      26.8  17.0  12.5
SO SRCPARAM  CNVOF3B    -0.0007      26.8  17.0  12.5
SO SRCPARAM  CNVOF4B    -0.0007      26.8  17.0  12.5


SO BUILDHGT BLR8080-BLR8100       29.87   21.03   21.03   21.03   21.03   21.03
SO BUILDHGT BLR8080-BLR8100       21.03   21.03   21.03   21.03   26.67   26.67
SO BUILDHGT BLR8080-BLR8100       26.67   26.67   29.87   29.87   25.30   25.30
SO BUILDHGT BLR8080-BLR8100       29.87   21.03   21.03   21.03   21.03   21.03
SO BUILDHGT BLR8080-BLR8100       21.03   21.03   21.03   21.03   26.67   26.67
SO BUILDHGT BLR8080-BLR8100       26.67   26.67   29.87   29.87   29.87   25.30
SO BUILDWID BLR8080-BLR8100       22.52   24.06   25.28   25.72   25.38   24.27
SO BUILDWID BLR8080-BLR8100       22.42   22.34   24.08   25.09   40.07   66.68
SO BUILDWID BLR8080-BLR8100       31.14   31.17   27.37   26.43   73.92   69.74
SO BUILDWID BLR8080-BLR8100       22.52   24.06   25.28   25.72   25.38   24.27
SO BUILDWID BLR8080-BLR8100       22.42   22.34   24.08   25.09   40.07   30.65
SO BUILDWID BLR8080-BLR8100       31.14   30.69   27.37   26.43   22.52   69.74
SO BUILDLEN BLR8080-BLR8100       30.73   25.34   24.82   23.54   21.55   18.90
SO BUILDLEN BLR8080-BLR8100       15.68   16.30   19.51   22.12   61.75   92.90
SO BUILDLEN BLR8080-BLR8100       68.20   68.35   33.25   32.48   41.83   32.31
SO BUILDLEN BLR8080-BLR8100       30.73   25.34   24.82   23.54   21.55   18.90
SO BUILDLEN BLR8080-BLR8100       15.68   16.30   19.51   22.12   61.75   29.31
SO BUILDLEN BLR8080-BLR8100       30.69   31.14   33.25   32.48   30.73   32.31
SO XBADJ    BLR8080-BLR8100      -75.00  -29.25  -26.62  -23.18  -19.03  -14.31
SO XBADJ    BLR8080-BLR8100       -9.15   -5.88   -3.96   -1.93   51.96   26.44
SO XBADJ    BLR8080-BLR8100       53.15   51.32   33.25   46.48   48.25   46.42
SO XBADJ    BLR8080-BLR8100       44.27    3.91    1.80   -0.36   -2.51   -4.59
SO XBADJ    BLR8080-BLR8100       -6.53  -10.42  -15.54  -20.19 -113.71 -119.35
SO XBADJ    BLR8080-BLR8100     -121.35 -119.67   33.25  -78.96  -78.98  -78.73
SO YBADJ    BLR8080-BLR8100      -22.15  -12.20  -14.89  -17.13  -18.85  -20.00
SO YBADJ    BLR8080-BLR8100      -20.54  -20.46  -19.75  -18.45  -29.24  -31.74
SO YBADJ    BLR8080-BLR8100        1.69   19.84   33.25  -10.63   26.12   37.37
SO YBADJ    BLR8080-BLR8100       22.15   12.20   14.89   17.13   18.85   20.00
SO YBADJ    BLR8080-BLR8100       20.54   20.46   19.75   18.45   29.24   16.74
SO YBADJ    BLR8080-BLR8100       -1.69  -20.08   33.25   10.63   -0.42  -37.37
**
SO BUILDHGT S13        45.72    45.72    45.72    45.72    41.45    41.45
SO BUILDHGT S13        39.62    45.72    39.62    41.45    41.45    45.72
SO BUILDHGT S13        45.72    45.72    45.72    45.72    45.72    45.72
SO BUILDHGT S13        45.72    45.72    45.72    45.72    41.45    41.45
SO BUILDHGT S13        39.62    45.72    39.62    41.45    41.45    45.72
SO BUILDHGT S13        45.72    45.72    45.72    45.72    45.72    45.72
SO BUILDWID S13        43.57    43.77    42.64    40.22    52.63    42.42
SO BUILDWID S13        74.18    22.27    79.52    46.59    56.20    41.34
SO BUILDWID S13        43.25    43.85    43.11    41.07    39.23    42.04
SO BUILDWID S13        43.57    43.77    42.64    40.22    52.63    42.42
SO BUILDWID S13        74.18    22.27    79.52    46.59    56.20    41.34
SO BUILDWID S13        43.25    43.85    43.11    41.07    39.23    42.04
SO BUILDLEN S13        33.85    38.17    41.34    43.25    73.88    75.46
SO BUILDLEN S13        74.75    39.23    75.33    75.14    72.66    42.64
SO BUILDLEN S13        40.22    36.58    31.82    26.10    22.27    28.49
SO BUILDLEN S13        33.85    38.17    41.34    43.25    73.88    75.46
SO BUILDLEN S13        74.75    39.23    75.33    75.14    72.66    42.64
SO BUILDLEN S13        40.22    36.58    31.82    26.10    22.27    28.49
SO XBADJ    S13       -15.34   -12.80    -9.87    -6.64   -33.24   -32.03
SO XBADJ    S13       -29.84     6.52   -27.21   -26.12   -24.23     3.73
SO XBADJ    S13         2.68     1.56     0.38    -0.80    -3.31   -11.08
SO XBADJ    S13       -18.51   -25.38   -31.47   -36.62   -40.64   -43.44
SO XBADJ    S13       -44.91   -45.75   -48.12   -49.02   -48.43   -46.37
SO XBADJ    S13       -42.90   -38.13   -32.20   -25.30   -18.96   -17.42
SO YBADJ    S13       -27.24   -26.55   -25.05   -22.79   -11.82   -10.99
SO YBADJ    S13       -31.46    -7.83   -28.68    -4.79    -2.72    10.80
SO YBADJ    S13        14.99    18.72    21.88    24.38    26.13    27.10
SO YBADJ    S13        27.24    26.55    25.05    22.79    11.82    10.99
SO YBADJ    S13        31.46     7.83    28.68     4.79     2.72   -10.80
SO YBADJ    S13       -14.99   -18.72   -21.88   -24.38   -26.13   -27.10


SO BUILDHGT S14        45.72    45.72    45.72    45.72    41.45    41.45
SO BUILDHGT S14        39.62    45.72    39.62    41.45    41.45    45.72
SO BUILDHGT S14        45.72    45.72    45.72    45.72    45.72    45.72
SO BUILDHGT S14        45.72    45.72    45.72    45.72    41.45    41.45
SO BUILDHGT S14        39.62    45.72    39.62    41.45    41.45    45.72
SO BUILDHGT S14        45.72    45.72    45.72    45.72    45.72    45.72
SO BUILDWID S14        42.64    42.64    42.64    40.22    52.63    42.42
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SO	BUILDWID	S14	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S14	42.64	42.64	42.64	41.07	39.23	42.04
SO	BUILDWID	S14	42.64	42.64	42.64	40.22	52.63	42.42
SO	BUILDWID	S14	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S14	42.64	42.64	42.64	41.07	39.23	42.04
SO	BUILDLEN	S14	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S14	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S14	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S14	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S14	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S14	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S14	33.85	38.17	-2.73	1.77	-23.82	-21.88
SO	XBADJ	S14	-19.27	17.18	-16.78	-16.23	-15.18	11.66
SO	XBADJ	S14	40.22	36.58	31.82	0.68	-3.68	-13.30
SO	XBADJ	S14	33.85	38.17	-38.61	-45.02	-50.07	-53.59
SO	XBADJ	S14	-55.48	-56.41	-58.55	-58.91	-57.48	-54.30
SO	XBADJ	S14	40.22	36.58	31.82	-26.78	-18.59	-15.20
SO	YBADJ	S14	33.85	38.17	-32.98	-29.36	-16.83	-14.29
SO	YBADJ	S14	-32.95	-7.45	-26.46	-0.79	2.93	17.94
SO	YBADJ	S14	40.22	36.58	31.82	34.94	36.80	37.53
SO	YBADJ	S14	33.85	38.17	32.98	29.36	16.83	14.29
SO	YBADJ	S14	32.95	7.45	26.46	0.79	-2.93	-17.94
SO	YBADJ	S14	40.22	36.58	31.82	-34.94	-36.80	-37.53

SO	BUILDHGT	S15	41.45	41.45	41.45	41.45	41.45	41.45
SO	BUILDHGT	S15	39.62	45.72	39.62	41.45	41.45	41.45
SO	BUILDHGT	S15	41.45	41.45	41.45	41.45	41.45	41.45
SO	BUILDHGT	S15	41.45	41.45	41.45	41.45	41.45	41.45
SO	BUILDHGT	S15	39.62	45.72	39.62	41.45	41.45	41.45
SO	BUILDHGT	S15	41.45	41.45	41.45	41.45	41.45	41.45
SO	BUILDWID	S15	75.14	72.66	41.51	41.51	52.63	42.42
SO	BUILDWID	S15	74.18	22.27	79.52	46.59	56.20	41.51
SO	BUILDWID	S15	41.51	41.51	75.46	74.75	73.23	75.33
SO	BUILDWID	S15	75.14	72.66	41.51	41.51	52.63	42.42
SO	BUILDWID	S15	74.18	22.27	79.52	46.59	56.20	41.51
SO	BUILDWID	S15	41.51	41.51	75.46	74.75	73.23	75.33
SO	BUILDLEN	S15	46.59	56.20	41.34	43.25	73.88	75.46
SO	BUILDLEN	S15	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S15	40.22	36.58	42.42	30.92	23.46	35.56
SO	BUILDLEN	S15	46.59	56.20	41.34	43.25	73.88	75.46
SO	BUILDLEN	S15	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S15	40.22	36.58	42.42	30.92	23.46	35.56
SO	XBADJ	S15	-19.52	-18.71	41.34	43.25	-13.05	-10.28
SO	XBADJ	S15	-7.20	29.36	-4.85	-4.92	-4.85	42.64
SO	XBADJ	S15	40.22	36.58	-3.15	-2.45	-4.11	-15.83
SO	XBADJ	S15	-27.07	-37.49	41.34	43.25	-60.83	-65.18
SO	XBADJ	S15	-67.55	-68.60	-70.48	-70.21	-67.82	42.64
SO	XBADJ	S15	40.22	36.58	-39.27	-28.47	-19.35	-19.73
SO	YBADJ	S15	-32.64	-31.48	41.34	43.25	-22.55	-18.06
SO	YBADJ	S15	-34.64	-7.03	-23.93	3.78	9.39	42.64
SO	YBADJ	S15	40.22	36.58	27.45	30.17	31.98	32.81
SO	YBADJ	S15	32.64	31.49	41.34	43.25	22.55	18.06
SO	YBADJ	S15	34.64	7.03	23.93	-3.78	-9.39	42.64
SO	YBADJ	S15	40.22	36.58	-27.45	-30.17	-31.98	-32.81

SO	BUILDHGT	S16	45.72	45.72	45.72	39.62	39.62	39.62
SO	BUILDHGT	S16	39.62	30.48	39.62	41.45	41.45	45.72
SO	BUILDHGT	S16	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S16	45.72	45.72	45.72	39.62	39.62	39.62
SO	BUILDHGT	S16	39.62	30.48	39.62	41.45	41.45	45.72
SO	BUILDHGT	S16	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S16	43.57	43.77	42.64	80.66	80.94	78.76
SO	BUILDWID	S16	74.18	32.64	79.52	46.59	56.20	41.34
SO	BUILDWID	S16	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S16	43.57	43.77	42.64	80.66	80.94	78.76
SO	BUILDWID	S16	74.18	32.64	79.52	46.59	56.20	41.34
SO	BUILDWID	S16	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S16	33.85	38.17	41.34	88.71	84.24	77.21
SO	BUILDLEN	S16	74.75	30.22	75.33	75.14	72.66	42.64
SO	BUILDLEN	S16	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S16	33.85	38.17	41.34	88.71	84.24	77.21
SO	BUILDLEN	S16	74.75	30.22	75.33	75.14	72.66	42.64
SO	BUILDLEN	S16	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S16	29.19	21.94	14.02	-39.78	-43.23	-45.37
SO	XBADJ	S16	-53.05	-46.29	-71.19	-78.63	-83.68	-60.84
SO	XBADJ	S16	-65.06	-67.29	-67.48	-65.62	-63.12	-64.05
SO	XBADJ	S16	-63.04	-60.11	-55.36	-48.93	-41.01	-31.84
SO	XBADJ	S16	-21.70	16.07	-4.14	3.49	11.01	18.20
SO	XBADJ	S16	24.84	30.72	35.66	39.53	40.84	35.56
SO	YBADJ	S16	25.27	32.90	39.52	45.74	42.87	38.70
SO	YBADJ	S16	33.36	0.22	24.29	39.75	32.01	34.69
SO	YBADJ	S16	27.30	19.08	10.28	1.17	-7.98	-16.88

```
SO YBADJ    S16        -25.27  -32.90  -39.52  -45.74  -42.87  -38.70
SO YBADJ    S16        -33.36   -0.22  -24.29  -39.75  -32.01  -34.69
SO YBADJ    S16        -27.30  -19.08  -10.28   -1.17    7.98   16.88

SO BUILDHGT BLR3         26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR3         26.67   26.67   26.67   26.67   26.67   21.03
   BUILDHGT BLR3         20.73   20.73   20.73   20.50   20.50   20.50
   BUILDHGT BLR3         26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR3         26.67   26.67   26.67   41.45   41.45   41.45
SO BUILDHGT BLR3         28.55   28.55   28.55   28.55   21.03   20.73
SO BUILDWID BLR3         55.65   27.03   29.31   30.69   31.14   30.65
SO BUILDWID BLR3         29.22   26.91   49.07   26.91   40.07   85.57
SO BUILDWID BLR3        105.13  109.15   55.67   43.68   39.97   35.05
SO BUILDWID BLR3         55.65   27.03   29.31   30.69   31.14   30.65
SO BUILDWID BLR3         29.22   26.91   49.07   46.59   56.20   64.10
SO BUILDWID BLR3         62.36   63.03   61.79   58.68   32.97   24.69
SO BUILDLEN BLR3         45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR3         27.03   23.94   47.85   23.94   61.75   93.35
SO BUILDLEN BLR3        111.89  108.40   71.74   41.49   37.00   31.39
SO BUILDLEN BLR3         45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR3         27.03   23.94   47.85   75.14   72.66   67.98
SO BUILDLEN BLR3         71.65   72.63   71.40   68.00   76.49   68.58
SO XBADJ    BLR3        -39.44  -44.46  -48.13  -50.33  -51.01  -50.14
SO XBADJ    BLR3        -47.74  -43.89  -66.45  -36.48  -67.86   39.30
SO XBADJ    BLR3         28.36   35.20   40.96    1.38    1.17    0.91
SO XBADJ    BLR3         -5.82   15.24   17.48   19.19   20.32   20.83
SO XBADJ    BLR3         20.70   19.95   18.59 -213.31 -211.14 -202.55
SO XBADJ    BLR3       -140.25 -143.59 -142.57 -137.22 -124.00 -118.87
SO YBADJ    BLR3         40.37   19.63   14.14    8.23    2.07   -4.15
SO YBADJ    BLR3        -10.25  -16.04   -8.69  -25.99  -24.43  -50.41
SO YBADJ    BLR3        -41.83  -25.80  -36.09   12.22   15.88   19.05
SO YBADJ    BLR3        -40.37  -19.63  -14.14   -8.23   -2.07    4.15
SO YBADJ    BLR3         10.25   16.04    8.69   10.02  -20.65  -50.69
SO YBADJ    BLR3         20.44    2.75  -15.03  -32.35  -15.06   -7.16

SO EMISFACT BLR3    MONTH 1 1 1 1 1 0 0 0 0 0 1 1

SO EMISFACT PILEON  MONTH 1 1 1 1 1 0 0 0 0 0 1 1
SO EMISFACT PILEOF  MONTH 0 0 0 0 0 1 1 1 1 1 0 0

SO EMISFACT CNVON1 MONTH 1 1 1 1 1 0 0 0 0 0 1 1
SO EMISFACT CNVON2 MONTH 1 1 1 1 1 0 0 0 0 0 1 1
   EMISFACT CNVON3 MONTH 1 1 1 1 1 0 0 0 0 0 1 1
   EMISFACT CNVON4 MONTH 1 1 1 1 1 0 0 0 0 0 1 1

SO EMISFACT CNVOF1 MONTH 0 0 0 0 0 1 1 1 1 1 0 0
SO EMISFACT CNVOF2 MONTH 0 0 0 0 0 1 1 1 1 1 0 0
SO EMISFACT CNVOF3 MONTH 0 0 0 0 0 1 1 1 1 1 0 0
SO EMISFACT CNVOF4 MONTH 0 0 0 0 0 1 1 1 1 1 0 0

SO EMISFACT PILEONB  MONTH 1 1 1 1 1 0 0 0 0 0 1 1
SO EMISFACT PILEOFB  MONTH 0 0 0 0 0 1 1 1 1 1 0 0

SO EMISFACT CNVON1B MONTH 1 1 1 1 1 0 0 0 0 0 1 1
SO EMISFACT CNVON2B MONTH 1 1 1 1 1 0 0 0 0 0 1 1
SO EMISFACT CNVON3B MONTH 1 1 1 1 1 0 0 0 0 0 1 1
SO EMISFACT CNVON4B MONTH 1 1 1 1 1 0 0 0 0 0 1 1

SO EMISFACT CNVOF1B MONTH 0 0 0 0 0 1 1 1 1 1 0 0
SO EMISFACT CNVOF2B MONTH 0 0 0 0 0 1 1 1 1 1 0 0
SO EMISFACT CNVOF3B MONTH 0 0 0 0 0 1 1 1 1 1 0 0
SO EMISFACT CNVOF4B MONTH 0 0 0 0 0 1 1 1 1 1 0 0

**
SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
**
SO SRCGROUP 8080 BLR8080
SO SRCGROUP 8100 BLR8100

SO SRCGROUP 38080 BLR8080 S13-S16 BLR3
SO SRCGROUP 38080 PILEON CNVON1-CNVON4 PILEOF CNVOF1-CNVOF4
SO SRCGROUP 38080 PILEONB CNVON1B-CNVON4B PILEOFB CNVOF1B-CNVOF4B

SO SRCGROUP 38100 BLR8100 S13-S16 BLR3
SO SRCGROUP 38100 PILEON CNVON1-CNVON4 PILEOF CNVOF1-CNVOF4
SO SRCGROUP 38100 PILEONB CNVON1B-CNVON4B PILEOFB CNVOF1B-CNVOF4B


   FINISHED

RE STARTING
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG   0.0   0.0
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RE GRIDPOLR POL DIST  2000 3000 4000 5000 7000 10000 15000 20000 25000
RE GRIDPOLR POL GDIR   36  10.00  10.00
RE GRIDPOLR POL END
RE DISCPOLR  BLR4        463.          10.
RE DISCPOLR  BLR4        600.          10.
RE DISCPOLR  BLR4        900.          10.
RE DISCPOLR  BLR4       1200.          10.
RE DISCPOLR  BLR4       1500.          10.
RE DISCPOLR  BLR4       1800.          10.
RE DISCPOLR  BLR4        485.          20.
RE DISCPOLR  BLR4        600.          20.
RE DISCPOLR  BLR4        900.          20.
RE DISCPOLR  BLR4       1200.          20.
RE DISCPOLR  BLR4       1500.          20.
RE DISCPOLR  BLR4       1800.          20.
RE DISCPOLR  BLR4        527.          30.
RE DISCPOLR  BLR4        600.          30.
RE DISCPOLR  BLR4        900.          30.
RE DISCPOLR  BLR4       1200.          30.
RE DISCPOLR  BLR4       1500.          30.
RE DISCPOLR  BLR4       1800.          30.
RE DISCPOLR  BLR4        538.          32.
RE DISCPOLR  BLR4        550.          34.
RE DISCPOLR  BLR4        564.          36.
RE DISCPOLR  BLR4        579.          38.
RE DISCPOLR  BLR4        595.          40.
RE DISCPOLR  BLR4        600.          40.
RE DISCPOLR  BLR4        900.          40.
RE DISCPOLR  BLR4       1200.          40.
RE DISCPOLR  BLR4       1500.          40.
RE DISCPOLR  BLR4       1800.          40.
RE DISCPOLR  BLR4        614.          42.
RE DISCPOLR  BLR4        634.          44.
RE DISCPOLR  BLR4        656.          46.
RE DISCPOLR  BLR4        681.          48.
RE DISCPOLR  BLR4        709.          50.
RE DISCPOLR  BLR4        900.          50.
RE DISCPOLR  BLR4       1200.          50.
RE DISCPOLR  BLR4       1500.          50.
RE DISCPOLR  BLR4       1800.          50.
RE DISCPOLR  BLR4        741.          52.
RE DISCPOLR  BLR4        776.          54.
RE DISCPOLR  BLR4        815.          56.
RE DISCPOLR  BLR4        861.          58.
RE DISCPOLR  BLR4        912.          60.
RE DISCPOLR  BLR4       1200.          60.
RE DISCPOLR  BLR4       1500.          60.
RE DISCPOLR  BLR4       1800.          60.
RE DISCPOLR  BLR4        971.          62.
RE DISCPOLR  BLR4       1040.          64.
RE DISCPOLR  BLR4       1121.          66.
RE DISCPOLR  BLR4       1217.          68.
RE DISCPOLR  BLR4       1333.          70.
RE DISCPOLR  BLR4       1500.          70.
RE DISCPOLR  BLR4       1800.          70.
RE DISCPOLR  BLR4       1476.          72.
RE DISCPOLR  BLR4       1654.          74.
RE DISCPOLR  BLR4       1885.          76.
RE DISCPOLR  BLR4       2062.          78.
RE DISCPOLR  BLR4       2048.          80.
RE DISCPOLR  BLR4       2037.          82.
RE DISCPOLR  BLR4       2028.          84.
RE DISCPOLR  BLR4       2022.          86.
RE DISCPOLR  BLR4       2018.          88.
RE DISCPOLR  BLR4       2017.          90.
RE DISCPOLR  BLR4       2018.          92.
RE DISCPOLR  BLR4       2022.          94.
RE DISCPOLR  BLR4       2028.          96.
RE DISCPOLR  BLR4       2037.          98.
RE DISCPOLR  BLR4       1785.         100.
RE DISCPOLR  BLR4       1800.         100.
RE DISCPOLR  BLR4       1491.         102.
RE DISCPOLR  BLR4       1281.         104.
RE DISCPOLR  BLR4       1125.         106.
RE DISCPOLR  BLR4       1003.         108.
RE DISCPOLR  BLR4        906.         110.
RE DISCPOLR  BLR4       1200.         110.
RE DISCPOLR  BLR4       1500.         110.
RE DISCPOLR  BLR4       1800.         110.
RE DISCPOLR  BLR4        828.         112.
RE DISCPOLR  BLR4        762.         114.
RE DISCPOLR  BLR4        707.         116.
RE DISCPOLR  BLR4        663.         118.
RE DISCPOLR  BLR4        675.         120.
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RE	DISCPOLR	BLR4	900.	120.
RE	DISCPOLR	BLR4	1200.	120.
RE	DISCPOLR	BLR4	1500.	120.
RE	DISCPOLR	BLR4	1800.	120.
RE	DISCPOLR	BLR4	690.	122.
RE	DISCPOLR	BLR4	706.	124.
RE	DISCPOLR	BLR4	723.	126.
RE	DISCPOLR	BLR4	742.	128.
RE	DISCPOLR	BLR4	764.	130.
RE	DISCPOLR	BLR4	900.	130.
RE	DISCPOLR	BLR4	1200.	130.
RE	DISCPOLR	BLR4	1500.	130.
RE	DISCPOLR	BLR4	1800.	130.
RE	DISCPOLR	BLR4	787.	132.
RE	DISCPOLR	BLR4	813.	134.
RE	DISCPOLR	BLR4	842.	136.
RE	DISCPOLR	BLR4	874.	138.
RE	DISCPOLR	BLR4	910.	140.
RE	DISCPOLR	BLR4	1200.	140.
RE	DISCPOLR	BLR4	1500.	140.
RE	DISCPOLR	BLR4	1800.	140.
RE	DISCPOLR	BLR4	950.	142.
RE	DISCPOLR	BLR4	995.	144.
RE	DISCPOLR	BLR4	1046.	146.
RE	DISCPOLR	BLR4	1104.	148.
RE	DISCPOLR	BLR4	1170.	150.
RE	DISCPOLR	BLR4	1200.	150.
RE	DISCPOLR	BLR4	1500.	150.
RE	DISCPOLR	BLR4	1800.	150.
RE	DISCPOLR	BLR4	1246.	152.
RE	DISCPOLR	BLR4	1244.	154.
RE	DISCPOLR	BLR4	1224.	156.
RE	DISCPOLR	BLR4	1206.	158.
RE	DISCPOLR	BLR4	1190.	160.
RE	DISCPOLR	BLR4	1200.	160.
RE	DISCPOLR	BLR4	1500.	160.
RE	DISCPOLR	BLR4	1800.	160.
RE	DISCPOLR	BLR4	1176	162.
RE	DISCPOLR	BLR4	1163.	164.
RE	DISCPOLR	BLR4	1152.	166.
RE	DISCPOLR	BLR4	1143.	168.
RE	DISCPOLR	BLR4	1135.	170.
RE	DISCPOLR	BLR4	1200.	170.
RE	DISCPOLR	BLR4	1500.	170.
RE	DISCPOLR	BLR4	1800.	170.
RE	DISCPOLR	BLR4	1129	172.
RE	DISCPOLR	BLR4	1124.	174.
RE	DISCPOLR	BLR4	1121.	176.
RE	DISCPOLR	BLR4	1119.	178.
RE	DISCPOLR	BLR4	1118.	180.
RE	DISCPOLR	BLR4	1200.	180.
RE	DISCPOLR	BLR4	1500.	180.
RE	DISCPOLR	BLR4	1800.	180.
RE	DISCPOLR	BLR4	1119	182.
RE	DISCPOLR	BLR4	1121.	184.
RE	DISCPOLR	BLR4	1124.	186.
RE	DISCPOLR	BLR4	1129.	188.
RE	DISCPOLR	BLR4	1135.	190.
RE	DISCPOLR	BLR4	1200.	190.
RE	DISCPOLR	BLR4	1500.	190.
RE	DISCPOLR	BLR4	1800.	190.
RE	DISCPOLR	BLR4	1143	192.
RE	DISCPOLR	BLR4	1152.	194.
RE	DISCPOLR	BLR4	1163.	196.
RE	DISCPOLR	BLR4	1176.	198.
RE	DISCPOLR	BLR4	1178.	200.
RE	DISCPOLR	BLR4	1200.	200.
RE	DISCPOLR	BLR4	1500.	200.
RE	DISCPOLR	BLR4	1800.	200.
RE	DISCPOLR	BLR4	1076	202.
RE	DISCPOLR	BLR4	991.	204.
RE	DISCPOLR	BLR4	919.	206.
RE	DISCPOLR	BLR4	858.	208.
RE	DISCPOLR	BLR4	806.	210.
RE	DISCPOLR	BLR4	900.	210.
RE	DISCPOLR	BLR4	1200.	210.
RE	DISCPOLR	BLR4	1500.	210.
RE	DISCPOLR	BLR4	1800.	210.
RE	DISCPOLR	BLR4	760	212.
RE	DISCPOLR	BLR4	721.	214.
RE	DISCPOLR	BLR4	686.	216.
RE	DISCPOLR	BLR4	655.	218.
RE	DISCPOLR	BLR4	627.	220.
RE	DISCPOLR	BLR4	900.	220.

RE	DISCPOLR	BLR4	1200.	220.
RE	DISCPOLR	BLR4	1500.	220.
RE	DISCPOLR	BLR4	1800.	220.
RE	DISCPOLR	BLR4	602	222.
RE	DISCPOLR	BLR4	580.	224.
RE	DISCPOLR	BLR4	560.	226.
RE	DISCPOLR	BLR4	542.	228.
RE	DISCPOLR	BLR4	526.	230.
RE	DISCPOLR	BLR4	600.	230.
RE	DISCPOLR	BLR4	900.	230.
RE	DISCPOLR	BLR4	1200.	230.
RE	DISCPOLR	BLR4	1500.	230.
RE	DISCPOLR	BLR4	1800.	230.
RE	DISCPOLR	BLR4	465.	240.
RE	DISCPOLR	BLR4	600.	240.
RE	DISCPOLR	BLR4	900.	240.
RE	DISCPOLR	BLR4	1200.	240.
RE	DISCPOLR	BLR4	1500.	240.
RE	DISCPOLR	BLR4	1800.	240.
RE	DISCPOLR	BLR4	429.	250.
RE	DISCPOLR	BLR4	600.	250.
RE	DISCPOLR	BLR4	900.	250.
RE	DISCPOLR	BLR4	1200.	250.
RE	DISCPOLR	BLR4	1500.	250.
RE	DISCPOLR	BLR4	1800.	250.
RE	DISCPOLR	BLR4	409.	260.
RE	DISCPOLR	BLR4	600.	260.
RE	DISCPOLR	BLR4	900.	260.
RE	DISCPOLR	BLR4	1200.	260.
RE	DISCPOLR	BLR4	1500.	260.
RE	DISCPOLR	BLR4	1800.	260.
RE	DISCPOLR	BLR4	403.	270.
RE	DISCPOLR	BLR4	600.	270.
RE	DISCPOLR	BLR4	900.	270.
RE	DISCPOLR	BLR4	1200.	270.
RE	DISCPOLR	BLR4	1500.	270.
RE	DISCPOLR	BLR4	1800.	270.
RE	DISCPOLR	BLR4	409.	280.
RE	DISCPOLR	BLR4	600.	280.
RE	DISCPOLR	BLR4	900.	280.
RE	DISCPOLR	BLR4	1200.	280.
RE	DISCPOLR	BLR4	1500.	280.
RE	DISCPOLR	BLR4	1800.	280.
RE	DISCPOLR	BLR4	429.	290.
RE	DISCPOLR	BLR4	600.	290.
RE	DISCPOLR	BLR4	900.	290.
RE	DISCPOLR	BLR4	1200.	290.
RE	DISCPOLR	BLR4	1500.	290.
RE	DISCPOLR	BLR4	1800.	290.
RE	DISCPOLR	BLR4	465.	300.
RE	DISCPOLR	BLR4	600.	300.
RE	DISCPOLR	BLR4	900.	300.
RE	DISCPOLR	BLR4	1200.	300.
RE	DISCPOLR	BLR4	1500.	300.
RE	DISCPOLR	BLR4	1800.	300.
RE	DISCPOLR	BLR4	526.	310.
RE	DISCPOLR	BLR4	600.	310.
RE	DISCPOLR	BLR4	900.	310.
RE	DISCPOLR	BLR4	1200.	310.
RE	DISCPOLR	BLR4	1500.	310.
RE	DISCPOLR	BLR4	1800.	310.
RE	DISCPOLR	BLR4	542	312.
RE	DISCPOLR	BLR4	560.	314.
RE	DISCPOLR	BLR4	580.	316.
RE	DISCPOLR	BLR4	602.	318.
RE	DISCPOLR	BLR4	595.	320.
RE	DISCPOLR	BLR4	600.	320.
RE	DISCPOLR	BLR4	900.	320.
RE	DISCPOLR	BLR4	1200.	320.
RE	DISCPOLR	BLR4	1500.	320.
RE	DISCPOLR	BLR4	1800.	320.
RE	DISCPOLR	BLR4	579	322.
RE	DISCPOLR	BLR4	564.	324.
RE	DISCPOLR	BLR4	550.	326.
RE	DISCPOLR	BLR4	538.	328.
RE	DISCPOLR	BLR4	527.	330.
RE	DISCPOLR	BLR4	600.	330.
RE	DISCPOLR	BLR4	900.	330.
RE	DISCPOLR	BLR4	1200.	330.
RE	DISCPOLR	BLR4	1500.	330.
RE	DISCPOLR	BLR4	1800.	330.
RE	DISCPOLR	BLR4	485.	340.
RE	DISCPOLR	BLR4	600.	340.
RE	DISCPOLR	BLR4	900.	340.

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RE DISCPOLR  BLR4      1200.       340.
RE DISCPOLR  BLR4      1500.       340.
RE DISCPOLR  BLR4      1800.       340.
RE DISCPOLR  BLR4       463.       350.
RE DISCPOLR  BLR4       600.       350.
RE DISCPOLR  BLR4       900.       350.
RE DISCPOLR  BLR4      1200.       350.
RE DISCPOLR  BLR4      1500.       350.
RE DISCPOLR  BLR4      1800.       350.
RE DISCPOLR  BLR4       456.       360.
RE DISCPOLR  BLR4       600.       360.
RE DISCPOLR  BLR4       900.       360.
RE DISCPOLR  BLR4      1200.       360.
RE DISCPOLR  BLR4      1500.       360.
RE DISCPOLR  BLR4      1800.       360.
RE FINISHED

ME STARTING
ME INPUTFIL P:\MET\PBIPBI87.MET
ME ANEMHGHT    33 FEET
ME SURFDATA  12844  1987        PALM_BEACH_INTER
ME UAIRDATA  12844  1987        PALM_BEACH_INTER
ME WINDCATS    1.54    3.09    5.14    8.23   10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
```

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :PMRAN.088
PRIME OUTPUT FILE NUMBER 2 :PMRAN.090
First title for last output file is: 1988 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- NO2 SIL 03/27/03 REFINED
Second title for last output file is: BLR 8 100 & 80% LOAD ANNUAL WITH BAGASSE HANDLING & REF. SRCE

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	8100				
Annual					
	1988	0.00055	280.00	600.00	88123124
	1990	0.00049	280.00	600.00	90123124
SOURCE GROUP ID:	38100				
Annual					
	1988	0.95025	270.00	403.00	88123124
	1990	0.96687	270.00	403.00	90123124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :PMSAN.087
PRIME OUTPUT FILE NUMBER 2 :PMSAN.088
PRIME OUTPUT FILE NUMBER 3 :PMSAN.089
PRIME OUTPUT FILE NUMBER 4 :PMSAN.090
PRIME OUTPUT FILE NUMBER 5 :PMSAN.091
First title for last output file is: 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- NO2 SIL 03/25/03
Second title for last output file is: BLR 8 100 & 80% LOAD ANNUAL WITH BAGASSE HANDLING & REF. SRCE

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	8100				
Annual					
	1987	0.04746	300.00	4000.00	87123124
	1988	0.04396	270.00	3000.00	88123124
	1989	0.04947	300.00	4000.00	89123124
	1990	0.05712	300.00	4000.00	90123124
	1991	0.05368	300.00	4000.00	91123124
SOURCE GROUP ID:	38100				
Annual					
	1987	0.77025	300.00	465.00	87123124
	1988	0.95025	270.00	403.00	88123124
	1989	0.87689	300.00	465.00	89123124
	1990	0.96687	270.00	403.00	90123124
	1991	0.90077	300.00	465.00	91123124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

```
CO STARTING
CO TITLEONE 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- NO2 SIL  03/25/03
CO TITLETWO BLR 8 100 & 80% LOAD ANNUAL        WITH BAGASSE HANDLING & REF. SRCE
CO MODELOPT DFAULT CONC   RURAL NOCMPL
CO AVERTIME PERIOD
CO POLLUTID GEN
CO DCAYCOEF     .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING
**
** BLR 4 ORIGIN FOR GRID INCLUDING DISCRETE RECP
**
** Source Location Cards:
**            SRCID     SRCTYP       XS      YS
**
SO LOCATION  BLR4      POINT         0.0     0.0
SO LOCATION  BLR8100   POINT       -82.0    51.0

SO LOCATION  PILEON    AREA        -79.3    99.1
SO LOCATION  CNVON1   VOLUME      -67.1  -25.9
SO LOCATION  CNVON2   VOLUME      -30.5  -25.9
SO LOCATION  CNVON3   VOLUME        6.1  -25.9
SO LOCATION  CNVON4   VOLUME       42.7  -25.9

SO LOCATION  PILEOF    AREA        -79.3    99.1
SO LOCATION  CNVOF1   VOLUME      -67.1  -25.9
SO LOCATION  CNVOF2   VOLUME      -30.5  -25.9
SO LOCATION  CNVOF3   VOLUME        6.1  -25.9
SO LOCATION  CNVOF4   VOLUME       42.7  -25.9

SO LOCATION  S1     POINT          202.63        -47.30        .0000
SO LOCATION  S2     POINT          213.66        -44.95        .0000
SO LOCATION  S3     POINT          213.66        -44.95        .0000
SO LOCATION  S4     POINT          236.02        -40.20        .0000
SO LOCATION  S5     POINT          213.66        -44.95        .0000
SO LOCATION  S6     POINT          213.66        -44.95        .0000
SO LOCATION  S7     POINT          194.24        -45.96        .0000
SO LOCATION  S8     POINT          183.51        -48.24        .0000
SO LOCATION  S9     POINT          172.78        -50.53        .0000
SO LOCATION  S10    POINT          212.04        -59.32        .0000
SO LOCATION  S11    POINT          623.32         65.60        .0000
SO LOCATION  S12    POINT          184.09       -121.35        .0000
SO LOCATION  S13    POINT          189.84        -28.20        .0000
SO LOCATION  S14    POINT          179.41        -30.42        .0000
SO LOCATION  S15    POINT          167.48        -32.95        .0000
SO LOCATION  S16    POINT          233.82        -81.17        .0000

SO LOCATION  S1B    POINT          202.63        -47.30        .0000
SO LOCATION  S2B    POINT          213.66        -44.95        .0000
SO LOCATION  S3B    POINT          213.66        -44.95        .0000
SO LOCATION  S4B    POINT          236.02        -40.20        .0000
SO LOCATION  S5B    POINT          213.66        -44.95        .0000
SO LOCATION  S6B    POINT          213.66        -44.95        .0000
SO LOCATION  S7B    POINT          194.24        -45.96        .0000
SO LOCATION  S8B    POINT          183.51        -48.24        .0000
SO LOCATION  S9B    POINT          172.78        -50.53        .0000
SO LOCATION  S10B   POINT          212.04        -59.32        .0000
SO LOCATION  S11B   POINT          623.32         65.60        .0000
SO LOCATION  S12B   POINT          184.09       -121.35        .0000
SO LOCATION  S13B   POINT          189.84        -28.20        .0000
SO LOCATION  S14B   POINT          179.41        -30.42        .0000
SO LOCATION  S15B   POINT          167.48        -32.95        .0000
SO LOCATION  S16B   POINT          233.82        -81.17        .0000

SO LOCATION  BLR3      POINT       28.96    5.49

SO LOCATION  PILEONB    AREA       -79.3    99.1
SO LOCATION  CNVON1B  VOLUME      -67.1   -25.9
SO LOCATION  CNVON2B  VOLUME      -30.5   -25.9
SO LOCATION  CNVON3B  VOLUME        6.1   -25.9
SO LOCATION  CNVON4B  VOLUME       42.7   -25.9

SO LOCATION  PILEOFB    AREA       -79.3    99.1
SO LOCATION  CNVOF1B  VOLUME      -67.1   -25.9
SO LOCATION  CNVOF2B  VOLUME      -30.5   -25.9
SO LOCATION  CNVOF3B  VOLUME        6.1   -25.9
SO LOCATION  CNVOF4B  VOLUME       42.7   -25.9
**
** Source Parameter Cards:
** POINT:   SRCID        QS       HS      TS       VS       DS
```

```
SO SRCPARAM  BLR4       0.0     45.7  344.3    25.66    2.50
SO SRCPARAM  BLR8100   2.53     60.7   439      12.3    3.96

** PILEON & PILEOF: 200 FT X 200 FT
** CNVON & CNVOF: 88 FT HGT; 120 FT WIDTH
**
SO SRCPARAM  PILEON   0.00000339  5.0  61.0  61.0
SO SRCPARAM  CNVON1   0.099      26.8  17.0  12.5
SO SRCPARAM  CNVON2   0.099      26.8  17.0  12.5
SO SRCPARAM  CNVON3   0.099      26.8  17.0  12.5
SO SRCPARAM  CNVON4   0.099      26.8  17.0  12.5

SO SRCPARAM  PILEOF   0.00000123  5.0  61.0  61.0
SO SRCPARAM  CNVOF1   0.0645     26.8  17.0  12.5
SO SRCPARAM  CNVOF2   0.0645     26.8  17.0  12.5
SO SRCPARAM  CNVOF3   0.0645     26.8  17.0  12.5
SO SRCPARAM  CNVOF4   0.0645     26.8  17.0  12.5

** REFINERY SOURCES
** CHANGE IN EMISSIONS (FUTURE)
**
SO SRCPARAM  S1        0.0081    19.8     293.2      0.01       0.15
SO SRCPARAM  S2        0.0081    19.8     305.4      0.01       0.15
SO SRCPARAM  S3        0.0081    19.8     305.4      0.01       0.15
SO SRCPARAM  S4        0.0259    18.3     324.8      0.01       0.59
SO SRCPARAM  S5        0.00719   22.0     324.8      0.01       0.29
SO SRCPARAM  S6        0.0236    22.0     324.8      0.01       0.59
SO SRCPARAM  S7        0.0072    39.6     316.5      0.01       0.42
SO SRCPARAM  S8        0.0072    39.6     316.5      0.01       0.42
SO SRCPARAM  S9        0.0072    39.6     316.5      0.01       0.42
SO SRCPARAM  S10       0.181     22.9     319.3      0.01       2.23
SO SRCPARAM  S11       0.205      3.1     319.3      0.01       1.46
SO SRCPARAM  S12       0.088      9.1     344.3      6.90       0.61
SO SRCPARAM  S13       0.0072    39.6     316.5      0.01       0.42
SO SRCPARAM  S14       0.0072    39.6     316.5      0.01       0.42
SO SRCPARAM  S15       0.0072    39.6     316.5      0.01       0.42
SO SRCPARAM  S16       0.017     16.8     311.0     10.50       0.61

SO SRCPARAM  S1B      -0.0070    19.8     293.2      0.01       0.15
SO SRCPARAM  S2B      -0.0070    19.8     305.4      0.01       0.15
SO SRCPARAM  S3B      -0.0070    19.8     305.4      0.01       0.15
SO SRCPARAM  S4B      -0.0224    18.3     324.8      0.01       0.59
SO SRCPARAM  S5B      -0.00698   22.0     324.8      0.01       0.29
SO SRCPARAM  S6B      -0.0221    22.0     324.8      0.01       0.59
SO SRCPARAM  S7B      -0.0076    39.6     316.5      0.01       0.42
SO SRCPARAM  S8B      -0.0076    39.6     316.5      0.01       0.42
SO SRCPARAM  S9B      -0.0076    39.6     316.5      0.01       0.42
SO SRCPARAM  S10B     -0.154     22.9     319.3      0.01       2.23
SO SRCPARAM  S11B     -0.091      3.1     319.3      0.01       1.46
SO SRCPARAM  S12B     -0.037      9.1     344.3      6.90       0.61
SO SRCPARAM  S13B     -0.000     39.6     316.5      0.01       0.42
SO SRCPARAM  S14B     -0.000     39.6     316.5      0.01       0.42
SO SRCPARAM  S15B     -0.000     39.6     316.5      0.01       0.42
SO SRCPARAM  S16B     -0.000     16.8     311.0     10.50       0.61

SO SRCPARAM  BLR3     -1.28    64.9    330     14.2    2.44

SO SRCPARAM  PILEONB   -0.00000187  5.0  61.0  61.0
SO SRCPARAM  CNVON1B   -0.0163     26.8  17.0  12.5
SO SRCPARAM  CNVON2B   -0.0163     26.8  17.0  12.5
SO SRCPARAM  CNVON3B   -0.0163     26.8  17.0  12.5
SO SRCPARAM  CNVON4B   -0.0163     26.8  17.0  12.5

SO SRCPARAM  PILEOFB   -0.00000276  5.0  61.0  61.0
SO SRCPARAM  CNVOF1B   -0.0007     26.8  17.0  12.5
SO SRCPARAM  CNVOF2B   -0.0007     26.8  17.0  12.5
SO SRCPARAM  CNVOF3B   -0.0007     26.8  17.0  12.5
SO SRCPARAM  CNVOF4B   -0.0007     26.8  17.0  12.5

**

SO BUILDHGT BLR8100      29.87   21.03   21.03   21.03   21.03   21.03
SO BUILDHGT BLR8100      21.03   21.03   21.03   21.03   26.67   26.67
SO BUILDHGT BLR8100      26.67   26.67   29.87   29.87   25.30   25.30
SO BUILDHGT BLR8100      29.87   21.03   21.03   21.03   21.03   21.03
SO BUILDHGT BLR8100      21.03   21.03   21.03   21.03   26.67   26.67
SO BUILDHGT BLR8100      26.67   26.67   29.87   29.87   29.87   25.30
SO BUILDWID BLR8100      22.52   24.06   25.28   25.72   25.38   24.27
SO BUILDWID BLR8100      22.42   22.34   24.08   25.09   40.07   66.68
SO BUILDWID BLR8100      31.14   31.17   27.37   26.43   73.92   69.74
SO BUILDWID BLR8100      22.52   24.06   25.28   25.72   25.38   24.27
SO BUILDWID BLR8100      22.42   22.34   24.08   25.09   40.07   30.65
SO BUILDWID BLR8100      31.14   30.69   27.37   26.43   22.52   69.74
SO BUILDLEN BLR8100      30.73   25.34   24.82   23.54   21.55   18.90
```

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SO BUILDLEN BLR8100      15.68   16.30   19.51   22.12   61.75   92.90
SO BUILDLEN BLR8100      68.20   68.35   33.25   32.48   41.83   32.31
SO BUILDLEN BLR8100      30.73   25.34   24.82   23.54   21.55   18.90
SO BUILDLEN BLR8100      15.68   16.30   19.51   22.12   61.75   29.31
SO BUILDLEN BLR8100      30.69   31.14   33.25   32.48   30.73   32.31
SO XBADJ    BLR8100     -75.00  -29.25  -26.62  -23.18  -19.03  -14.31
SO XBADJ    BLR8100      -9.15   -5.88   -3.96   -1.93   51.96   26.44
SO XBADJ    BLR8100      53.15   51.32   33.25   46.48   48.25   46.42
SO XBADJ    BLR8100      44.27    3.91    1.80   -0.36   -2.51   -4.59
SO XBADJ    BLR8100      -6.53  -10.42  -15.54  -20.19 -113.71 -119.35
SO XBADJ    BLR8100    -121.35 -119.67   33.25  -78.96  -78.98  -78.73
SO YBADJ    BLR8100     -22.15  -12.20  -14.89  -17.13  -18.85  -20.00
SO YBADJ    BLR8100     -20.54  -20.46  -19.75  -18.45  -29.24  -31.74
SO YBADJ    BLR8100       1.69   19.84   33.25  -10.63   26.12   37.37
SO YBADJ    BLR8100      22.15   12.20   14.89   17.13   18.85   20.00
SO YBADJ    BLR8100      20.54   20.46   19.75   18.45   29.24   16.74
SO YBADJ    BLR8100      -1.69  -20.08   33.25   10.63   -0.42  -37.37

SO BUILDHGT BLR3       26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR3       26.67   26.67   26.67   26.67   26.67   21.03
SO BUILDHGT BLR3       20.73   20.73   20.73   20.50   20.50   20.50
SO BUILDHGT BLR3       26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR3       26.67   26.67   26.67   41.45   41.45   41.45
SO BUILDHGT BLR3       28.55   28.55   28.55   28.55   21.03   20.73
SO BUILDWID BLR3       55.65   27.03   29.31   30.69   31.14   30.65
SO BUILDWID BLR3       29.22   26.91   49.07   26.91   40.07   85.57
SO BUILDWID BLR3      105.13  109.15   55.67   43.68   39.97   35.05
SO BUILDWID BLR3       55.65   27.03   29.31   30.69   31.14   30.65
SO BUILDWID BLR3       29.22   26.91   49.07   46.59   56.20   64.10
SO BUILDWID BLR3       62.36   63.03   61.79   58.68   32.97   24.69
SO BUILDLEN BLR3       45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR3       27.03   23.94   47.85   23.94   61.75   93.35
SO BUILDLEN BLR3      111.89  108.40   71.74   41.49   37.00   31.39
SO BUILDLEN BLR3       45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR3       27.03   23.94   47.85   75.14   72.66   67.98
SO BUILDLEN BLR3       71.65   72.63   71.40   68.00   76.49   68.58
SO XBADJ    BLR3      -39.44  -44.46  -48.13  -50.33  -51.01  -50.14
SO XBADJ    BLR3      -47.74  -43.89  -66.45  -36.48  -67.86   39.30
SO XBADJ    BLR3       28.36   35.20   40.96    1.38    1.17    0.91
SO XBADJ    BLR3       -5.82   15.24   17.48   19.19   20.32   20.83
SO XBADJ    BLR3       20.70   19.95   18.59 -213.31 -211.14 -202.55
SO XBADJ    BLR3     -140.25 -143.59 -142.57 -137.22 -124.00 -118.87
SO YBADJ    BLR3       40.37   19.63   14.14    8.23    2.07   -4.15
SO YBADJ    BLR3      -10.25  -16.04   -8.69  -25.99  -24.43  -50.41
SO YBADJ    BLR3      -41.83  -25.80  -36.09   12.22   15.88   19.05
SO YBADJ    BLR3      -40.37  -19.63  -14.14   -8.23   -2.07    4.15
SO YBADJ    BLR3       10.25   16.04    8.69   10.02  -20.65  -50.69
SO YBADJ    BLR3       20.44    2.75  -15.03  -32.35  -15.06   -7.16

SO BUILDHGT S1       45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S1       39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S1       45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDHGT S1       45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S1       39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S1       45.72   45.72   45.72   45.72   45.72   45.72
SO BUILDWID S1       43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S1       74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S1       43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDWID S1       43.57   43.77   42.64   40.22   52.63   42.42
SO BUILDWID S1       74.18   22.27   79.52   46.59   56.20   41.34
SO BUILDWID S1       43.25   43.85   43.11   41.07   39.23   42.04
SO BUILDLEN S1       33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S1       74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S1       40.22   36.58   31.82   26.10   22.27   28.49
SO BUILDLEN S1       33.85   38.17   41.34   43.25   73.88   75.46
SO BUILDLEN S1       74.75   39.23   75.33   75.14   72.66   42.64
SO BUILDLEN S1       40.22   36.58   31.82   26.10   22.27   28.49
SO XBADJ    S1        1.25    0.77    0.28   -0.23  -30.76  -33.55
SO XBADJ    S1      -35.32   -2.76  -40.00  -42.02  -42.78  -16.89
SO XBADJ    S1      -19.38  -21.29  -22.55  -23.12  -24.33  -30.17
SO XBADJ    S1      -35.09  -38.95  -41.62  -43.03  -43.13  -41.92
SO XBADJ    S1      -39.43  -36.48  -35.33  -33.11  -29.89  -25.75
SO XBADJ    S1      -20.84  -15.29   -9.27   -2.98    2.06    1.68
SO YBADJ    S1      -11.33   -8.00   -4.43   -0.73   11.02   11.93
SO YBADJ    S1       -9.15   13.20   -9.59   11.80   10.85   20.95
SO YBADJ    S1       21.40   21.20   20.36   18.90   16.86   14.31
SO YBADJ    S1       11.33    8.00    4.43    0.73  -11.02  -11.93
SO YBADJ    S1        9.15  -13.20    9.59  -11.80  -10.85  -20.95
SO YBADJ    S1      -21.40  -21.20  -20.36  -18.90  -16.86  -14.31

SO BUILDHGT S2       45.72   45.72   45.72   45.72   41.45   41.45
SO BUILDHGT S2       39.62   45.72   39.62   41.45   41.45   45.72
SO BUILDHGT S2       45.72   45.72   45.72   45.72   45.72   45.72
```

SO	BUILDHGT	S2	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S2	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S2	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S2	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S2	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S2	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S2	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S2	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S2	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S2	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S2	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S2	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S2	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S2	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S2	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S2	-2.98	-5.20	-7.27	-9.11	-40.71	-44.27
SO	XBADJ	S2	-46.49	-14.03	-51.03	-52.48	-52.34	-25.27
SO	XBADJ	S2	-26.33	-26.58	-26.03	-24.69	-23.94	-27.83
SO	XBADJ	S2	-30.87	-32.97	-34.07	-34.14	-33.17	-31.19
SO	XBADJ	S2	-28.26	-25.21	-24.30	-22.66	-20.32	-17.37
SO	XBADJ	S2	-13.89	-9.99	-5.79	-1.41	1.67	-0.66
SO	YBADJ	S2	-0.87	1.56	3.95	6.22	16.32	15.42
SO	YBADJ	S2	-7.58	12.81	-11.93	7.57	4.87	13.40
SO	YBADJ	S2	12.51	11.24	9.63	7.73	5.59	3.28
SO	YBADJ	S2	0.87	-1.56	-3.95	-6.22	-16.32	-15.42
SO	YBADJ	S2	7.58	-12.81	11.93	-7.57	-4.87	-13.40
SO	YBADJ	S2	-12.51	-11.24	-9.63	-7.73	-5.59	-3.28
SO	BUILDHGT	S3	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S3	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S3	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S3	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S3	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S3	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S3	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S3	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S3	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S3	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S3	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S3	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S3	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S3	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S3	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S3	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S3	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S3	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S3	-2.98	-5.20	-7.27	-9.11	-40.71	-44.27
SO	XBADJ	S3	-46.49	-14.03	-51.03	-52.48	-52.34	-25.27
SO	XBADJ	S3	-26.33	-26.58	-26.03	-24.69	-23.94	-27.83
SO	XBADJ	S3	-30.87	-32.97	-34.07	-34.14	-33.17	-31.19
SO	XBADJ	S3	-28.26	-25.21	-24.30	-22.66	-20.32	-17.37
SO	XBADJ	S3	-13.89	-9.99	-5.79	-1.41	1.67	-0.66
SO	YBADJ	S3	-0.87	1.56	3.95	6.22	16.32	15.42
SO	YBADJ	S3	-7.58	12.81	-11.93	7.57	4.87	13.40
SO	YBADJ	S3	12.51	11.24	9.63	7.73	5.59	3.28
SO	YBADJ	S3	0.87	-1.56	-3.95	-6.22	-16.32	-15.42
SO	YBADJ	S3	7.58	-12.81	11.93	-7.57	-4.87	-13.40
SO	YBADJ	S3	-12.51	-11.24	-9.63	-7.73	-5.59	-3.28
SO	BUILDHGT	S4	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S4	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S4	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S4	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S4	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S4	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S4	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S4	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S4	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S4	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S4	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S4	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S4	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S4	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S4	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S4	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S4	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S4	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S4	-11.54	-17.31	-22.56	-27.12	-60.90	-66.01
SO	XBADJ	S4	-69.12	-36.87	-73.39	-73.68	-71.73	-42.26
SO	XBADJ	S4	-40.40	-37.31	-33.10	-27.87	-23.14	-23.08
SO	XBADJ	S4	-22.31	-20.86	-18.78	-16.13	-12.99	-9.45
SO	XBADJ	S4	-5.63	-2.36	-1.94	-1.46	-0.94	-0.38

SO	XBADJ	S4	0.18	0.74	1.28	1.77	0.87	-5.42
SO	YBADJ	S4	20.32	20.95	20.94	20.29	27.05	22.48
SO	YBADJ	S4	-4.39	12.01	-16.68	-0.99	-7.24	-1.89
SO	YBADJ	S4	-5.50	-8.94	-12.11	-14.91	-17.25	-19.08
SO	YBADJ	S4	-20.32	-20.95	-20.94	-20.29	-27.05	-22.48
SO	YBADJ	S4	4.39	-12.01	16.68	0.99	7.24	1.89
SO	YBADJ	S4	5.50	8.94	12.11	14.91	17.25	19.08

SO	BUILDHGT	S5	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S5	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S5	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S5	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S5	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S5	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S5	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S5	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S5	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S5	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S5	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S5	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S5	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S5	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S5	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S5	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S5	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S5	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S5	-2.98	-5.20	-7.27	-9.11	-40.71	-44.27
SO	XBADJ	S5	-46.49	-14.03	-51.03	-52.48	-52.34	-25.27
SO	XBADJ	S5	-26.33	-26.58	-26.03	-24.69	-23.94	-27.83
SO	XBADJ	S5	-30.87	-32.97	-34.07	-34.14	-33.17	-31.19
SO	XBADJ	S5	-28.26	-25.21	-24.30	-22.66	-20.32	-17.37
SO	XBADJ	S5	-13.89	-9.99	-5.79	-1.41	1.67	-0.66
SO	YBADJ	S5	-0.87	1.56	3.95	6.22	16.32	15.42
SO	YBADJ	S5	-7.58	12.81	-11.93	7.57	4.87	13.40
SO	YBADJ	S5	12.51	11.24	9.63	7.73	5.59	3.28
SO	YBADJ	S5	0.87	-1.56	-3.95	-6.22	-16.32	-15.42
SO	YBADJ	S5	7.58	-12.81	11.93	-7.57	-4.87	-13.40
SO	YBADJ	S5	-12.51	-11.24	-9.63	-7.73	-5.59	-3.28

SO	BUILDHGT	S6	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S6	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S6	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S6	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S6	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S6	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S6	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S6	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S6	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S6	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S6	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S6	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S6	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S6	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S6	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S6	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S6	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S6	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S6	-2.98	-5.20	-7.27	-9.11	-40.71	-44.27
SO	XBADJ	S6	-46.49	-14.03	-51.03	-52.48	-52.34	-25.27
SO	XBADJ	S6	-26.33	-26.58	-26.03	-24.69	-23.94	-27.83
SO	XBADJ	S6	-30.87	-32.97	-34.07	-34.14	-33.17	-31.19
SO	XBADJ	S6	-28.26	-25.21	-24.30	-22.66	-20.32	-17.37
SO	XBADJ	S6	-13.89	-9.99	-5.79	-1.41	1.67	-0.66
SO	YBADJ	S6	-0.87	1.56	3.95	6.22	16.32	15.42
SO	YBADJ	S6	-7.58	12.81	-11.93	7.57	4.87	13.40
SO	YBADJ	S6	12.51	11.24	9.63	7.73	5.59	3.28
SO	YBADJ	S6	0.87	-1.56	-3.95	-6.22	-16.32	-15.42
SO	YBADJ	S6	7.58	-12.81	11.93	-7.57	-4.87	-13.40
SO	YBADJ	S6	-12.51	-11.24	-9.63	-7.73	-5.59	-3.28

SO	BUILDHGT	S7	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S7	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S7	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S7	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S7	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S7	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S7	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S7	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S7	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S7	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S7	74.18	22.27	79.52	46.59	56.20	41.34

SO	BUILDWID	S7	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S7	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S7	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S7	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S7	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S7	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S7	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S7	1.39	2.39	3.32	4.14	-25.19	-26.95
SO	XBADJ	S7	-27.90	5.27	-31.61	-33.54	-34.44	-8.96
SO	XBADJ	S7	-12.10	36.58	-17.20	-19.00	-21.57	-28.84
SO	XBADJ	S7	-35.24	-40.56	-44.66	-47.40	-48.69	-48.51
SO	XBADJ	S7	-46.85	-44.50	-43.72	-41.60	-38.22	-33.68
SO	XBADJ	S7	-28.12	36.58	-14.62	-7.10	-0.71	0.35
SO	YBADJ	S7	-19.82	-16.34	-12.36	-8.01	4.61	6.59
SO	YBADJ	S7	-13.27	10.43	-10.92	11.94	12.46	23.99
SO	YBADJ	S7	25.77	36.58	26.95	26.32	24.89	22.70
SO	YBADJ	S7	19.82	16.34	12.36	8.01	-4.61	-6.59
SO	YBADJ	S7	13.27	-10.43	10.92	-11.94	-12.46	-23.99
SO	YBADJ	S7	-25.77	36.58	-26.95	-26.32	-24.89	-22.70
SO	BUILDHGT	S8	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S8	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S8	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S8	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S8	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S8	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S8	42.93	42.93	42.64	40.22	52.63	42.42
SO	BUILDWID	S8	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S8	42.93	42.93	42.93	41.07	39.23	42.04
SO	BUILDWID	S8	42.93	42.93	42.64	40.22	52.63	42.42
SO	BUILDWID	S8	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S8	42.93	42.93	42.93	41.07	39.23	42.04
SO	BUILDLEN	S8	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S8	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S8	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S8	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S8	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S8	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S8	33.85	38.17	10.66	12.79	-15.50	-16.52
SO	XBADJ	S8	-17.03	16.24	-20.88	-23.36	-25.14	-0.81
SO	XBADJ	S8	40.22	36.58	31.82	-17.47	-21.95	-31.12
SO	XBADJ	S8	33.85	38.17	-52.00	-56.04	-58.38	-58.95
SO	XBADJ	S8	-57.72	-55.47	-54.45	-51.78	-47.53	-41.84
SO	XBADJ	S8	40.22	36.58	31.82	-8.63	-0.32	2.63
SO	YBADJ	S8	33.85	38.17	-20.51	-14.76	-0.54	3.20
SO	YBADJ	S8	-14.79	10.81	-8.64	16.05	18.28	31.33
SO	YBADJ	S8	40.22	36.58	31.82	37.19	35.85	33.43
SO	YBADJ	S8	33.85	38.17	20.51	14.76	0.54	-3.20
SO	YBADJ	S8	14.79	-10.81	8.64	-16.05	-18.28	-31.33
SO	YBADJ	S8	40.22	36.58	31.82	-37.19	-35.85	-33.43
SO	BUILDHGT	S9	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S9	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S9	45.72	41.45	41.45	41.45	41.45	41.45
SO	BUILDHGT	S9	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S9	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S9	45.72	41.45	41.45	41.45	41.45	41.45
SO	BUILDWID	S9	39.42	39.42	39.42	39.42	52.63	42.42
SO	BUILDWID	S9	74.18	22.27	79.52	46.59	56.20	39.42
SO	BUILDWID	S9	39.42	73.88	75.46	74.75	73.23	75.33
SO	BUILDWID	S9	39.42	39.42	39.42	39.42	52.63	42.42
SO	BUILDWID	S9	74.18	22.27	79.52	46.59	56.20	39.42
SO	BUILDWID	S9	39.42	73.88	75.46	74.75	73.23	75.33
SO	BUILDLEN	S9	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S9	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S9	40.22	52.63	42.42	30.92	23.46	35.56
SO	BUILDLEN	S9	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S9	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S9	40.22	52.63	42.42	30.92	23.46	35.56
SO	XBADJ	S9	33.85	38.17	41.34	43.25	-5.81	-6.08
SO	XBADJ	S9	-6.16	27.20	-10.14	-13.19	-15.83	42.64
SO	XBADJ	S9	40.22	-20.62	-21.02	-20.77	-22.33	-33.40
SO	XBADJ	S9	33.85	38.17	41.34	43.25	-68.07	-69.38
SO	XBADJ	S9	-68.59	-66.44	-65.18	-61.95	-56.83	42.64
SO	XBADJ	S9	40.22	-32.00	-21.40	-10.15	-1.13	-2.16
SO	YBADJ	S9	33.85	38.17	41.34	43.25	-5.69	-0.19
SO	YBADJ	S9	-16.32	11.20	-6.36	20.16	24.09	42.64
SO	YBADJ	S9	40.22	31.13	31.65	31.21	29.82	27.52
SO	YBADJ	S9	33.85	38.17	41.34	43.25	5.69	0.19
SO	YBADJ	S9	16.32	-11.20	6.36	-20.16	-24.09	42.64
SO	YBADJ	S9	40.22	-31.13	-31.65	-31.21	-29.82	-27.52

SO	BUILDHGT	S10	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S10	39.62	30.48	39.62	41.45	41.45	45.72
SO	BUILDHGT	S10	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S10	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S10	39.62	30.48	39.62	41.45	41.45	45.72
SO	BUILDHGT	S10	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S10	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S10	74.18	32.64	79.52	46.59	56.20	41.34
SO	BUILDWID	S10	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S10	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S10	74.18	32.64	79.52	46.59	56.20	41.34
SO	BUILDWID	S10	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S10	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S10	74.75	30.22	75.33	75.14	72.66	42.64
SO	BUILDLEN	S10	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S10	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S10	74.75	30.22	75.33	75.14	72.66	42.64
SO	BUILDLEN	S10	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S10	11.45	8.85	5.99	2.94	-30.23	-35.68
SO	XBADJ	S10	-40.05	-28.63	-49.41	-53.38	-55.73	-31.05
SO	XBADJ	S10	-34.32	-36.55	-37.66	-37.64	-37.81	-42.20
SO	XBADJ	S10	-45.30	-47.03	-47.33	-46.19	-43.65	-39.78
SO	XBADJ	S10	-34.70	-1.59	-25.92	-21.76	-16.93	-11.59
SO	XBADJ	S10	-5.90	-0.03	5.84	11.54	15.54	13.70
SO	YBADJ	S10	0.02	4.95	9.73	14.21	26.28	27.05
SO	YBADJ	S10	5.37	-25.08	2.44	22.01	18.93	26.66
SO	YBADJ	S10	24.56	21.72	18.22	14.17	9.68	4.90
SO	YBADJ	S10	-0.02	-4.95	-9.73	-14.21	-26.28	-27.05
SO	YBADJ	S10	-5.37	25.08	-2.44	-22.01	-18.93	-26.66
SO	YBADJ	S10	-24.56	-21.72	-18.22	-14.17	-9.68	-4.90
SO	BUILDHGT	S11	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDHGT	S11	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDHGT	S11	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDHGT	S11	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDHGT	S11	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDHGT	S11	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDWID	S11	239.11	235.86	225.45	208.19	184.60	155.40
SO	BUILDWID	S11	121.48	83.87	43.71	83.87	121.48	155.40
SO	BUILDWID	S11	184.60	208.19	225.45	235.86	239.11	235.09
SO	BUILDWID	S11	239.11	235.86	225.45	208.19	184.60	155.40
SO	BUILDWID	S11	121.48	83.87	43.71	83.87	121.48	155.40
SO	BUILDWID	S11	184.60	208.19	225.45	235.86	239.11	235.09
SO	BUILDLEN	S11	83.87	121.48	155.40	184.60	208.19	225.45
SO	BUILDLEN	S11	235.86	239.11	235.09	239.11	235.86	225.45
SO	BUILDLEN	S11	208.19	184.60	155.40	121.48	83.87	43.71
SO	BUILDLEN	S11	83.87	121.48	155.40	184.60	208.19	225.45
SO	BUILDLEN	S11	235.86	239.11	235.09	239.11	235.86	225.45
SO	BUILDLEN	S11	208.19	184.60	155.40	121.48	83.87	43.71
SO	XBADJ	S11	-78.21	-114.45	-147.21	-175.51	-198.46	-215.39
SO	XBADJ	S11	-225.78	-229.30	-225.86	-223.14	-213.65	-197.66
SO	XBADJ	S11	-175.67	-148.34	-116.50	-81.12	-43.28	-4.12
SO	XBADJ	S11	-5.66	-7.03	-8.18	-9.09	-9.72	-10.06
SO	XBADJ	S11	-10.09	-9.81	-9.23	-15.97	-22.22	-27.79
SO	XBADJ	S11	-32.52	-36.26	-38.90	-40.36	-40.59	-39.59
SO	YBADJ	S11	103.59	95.72	84.94	71.57	56.04	38.80
SO	YBADJ	S11	20.38	1.34	-17.73	-36.27	-53.71	-69.51
SO	YBADJ	S11	-83.21	-94.37	-102.67	-107.85	-109.75	-108.31
SO	YBADJ	S11	-103.59	-95.72	-84.94	-71.57	-56.04	-38.80
SO	YBADJ	S11	-20.38	-1.34	17.73	36.27	53.71	69.51
SO	YBADJ	S11	83.21	94.37	102.67	107.85	109.75	108.31
SO	BUILDHGT	S12	45.72	45.72	45.72	45.72	39.62	39.62
SO	BUILDHGT	S12	39.62	30.48	28.55	28.55	28.55	28.55
SO	BUILDHGT	S12	28.55	28.55	41.45	41.45	41.45	45.72
SO	BUILDHGT	S12	45.72	45.72	45.72	45.72	39.62	39.62
SO	BUILDHGT	S12	39.62	30.48	12.19	12.19	0.00	0.00
SO	BUILDHGT	S12	0.00	28.55	41.45	41.45	41.45	45.72
SO	BUILDWID	S12	43.57	43.77	42.64	40.22	80.94	78.76
SO	BUILDWID	S12	74.18	32.64	55.17	57.98	59.03	59.79
SO	BUILDWID	S12	62.36	63.03	75.46	74.75	73.23	42.04
SO	BUILDWID	S12	43.57	43.77	42.64	40.22	80.94	78.76
SO	BUILDWID	S12	74.18	32.64	65.31	66.35	0.00	0.00
SO	BUILDWID	S12	0.00	63.03	75.46	74.75	73.23	42.04
SO	BUILDLEN	S12	33.85	38.17	41.34	43.25	84.24	77.21
SO	BUILDLEN	S12	74.75	30.22	47.24	56.11	63.26	68.50
SO	BUILDLEN	S12	71.65	72.63	42.42	30.92	23.46	28.49
SO	BUILDLEN	S12	33.85	38.17	41.34	43.25	84.24	77.21
SO	BUILDLEN	S12	74.75	30.22	37.26	46.22	0.00	0.00
SO	BUILDLEN	S12	0.00	72.63	42.42	30.92	23.46	28.49
SO	XBADJ	S12	77.39	76.70	73.68	68.42	20.69	17.79

SO XBADJ	S12	7.43	9.66	-115.21	-125.21	-131.41	-133.62
SO XBADJ	S12	-131.77	-125.92	-88.01	-91.19	-94.04	-104.23
SO XBADJ	S12	-111.24	-114.88	-115.02	-111.67	-104.93	-95.00
SO XBADJ	S12	-82.18	-39.89	-71.84	-70.89	0.00	0.00
SO XBADJ	S12	0.00	53.29	45.59	60.27	70.59	75.73
SO YBADJ	S12	-16.73	-0.10	16.54	32.67	41.68	48.63
SO YBADJ	S12	54.10	31.15	40.12	25.88	10.86	-5.24
SO YBADJ	S12	-23.00	-40.06	57.27	44.80	30.98	32.85
SO YBADJ	S12	16.73	0.10	-16.54	-32.67	-41.68	-48.63
SO YBADJ	S12	-54.10	-31.15	-26.64	-35.48	0.00	0.00
SO YBADJ	S12	0.00	40.06	-57.27	-44.80	-30.98	-32.85

SO BUILDHGT	S13	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S13	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S13	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDHGT	S13	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S13	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S13	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDWID	S13	43.57	43.77	42.64	40.22	52.63	42.42
SO BUILDWID	S13	74.18	22.27	79.52	46.59	56.20	41.34
SO BUILDWID	S13	43.25	43.85	43.11	41.07	39.23	42.04
SO BUILDWID	S13	43.57	43.77	42.64	40.22	52.63	42.42
SO BUILDWID	S13	74.18	22.27	79.52	46.59	56.20	41.34
SO BUILDWID	S13	43.25	43.85	43.11	41.07	39.23	42.04
SO BUILDLEN	S13	33.85	38.17	41.34	43.25	73.88	75.46
SO BUILDLEN	S13	74.75	39.23	75.33	75.14	72.66	42.64
SO BUILDLEN	S13	40.22	36.58	31.82	26.10	22.27	28.49
SO BUILDLEN	S13	33.85	38.17	41.34	43.25	73.88	75.46
SO BUILDLEN	S13	74.75	39.23	75.33	75.14	72.66	42.64
SO BUILDLEN	S13	40.22	36.58	31.82	26.10	22.27	28.49
SO XBADJ	S13	-15.34	-12.80	-9.87	-6.64	-33.24	-32.03
SO XBADJ	S13	-29.84	6.52	-27.21	-26.12	-24.23	3.73
SO XBADJ	S13	2.68	1.56	0.38	-0.80	-3.31	-11.08
SO XBADJ	S13	-18.51	-25.38	-31.47	-36.62	-40.64	-43.44
SO XBADJ	S13	-44.91	-45.75	-48.12	-49.02	-48.43	-46.37
SO XBADJ	S13	-42.90	-38.13	-32.20	-25.30	-18.96	-17.42
SO YBADJ	S13	-27.24	-26.55	-25.05	-22.79	-11.82	-10.99
SO YBADJ	S13	-31.46	-7.83	-28.68	-4.79	-2.72	10.80
SO YBADJ	S13	14.99	18.72	21.88	24.38	26.13	27.10
SO YBADJ	S13	27.24	26.55	25.05	22.79	11.82	10.99
SO YBADJ	S13	31.46	7.83	28.68	4.79	2.72	-10.80
SO YBADJ	S13	-14.99	-18.72	-21.88	-24.38	-26.13	-27.10

SO BUILDHGT	S14	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S14	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S14	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDHGT	S14	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S14	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S14	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDWID	S14	42.64	42.64	42.64	40.22	52.63	42.42
SO BUILDWID	S14	74.18	22.27	79.52	46.59	56.20	41.34
SO BUILDWID	S14	42.64	42.64	42.64	41.07	39.23	42.04
SO BUILDWID	S14	42.64	42.64	42.64	40.22	52.63	42.42
SO BUILDWID	S14	74.18	22.27	79.52	46.59	56.20	41.34
SO BUILDWID	S14	42.64	42.64	42.64	41.07	39.23	42.04
SO BUILDLEN	S14	33.85	38.17	41.34	43.25	73.88	75.46
SO BUILDLEN	S14	74.75	39.23	75.33	75.14	72.66	42.64
SO BUILDLEN	S14	40.22	36.58	31.82	26.10	22.27	28.49
SO BUILDLEN	S14	33.85	38.17	41.34	43.25	73.88	75.46
SO BUILDLEN	S14	74.75	39.23	75.33	75.14	72.66	42.64
SO BUILDLEN	S14	40.22	36.58	31.82	26.10	22.27	28.49
SO XBADJ	S14	33.85	38.17	-2.73	1.77	-23.82	-21.88
SO XBADJ	S14	-19.27	17.18	-16.78	-16.23	-15.18	11.66
SO XBADJ	S14	40.22	36.58	31.82	0.68	-3.68	-13.30
SO XBADJ	S14	33.85	38.17	-38.61	-45.02	-50.07	-53.59
SO XBADJ	S14	-55.48	-56.41	-58.55	-58.91	-57.48	-54.30
SO XBADJ	S14	40.22	36.58	31.82	-26.78	-18.59	-15.20
SO YBADJ	S14	33.85	38.17	-32.98	-29.36	-16.83	-14.29
SO YBADJ	S14	-32.95	-7.45	-26.46	-0.79	2.93	17.94
SO YBADJ	S14	40.22	36.58	31.82	34.94	36.80	37.53
SO YBADJ	S14	33.85	38.17	32.98	29.36	16.83	14.29
SO YBADJ	S14	32.95	7.45	26.46	0.79	-2.93	-17.94
SO YBADJ	S14	40.22	36.58	31.82	-34.94	-36.80	-37.53

SO BUILDHGT	S15	41.45	41.45	41.45	41.45	41.45	41.45
SO BUILDHGT	S15	39.62	45.72	39.62	41.45	41.45	41.45
SO BUILDHGT	S15	41.45	41.45	41.45	41.45	41.45	41.45
SO BUILDHGT	S15	41.45	41.45	41.45	41.45	41.45	41.45
SO BUILDHGT	S15	39.62	45.72	39.62	41.45	41.45	41.45
SO BUILDHGT	S15	41.45	41.45	41.45	41.45	41.45	41.45
SO BUILDWID	S15	75.14	72.66	41.51	41.51	52.63	42.42

SO	BUILDWID	S15	74.18	22.27	79.52	46.59	56.20	41.51
SO	BUILDWID	S15	41.51	41.51	75.46	74.75	73.23	75.33
SO	BUILDWID	S15	75.14	72.66	41.51	41.51	52.63	42.42
SO	BUILDWID	S15	74.18	22.27	79.52	46.59	56.20	41.51
SO	BUILDWID	S15	41.51	41.51	75.46	74.75	73.23	75.33
SO	BUILDLEN	S15	46.59	56.20	41.34	43.25	73.88	75.46
SO	BUILDLEN	S15	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S15	40.22	36.58	42.42	30.92	23.46	35.56
SO	BUILDLEN	S15	46.59	56.20	41.34	43.25	73.88	75.46
SO	BUILDLEN	S15	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S15	40.22	36.58	42.42	30.92	23.46	35.56
SO	XBADJ	S15	-19.52	-18.71	41.34	43.25	-13.05	-10.28
SO	XBADJ	S15	-7.20	29.36	-4.85	-4.92	-4.85	42.64
SO	XBADJ	S15	40.22	36.58	-3.15	-2.45	-4.11	-15.83
SO	XBADJ	S15	-27.07	-37.49	41.34	43.25	-60.83	-65.18
SO	XBADJ	S15	-67.55	-68.60	-70.48	-70.21	-67.82	42.64
SO	XBADJ	S15	40.22	36.58	-39.27	-28.47	-19.35	-19.73
SO	YBADJ	S15	-32.64	-31.48	41.34	43.25	-22.55	-18.06
SO	YBADJ	S15	-34.64	-7.03	-23.93	3.78	9.39	42.64
SO	YBADJ	S15	40.22	36.58	27.45	30.17	31.98	32.81
SO	YBADJ	S15	32.64	31.49	41.34	43.25	22.55	18.06
SO	YBADJ	S15	34.64	7.03	23.93	-3.78	-9.39	42.64
SO	YBADJ	S15	40.22	36.58	-27.45	-30.17	-31.98	-32.81

SO	BUILDHGT	S16	45.72	45.72	45.72	39.62	39.62	39.62
SO	BUILDHGT	S16	39.62	30.48	39.62	41.45	41.45	45.72
SO	BUILDHGT	S16	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S16	45.72	45.72	45.72	39.62	39.62	39.62
SO	BUILDHGT	S16	39.62	30.48	39.62	41.45	41.45	45.72
SO	BUILDHGT	S16	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S16	43.57	43.77	42.64	80.66	80.94	78.76
SO	BUILDWID	S16	74.18	32.64	79.52	46.59	56.20	41.34
SO	BUILDWID	S16	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S16	43.57	43.77	42.64	80.66	80.94	78.76
SO	BUILDWID	S16	74.18	32.64	79.52	46.59	56.20	41.34
SO	BUILDWID	S16	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S16	33.85	38.17	41.34	88.71	84.24	77.21
SO	BUILDLEN	S16	74.75	30.22	75.33	75.14	72.66	42.64
SO	BUILDLEN	S16	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S16	33.85	38.17	41.34	88.71	84.24	77.21
SO	BUILDLEN	S16	74.75	30.22	75.33	75.14	72.66	42.64
SO	BUILDLEN	S16	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S16	29.19	21.94	14.02	-39.78	-43.23	-45.37
SO	XBADJ	S16	-53.05	-46.29	-71.19	-78.63	-83.68	-60.84
SO	XBADJ	S16	-65.06	-67.29	-67.48	-65.62	-63.12	-64.05
SO	XBADJ	S16	-63.04	-60.11	-55.36	-48.93	-41.01	-31.84
SO	XBADJ	S16	-21.70	16.07	-4.14	3.49	11.01	18.20
SO	XBADJ	S16	24.84	30.72	35.66	39.53	40.84	35.56
SO	YBADJ	S16	25.27	32.90	39.52	45.74	42.87	38.70
SO	YBADJ	S16	33.36	0.22	24.29	39.75	32.01	34.69
SO	YBADJ	S16	27.30	19.08	10.28	1.17	-7.98	-16.88
SO	YBADJ	S16	-25.27	-32.90	-39.52	-45.74	-42.87	-38.70
SO	YBADJ	S16	-33.36	-0.22	-24.29	-39.75	-32.01	-34.69
SO	YBADJ	S16	-27.30	-19.08	-10.28	-1.17	7.98	16.88

SO	BUILDHGT	S1B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S1B	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S1B	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S1B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S1B	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S1B	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S1B	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S1B	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S1B	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S1B	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S1B	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S1B	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S1B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S1B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S1B	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S1B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S1B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S1B	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S1B	1.25	0.77	0.28	-0.23	-30.76	-33.55
SO	XBADJ	S1B	-35.32	-2.76	-40.00	-42.02	-42.78	-16.89
SO	XBADJ	S1B	-19.38	-21.29	-22.55	-23.12	-24.33	-30.17
SO	XBADJ	S1B	-35.09	-38.95	-41.62	-43.03	-43.13	-41.92
SO	XBADJ	S1B	-39.43	-36.48	-35.33	-33.11	-29.89	-25.75
SO	XBADJ	S1B	-20.84	-15.29	-9.27	-2.98	2.06	1.68
SO	YBADJ	S1B	-11.33	-8.00	-4.43	-0.73	11.02	11.93
SO	YBADJ	S1B	-9.15	13.20	-9.59	11.80	10.85	20.95
SO	YBADJ	S1B	21.40	21.20	20.36	18.90	16.86	14.31
SO	YBADJ	S1B	11.33	8.00	4.43	0.73	-11.02	-11.93

SO YBADJ	S1B	9.15	-13.20	9.59	-11.80	-10.85	-20.95
SO YBADJ	S1B	-21.40	-21.20	-20.36	-18.90	-16.86	-14.31

SO BUILDHGT	S2B	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S2B	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S2B	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDHGT	S2B	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S2B	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S2B	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDWID	S2B	43.57	43.77	42.64	40.22	52.63	42.42
SO BUILDWID	S2B	74.18	22.27	79.52	46.59	56.20	41.34
SO BUILDWID	S2B	43.25	43.85	43.11	41.07	39.23	42.04
SO BUILDWID	S2B	43.57	43.77	42.64	40.22	52.63	42.42
SO BUILDWID	S2B	74.18	22.27	79.52	46.59	56.20	41.34
SO BUILDWID	S2B	43.25	43.85	43.11	41.07	39.23	42.04
SO BUILDLEN	S2B	33.85	38.17	41.34	43.25	73.88	75.46
SO BUILDLEN	S2B	74.75	39.23	75.33	75.14	72.66	42.64
SO BUILDLEN	S2B	40.22	36.58	31.82	26.10	22.27	28.49
SO BUILDLEN	S2B	33.85	38.17	41.34	43.25	73.88	75.46
SO BUILDLEN	S2B	74.75	39.23	75.33	75.14	72.66	42.64
SO BUILDLEN	S2B	40.22	36.58	31.82	26.10	22.27	28.49
SO XBADJ	S2B	-2.98	-5.20	-7.27	-9.11	-40.71	-44.27
SO XBADJ	S2B	-46.49	-14.03	-51.03	-52.48	-52.34	-25.27
SO XBADJ	S2B	-26.33	-26.58	-26.03	-24.69	-23.94	-27.83
SO XBADJ	S2B	-30.87	-32.97	-34.07	-34.14	-33.17	-31.19
SO XBADJ	S2B	-28.26	-25.21	-24.30	-22.66	-20.32	-17.37
SO XBADJ	S2B	-13.89	-9.99	-5.79	-1.41	1.67	-0.66
SO YBADJ	S2B	-0.87	1.56	3.95	6.22	16.32	15.42
SO YBADJ	S2B	-7.58	12.81	-11.93	7.57	4.87	13.40
SO YBADJ	S2B	12.51	11.24	9.63	7.73	5.59	3.28
SO YBADJ	S2B	0.87	-1.56	-3.95	-6.22	-16.32	-15.42
SO YBADJ	S2B	7.58	-12.81	11.93	-7.57	-4.87	-13.40
SO YBADJ	S2B	-12.51	-11.24	-9.63	-7.73	-5.59	-3.28

SO BUILDHGT	S3B	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S3B	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S3B	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDHGT	S3B	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S3B	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S3B	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDWID	S3B	43.57	43.77	42.64	40.22	52.63	42.42
SO BUILDWID	S3B	74.18	22.27	79.52	46.59	56.20	41.34
SO BUILDWID	S3B	43.25	43.85	43.11	41.07	39.23	42.04
SO BUILDWID	S3B	43.57	43.77	42.64	40.22	52.63	42.42
SO BUILDWID	S3B	74.18	22.27	79.52	46.59	56.20	41.34
SO BUILDWID	S3B	43.25	43.85	43.11	41.07	39.23	42.04
SO BUILDLEN	S3B	33.85	38.17	41.34	43.25	73.88	75.46
SO BUILDLEN	S3B	74.75	39.23	75.33	75.14	72.66	42.64
SO BUILDLEN	S3B	40.22	36.58	31.82	26.10	22.27	28.49
SO BUILDLEN	S3B	33.85	38.17	41.34	43.25	73.88	75.46
SO BUILDLEN	S3B	74.75	39.23	75.33	75.14	72.66	42.64
SO BUILDLEN	S3B	40.22	36.58	31.82	26.10	22.27	28.49
SO XBADJ	S3B	-2.98	-5.20	-7.27	-9.11	-40.71	-44.27
SO XBADJ	S3B	-46.49	-14.03	-51.03	-52.48	-52.34	-25.27
SO XBADJ	S3B	-26.33	-26.58	-26.03	-24.69	-23.94	-27.83
SO XBADJ	S3B	-30.87	-32.97	-34.07	-34.14	-33.17	-31.19
SO XBADJ	S3B	-28.26	-25.21	-24.30	-22.66	-20.32	-17.37
SO XBADJ	S3B	-13.89	-9.99	-5.79	-1.41	1.67	-0.66
SO YBADJ	S3B	-0.87	1.56	3.95	6.22	16.32	15.42
SO YBADJ	S3B	-7.58	12.81	-11.93	7.57	4.87	13.40
SO YBADJ	S3B	12.51	11.24	9.63	7.73	5.59	3.28
SO YBADJ	S3B	0.87	-1.56	-3.95	-6.22	-16.32	-15.42
SO YBADJ	S3B	7.58	-12.81	11.93	-7.57	-4.87	-13.40
SO YBADJ	S3B	-12.51	-11.24	-9.63	-7.73	-5.59	-3.28

SO BUILDHGT	S4B	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S4B	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S4B	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDHGT	S4B	45.72	45.72	45.72	45.72	41.45	41.45
SO BUILDHGT	S4B	39.62	45.72	39.62	41.45	41.45	45.72
SO BUILDHGT	S4B	45.72	45.72	45.72	45.72	45.72	45.72
SO BUILDWID	S4B	43.57	43.77	42.64	40.22	52.63	42.42
SO BUILDWID	S4B	74.18	22.27	79.52	46.59	56.20	41.34
SO BUILDWID	S4B	43.25	43.85	43.11	41.07	39.23	42.04
SO BUILDWID	S4B	43.57	43.77	42.64	40.22	52.63	42.42
SO BUILDWID	S4B	74.18	22.27	79.52	46.59	56.20	41.34
SO BUILDWID	S4B	43.25	43.85	43.11	41.07	39.23	42.04
SO BUILDLEN	S4B	33.85	38.17	41.34	43.25	73.88	75.46
SO BUILDLEN	S4B	74.75	39.23	75.33	75.14	72.66	42.64
SO BUILDLEN	S4B	40.22	36.58	31.82	26.10	22.27	28.49
SO BUILDLEN	S4B	33.85	38.17	41.34	43.25	73.88	75.46

SO	BUILDLEN	S4B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S4B	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S4B	-11.54	-17.31	-22.56	-27.12	-60.90	-66.01
SO	XBADJ	S4B	-69.12	-36.87	-73.39	-73.68	-71.73	-42.26
SO	XBADJ	S4B	-40.40	-37.31	-33.10	-27.87	-23.14	-23.08
SO	XBADJ	S4B	-22.31	-20.86	-18.78	-16.13	-12.99	-9.45
SO	XBADJ	S4B	-5.63	-2.36	-1.94	-1.46	-0.94	-0.38
SO	XBADJ	S4B	0.18	0.74	1.28	1.77	0.87	-5.42
SO	YBADJ	S4B	20.32	20.95	20.94	20.29	27.05	22.48
SO	YBADJ	S4B	-4.39	12.01	-16.68	-0.99	-7.24	-1.89
SO	YBADJ	S4B	-5.50	-8.94	-12.11	-14.91	-17.25	-19.08
SO	YBADJ	S4B	-20.32	-20.95	-20.94	-20.29	-27.05	-22.48
SO	YBADJ	S4B	4.39	-12.01	16.68	0.99	7.24	1.89
SO	YBADJ	S4B	5.50	8.94	12.11	14.91	17.25	19.08
SO	BUILDHGT	S5B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S5B	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S5B	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S5B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S5B	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S5B	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S5B	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S5B	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S5B	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S5B	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S5B	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S5B	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S5B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S5B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S5B	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S5B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S5B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S5B	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S5B	-2.98	-5.20	-7.27	-9.11	-40.71	-44.27
SO	XBADJ	S5B	-46.49	-14.03	-51.03	-52.48	-52.34	-25.27
SO	XBADJ	S5B	-26.33	-26.58	-26.03	-24.69	-23.94	-27.83
SO	XBADJ	S5B	-30.87	-32.97	-34.07	-34.14	-33.17	-31.19
SO	XBADJ	S5B	-28.26	-25.21	-24.30	-22.66	-20.32	-17.37
SO	XBADJ	S5B	-13.89	-9.99	-5.79	-1.41	1.67	-0.66
SO	YBADJ	S5B	-0.87	1.56	3.95	6.22	16.32	15.42
SO	YBADJ	S5B	-7.58	12.81	-11.93	7.57	4.87	13.40
SO	YBADJ	S5B	12.51	11.24	9.63	7.73	5.59	3.28
SO	YBADJ	S5B	0.87	-1.56	-3.95	-6.22	-16.32	-15.42
SO	YBADJ	S5B	7.58	-12.81	11.93	-7.57	-4.87	-13.40
SO	YBADJ	S5B	-12.51	-11.24	-9.63	-7.73	-5.59	-3.28
SO	BUILDHGT	S6B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S6B	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S6B	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S6B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S6B	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S6B	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S6B	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S6B	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S6B	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S6B	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S6B	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S6B	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S6B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S6B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S6B	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S6B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S6B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S6B	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S6B	-2.98	-5.20	-7.27	-9.11	-40.71	-44.27
SO	XBADJ	S6B	-46.49	-14.03	-51.03	-52.48	-52.34	-25.27
SO	XBADJ	S6B	-26.33	-26.58	-26.03	-24.69	-23.94	-27.83
SO	XBADJ	S6B	-30.87	-32.97	-34.07	-34.14	-33.17	-31.19
SO	XBADJ	S6B	-28.26	-25.21	-24.30	-22.66	-20.32	-17.37
SO	XBADJ	S6B	-13.89	-9.99	-5.79	-1.41	1.67	-0.66
SO	YBADJ	S6B	-0.87	1.56	3.95	6.22	16.32	15.42
SO	YBADJ	S6B	-7.58	12.81	-11.93	7.57	4.87	13.40
SO	YBADJ	S6B	12.51	11.24	9.63	7.73	5.59	3.28
SO	YBADJ	S6B	0.87	-1.56	-3.95	-6.22	-16.32	-15.42
SO	YBADJ	S6B	7.58	-12.81	11.93	-7.57	-4.87	-13.40
SO	YBADJ	S6B	-12.51	-11.24	-9.63	-7.73	-5.59	-3.28
SO	BUILDHGT	S7B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S7B	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S7B	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S7B	45.72	45.72	45.72	45.72	41.45	41.45

SO	BUILDHGT	S7B	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S7B	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S7B	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S7B	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S7B	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S7B	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S7B	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S7B	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S7B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S7B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S7B	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S7B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S7B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S7B	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S7B	1.39	2.39	3.32	4.14	-25.19	-26.95
SO	XBADJ	S7B	-27.90	5.27	-31.61	-33.54	-34.44	-8.96
SO	XBADJ	S7B	-12.10	36.58	-17.20	-19.00	-21.57	-28.84
SO	XBADJ	S7B	-35.24	-40.56	-44.66	-47.40	-48.69	-48.51
SO	XBADJ	S7B	-46.85	-44.50	-43.72	-41.60	-38.22	-33.68
SO	XBADJ	S7B	-28.12	36.58	-14.62	-7.10	-0.71	0.35
SO	YBADJ	S7B	-19.82	-16.34	-12.36	-8.01	4.61	6.59
SO	YBADJ	S7B	-13.27	10.43	-10.92	11.94	12.46	23.99
SO	YBADJ	S7B	25.77	36.58	26.95	26.32	24.89	22.70
SO	YBADJ	S7B	19.82	16.34	12.36	8.01	-4.61	-6.59
SO	YBADJ	S7B	13.27	-10.43	10.92	-11.94	-12.46	-23.99
SO	YBADJ	S7B	-25.77	36.58	-26.95	-26.32	-24.89	-22.70
SO	BUILDHGT	S8B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S8B	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S8B	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S8B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S8B	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S8B	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S8B	42.93	42.93	42.64	40.22	52.63	42.42
SO	BUILDWID	S8B	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S8B	42.93	42.93	42.93	41.07	39.23	42.04
SO	BUILDWID	S8B	42.93	42.93	42.64	40.22	52.63	42.42
SO	BUILDWID	S8B	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S8B	42.93	42.93	42.93	41.07	39.23	42.04
SO	BUILDLEN	S8B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S8B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S8B	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S8B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S8B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S8B	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S8B	33.85	38.17	10.66	12.79	-15.50	-16.52
SO	XBADJ	S8B	-17.03	16.24	-20.88	-23.36	-25.14	-0.81
SO	XBADJ	S8B	40.22	36.58	31.82	-17.47	-21.95	-31.12
SO	XBADJ	S8B	33.85	38.17	-52.00	-56.04	-58.38	-58.95
SO	XBADJ	S8B	-57.72	-55.47	-54.45	-51.78	-47.53	-41.84
SO	XBADJ	S8B	40.22	36.58	31.82	-8.63	-0.32	2.63
SO	YBADJ	S8B	33.85	38.17	-20.51	-14.76	-0.54	3.20
SO	YBADJ	S8B	-14.79	10.81	-8.64	16.05	18.28	31.33
SO	YBADJ	S8B	40.22	36.58	31.82	37.19	35.85	33.43
SO	YBADJ	S8B	33.85	38.17	20.51	14.76	0.54	-3.20
SO	YBADJ	S8B	14.79	-10.81	8.64	-16.05	-18.28	-31.33
SO	YBADJ	S8B	40.22	36.58	31.82	-37.19	-35.85	-33.43
SO	BUILDHGT	S9B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S9B	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S9B	45.72	41.45	41.45	41.45	41.45	41.45
SO	BUILDHGT	S9B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S9B	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S9B	45.72	41.45	41.45	41.45	41.45	41.45
SO	BUILDWID	S9B	39.42	39.42	39.42	39.42	52.63	42.42
SO	BUILDWID	S9B	74.18	22.27	79.52	46.59	56.20	39.42
SO	BUILDWID	S9B	39.42	73.88	75.46	74.75	73.23	75.33
SO	BUILDWID	S9B	39.42	39.42	39.42	39.42	52.63	42.42
SO	BUILDWID	S9B	74.18	22.27	79.52	46.59	56.20	39.42
SO	BUILDWID	S9B	39.42	73.88	75.46	74.75	73.23	75.33
SO	BUILDLEN	S9B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S9B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S9B	40.22	52.63	42.42	30.92	23.46	35.56
SO	BUILDLEN	S9B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S9B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S9B	40.22	52.63	42.42	30.92	23.46	35.56
SO	XBADJ	S9B	33.85	38.17	41.34	43.25	-5.81	-6.08
SO	XBADJ	S9B	-6.16	27.20	-10.14	-13.19	-15.83	42.64
SO	XBADJ	S9B	40.22	-20.62	-21.02	-20.77	-22.33	-33.40
SO	XBADJ	S9B	33.85	38.17	41.34	43.25	-68.07	-69.38
SO	XBADJ	S9B	-68.59	-66.44	-65.18	-61.95	-56.83	42.64
SO	XBADJ	S9B	40.22	-32.00	-21.40	-10.15	-1.13	-2.16

SO	YBADJ	S9B	33.85	38.17	41.34	43.25	-5.69	-0.19
SO	YBADJ	S9B	-16.32	11.20	-6.36	20.16	24.09	42.64
SO	YBADJ	S9B	40.22	31.13	31.65	31.21	29.82	27.52
SO	YBADJ	S9B	33.85	38.17	41.34	43.25	5.69	0.19
SO	YBADJ	S9B	16.32	-11.20	6.36	-20.16	-24.09	42.64
SO	YBADJ	S9B	40.22	-31.13	-31.65	-31.21	-29.82	-27.52

SO	BUILDHGT	S10B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S10B	39.62	30.48	39.62	41.45	41.45	45.72
SO	BUILDHGT	S10B	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S10B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S10B	39.62	30.48	39.62	41.45	41.45	45.72
SO	BUILDHGT	S10B	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S10B	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S10B	74.18	32.64	79.52	46.59	56.20	41.34
SO	BUILDWID	S10B	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S10B	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S10B	74.18	32.64	79.52	46.59	56.20	41.34
SO	BUILDWID	S10B	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S10B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S10B	74.75	30.22	75.33	75.14	72.66	42.64
SO	BUILDLEN	S10B	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S10B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S10B	74.75	30.22	75.33	75.14	72.66	42.64
SO	BUILDLEN	S10B	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S10B	11.45	8.85	5.99	2.94	-30.23	-35.68
SO	XBADJ	S10B	-40.05	-28.63	-49.41	-53.38	-55.73	-31.05
SO	XBADJ	S10B	-34.32	-36.55	-37.66	-37.64	-37.81	-42.20
SO	XBADJ	S10B	-45.30	-47.03	-47.33	-46.19	-43.65	-39.78
SO	XBADJ	S10B	-34.70	-1.59	-25.92	-21.76	-16.93	-11.59
SO	XBADJ	S10B	-5.90	-0.03	5.84	11.54	15.54	13.70
SO	YBADJ	S10B	0.02	4.95	9.73	14.21	26.28	27.05
SO	YBADJ	S10B	5.37	-25.08	2.44	22.01	18.93	26.66
SO	YBADJ	S10B	24.56	21.72	18.22	14.17	9.68	4.90
SO	YBADJ	S10B	-0.02	-4.95	-9.73	-14.21	-26.28	-27.05
SO	YBADJ	S10B	-5.37	25.08	-2.44	-22.01	-18.93	-26.66
SO	YBADJ	S10B	-24.56	-21.72	-18.22	-14.17	-9.68	-4.90

SO	BUILDHGT	S11B	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDHGT	S11B	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDHGT	S11B	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDHGT	S11B	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDHGT	S11B	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDHGT	S11B	16.76	16.76	16.76	16.76	16.76	16.76
SO	BUILDWID	S11B	239.11	235.86	225.45	208.19	184.60	155.40
SO	BUILDWID	S11B	121.48	83.87	43.71	83.87	121.48	155.40
SO	BUILDWID	S11B	184.60	208.19	225.45	235.86	239.11	235.09
SO	BUILDWID	S11B	239.11	235.86	225.45	208.19	184.60	155.40
SO	BUILDWID	S11B	121.48	83.87	43.71	83.87	121.48	155.40
SO	BUILDWID	S11B	184.60	208.19	225.45	235.86	239.11	235.09
SO	BUILDLEN	S11B	83.87	121.48	155.40	184.60	208.19	225.45
SO	BUILDLEN	S11B	235.86	239.11	235.09	239.11	235.86	225.45
SO	BUILDLEN	S11B	208.19	184.60	155.40	121.48	83.87	43.71
SO	BUILDLEN	S11B	83.87	121.48	155.40	184.60	208.19	225.45
SO	BUILDLEN	S11B	235.86	239.11	235.09	239.11	235.86	225.45
SO	BUILDLEN	S11B	208.19	184.60	155.40	121.48	83.87	43.71
SO	XBADJ	S11B	-78.21	-114.45	-147.21	-175.51	-198.46	-215.39
SO	XBADJ	S11B	-225.78	-229.30	-225.86	-223.14	-213.65	-197.66
SO	XBADJ	S11B	-175.67	-148.34	-116.50	-81.12	-43.28	-4.12
SO	XBADJ	S11B	-5.66	-7.03	-8.18	-9.09	-9.72	-10.06
SO	XBADJ	S11B	-10.09	-9.81	-9.23	-15.97	-22.22	-27.79
SO	XBADJ	S11B	-32.52	-36.26	-38.90	-40.36	-40.59	-39.59
SO	YBADJ	S11B	103.59	95.72	84.94	71.57	56.04	38.80
SO	YBADJ	S11B	20.38	1.34	-17.73	-36.27	-53.71	-69.51
SO	YBADJ	S11B	-83.21	-94.37	-102.67	-107.85	-109.75	-108.31
SO	YBADJ	S11B	-103.59	-95.72	-84.94	-71.57	-56.04	-38.80
SO	YBADJ	S11B	-20.38	-1.34	17.73	36.27	53.71	69.51
SO	YBADJ	S11B	83.21	94.37	102.67	107.85	109.75	108.31

SO	BUILDHGT	S12B	45.72	45.72	45.72	45.72	39.62	39.62
SO	BUILDHGT	S12B	39.62	30.48	28.55	28.55	28.55	28.55
SO	BUILDHGT	S12B	28.55	28.55	41.45	41.45	41.45	45.72
SO	BUILDHGT	S12B	45.72	45.72	45.72	45.72	39.62	39.62
SO	BUILDHGT	S12B	39.62	30.48	12.19	12.19	0.00	0.00
SO	BUILDHGT	S12B	0.00	28.55	41.45	41.45	41.45	45.72
SO	BUILDWID	S12B	43.57	43.77	42.64	40.22	80.94	78.76
SO	BUILDWID	S12B	74.18	32.64	55.17	57.98	59.03	59.79
SO	BUILDWID	S12B	62.36	63.03	75.46	74.75	73.23	42.04
SO	BUILDWID	S12B	43.57	43.77	42.64	40.22	80.94	78.76
SO	BUILDWID	S12B	74.18	32.64	65.31	66.35	0.00	0.00
SO	BUILDWID	S12B	0.00	63.03	75.46	74.75	73.23	42.04

SO	BUILDLEN	S12B	33.85	38.17	41.34	43.25	84.24	77.21
SO	BUILDLEN	S12B	74.75	30.22	47.24	56.11	63.26	68.50
SO	BUILDLEN	S12B	71.65	72.63	42.42	30.92	23.46	28.49
SO	BUILDLEN	S12B	33.85	38.17	41.34	43.25	84.24	77.21
SO	BUILDLEN	S12B	74.75	30.22	37.26	46.22	0.00	0.00
SO	BUILDLEN	S12B	0.00	72.63	42.42	30.92	23.46	28.49
SO	XBADJ	S12B	77.39	76.70	73.68	68.42	20.69	17.79
SO	XBADJ	S12B	7.43	9.66	-115.21	-125.21	-131.41	-133.62
SO	XBADJ	S12B	-131.77	-125.92	-88.01	-91.19	-94.04	-104.23
SO	XBADJ	S12B	-111.24	-114.88	-115.02	-111.67	-104.93	-95.00
SO	XBADJ	S12B	-82.18	-39.89	-71.84	-70.89	0.00	0.00
SO	XBADJ	S12B	0.00	53.29	45.59	60.27	70.59	75.73
SO	YBADJ	S12B	-16.73	-0.10	16.54	32.67	41.68	48.63
SO	YBADJ	S12B	54.10	31.15	40.12	25.88	10.86	-5.24
SO	YBADJ	S12B	-23.00	-40.06	57.27	44.80	30.98	32.85
SO	YBADJ	S12B	16.73	0.10	-16.54	-32.67	-41.68	-48.63
SO	YBADJ	S12B	-54.10	-31.15	-26.64	-35.48	0.00	0.00
SO	YBADJ	S12B	0.00	40.06	-57.27	-44.80	-30.98	-32.85

SO	BUILDHGT	S13B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S13B	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S13B	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S13B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S13B	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S13B	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S13B	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S13B	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S13B	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDWID	S13B	43.57	43.77	42.64	40.22	52.63	42.42
SO	BUILDWID	S13B	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S13B	43.25	43.85	43.11	41.07	39.23	42.04
SO	BUILDLEN	S13B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S13B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S13B	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S13B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S13B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S13B	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S13B	-15.34	-12.80	-9.87	-6.64	-33.24	-32.03
SO	XBADJ	S13B	-29.84	6.52	-27.21	-26.12	-24.23	3.73
SO	XBADJ	S13B	2.68	1.56	0.38	-0.80	-3.31	-11.08
SO	XBADJ	S13B	-18.51	-25.38	-31.47	-36.62	-40.64	-43.44
SO	XBADJ	S13B	-44.91	-45.75	-48.12	-49.02	-48.43	-46.37
SO	XBADJ	S13B	-42.90	-38.13	-32.20	-25.30	-18.96	-17.42
SO	YBADJ	S13B	-27.24	-26.55	-25.05	-22.79	-11.82	-10.99
SO	YBADJ	S13B	-31.46	-7.83	-28.68	-4.79	-2.72	10.80
SO	YBADJ	S13B	14.99	18.72	21.88	24.38	26.13	27.10
SO	YBADJ	S13B	27.24	26.55	25.05	22.79	11.82	10.99
SO	YBADJ	S13B	31.46	7.83	28.68	4.79	2.72	-10.80
SO	YBADJ	S13B	-14.99	-18.72	-21.88	-24.38	-26.13	-27.10

SO	BUILDHGT	S14B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S14B	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S14B	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDHGT	S14B	45.72	45.72	45.72	45.72	41.45	41.45
SO	BUILDHGT	S14B	39.62	45.72	39.62	41.45	41.45	45.72
SO	BUILDHGT	S14B	45.72	45.72	45.72	45.72	45.72	45.72
SO	BUILDWID	S14B	42.64	42.64	42.64	40.22	52.63	42.42
SO	BUILDWID	S14B	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S14B	42.64	42.64	42.64	41.07	39.23	42.04
SO	BUILDWID	S14B	42.64	42.64	42.64	40.22	52.63	42.42
SO	BUILDWID	S14B	74.18	22.27	79.52	46.59	56.20	41.34
SO	BUILDWID	S14B	42.64	42.64	42.64	41.07	39.23	42.04
SO	BUILDLEN	S14B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S14B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S14B	40.22	36.58	31.82	26.10	22.27	28.49
SO	BUILDLEN	S14B	33.85	38.17	41.34	43.25	73.88	75.46
SO	BUILDLEN	S14B	74.75	39.23	75.33	75.14	72.66	42.64
SO	BUILDLEN	S14B	40.22	36.58	31.82	26.10	22.27	28.49
SO	XBADJ	S14B	33.85	38.17	-2.73	1.77	-23.82	-21.88
SO	XBADJ	S14B	-19.27	17.18	-16.78	-16.23	-15.18	11.66
SO	XBADJ	S14B	40.22	36.58	31.82	0.68	-3.68	-13.30
SO	XBADJ	S14B	33.85	38.17	-38.61	-45.02	-50.07	-53.59
SO	XBADJ	S14B	-55.48	-56.41	-58.55	-58.91	-57.48	-54.30
SO	XBADJ	S14B	40.22	36.58	31.82	-26.78	-18.59	-15.20
SO	YBADJ	S14B	33.85	38.17	-32.98	-29.36	-16.83	-14.29
SO	YBADJ	S14B	-32.95	-7.45	-26.46	-0.79	2.93	17.94
SO	YBADJ	S14B	40.22	36.58	31.82	34.94	36.80	37.53
SO	YBADJ	S14B	33.85	38.17	32.98	29.36	16.83	14.29
SO	YBADJ	S14B	32.95	7.45	26.46	0.79	-2.93	-17.94
SO	YBADJ	S14B	40.22	36.58	31.82	-34.94	-36.80	-37.53

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SO BUILDHGT S15B        41.45    41.45    41.45    41.45    41.45    41.45
SO BUILDHGT S15B        39.62    45.72    39.62    41.45    41.45    41.45
SO BUILDHGT S15B        41.45    41.45    41.45    41.45    41.45    41.45
SO BUILDHGT S15B        41.45    41.45    41.45    41.45    41.45    41.45
SO BUILDHGT S15B        39.62    45.72    39.62    41.45    41.45    41.45
SO BUILDHGT S15B        41.45    41.45    41.45    41.45    41.45    41.45
SO BUILDWID S15B        75.14    72.66    41.51    41.51    52.63    42.42
SO BUILDWID S15B        74.18    22.27    79.52    46.59    56.20    41.51
SO BUILDWID S15B        41.51    41.51    75.46    74.75    73.23    75.33
SO BUILDWID S15B        75.14    72.66    41.51    41.51    52.63    42.42
SO BUILDWID S15B        74.18    22.27    79.52    46.59    56.20    41.51
SO BUILDWID S15B        41.51    41.51    75.46    74.75    73.23    75.33
SO BUILDLEN S15B        46.59    56.20    41.34    43.25    73.88    75.46
SO BUILDLEN S15B        74.75    39.23    75.33    75.14    72.66    42.64
SO BUILDLEN S15B        40.22    36.58    42.42    30.92    23.46    35.56
SO BUILDLEN S15B        46.59    56.20    41.34    43.25    73.88    75.46
SO BUILDLEN S15B        74.75    39.23    75.33    75.14    72.66    42.64
SO BUILDLEN S15B        40.22    36.58    42.42    30.92    23.46    35.56
SO XBADJ    S15B       -19.52   -18.71    41.34    43.25   -13.05   -10.28
SO XBADJ    S15B        -7.20    29.36    -4.85    -4.92    -4.85    42.64
SO XBADJ    S15B        40.22    36.58    -3.15    -2.45    -4.11   -15.83
SO XBADJ    S15B       -27.07   -37.49    41.34    43.25   -60.83   -65.18
SO XBADJ    S15B       -67.55   -68.60   -70.48   -70.21   -67.82    42.64
SO XBADJ    S15B        40.22    36.58   -39.27   -28.47   -19.35   -19.73
SO YBADJ    S15B       -32.64   -31.48    41.34    43.25   -22.55   -18.06
SO YBADJ    S15B       -34.64    -7.03   -23.93     3.78     9.39    42.64
SO YBADJ    S15B        40.22    36.58    27.45    30.17    31.98    32.81
SO YBADJ    S15B        32.64    31.49    41.34    43.25    22.55    18.06
SO YBADJ    S15B        34.64     7.03    23.93    -3.78    -9.39    42.64
SO YBADJ    S15B        40.22    36.58   -27.45   -30.17   -31.98   -32.81


SO BUILDHGT S16B        45.72    45.72    45.72    39.62    39.62    39.62
SO BUILDHGT S16B        39.62    30.48    39.62    41.45    41.45    45.72
SO BUILDHGT S16B        45.72    45.72    45.72    45.72    45.72    45.72
SO BUILDHGT S16B        45.72    45.72    45.72    39.62    39.62    39.62
SO BUILDHGT S16B        39.62    30.48    39.62    41.45    41.45    45.72
SO BUILDHGT S16B        45.72    45.72    45.72    45.72    45.72    45.72
SO BUILDWID S16B        43.57    43.77    42.64    80.66    80.94    78.76
SO BUILDWID S16B        74.18    32.64    79.52    46.59    56.20    41.34
SO BUILDWID S16B        43.25    43.85    43.11    41.07    39.23    42.04
SO BUILDWID S16B        43.57    43.77    42.64    80.66    80.94    78.76
SO BUILDWID S16B        74.18    32.64    79.52    46.59    56.20    41.34
SO BUILDWID S16B        43.25    43.85    43.11    41.07    39.23    42.04
SO BUILDLEN S16B        33.85    38.17    41.34    88.71    84.24    77.21
SO BUILDLEN S16B        74.75    30.22    75.33    75.14    72.66    42.64
SO BUILDLEN S16B        40.22    36.58    31.82    26.10    22.27    28.49
SO BUILDLEN S16B        33.85    38.17    41.34    88.71    84.24    77.21
SO BUILDLEN S16B        74.75    30.22    75.33    75.14    72.66    42.64
SO BUILDLEN S16B        40.22    36.58    31.82    26.10    22.27    28.49
SO XBADJ    S16B        29.19    21.94    14.02   -39.78   -43.23   -45.37
SO XBADJ    S16B       -53.05   -46.29   -71.19   -78.63   -83.68   -60.84
SO XBADJ    S16B       -65.06   -67.29   -67.48   -65.62   -63.12   -64.05
SO XBADJ    S16B       -63.04   -60.11   -55.36   -48.93   -41.01   -31.84
SO XBADJ    S16B       -21.70    16.07    -4.14     3.49    11.01    18.20
SO XBADJ    S16B        24.84    30.72    35.66    39.53    40.84    35.56
SO YBADJ    S16B        25.27    32.90    39.52    45.74    42.87    38.70
SO YBADJ    S16B        33.36     0.22    24.29    39.75    32.01    34.69
SO YBADJ    S16B        27.30    19.08    10.28     1.17    -7.98   -16.88
SO YBADJ    S16B       -25.27   -32.90   -39.52   -45.74   -42.87   -38.70
SO YBADJ    S16B       -33.36    -0.22   -24.29   -39.75   -32.01   -34.69
SO YBADJ    S16B       -27.30   -19.08   -10.28    -1.17     7.98    16.88

**
SO EMISFACT BLR3    MONTH 1 1 1 0 0 0 0 0 0 0 1 1

SO EMISFACT PILEON  MONTH 1 1 1 1 1 0 0 0 0 0 1 1
SO EMISFACT PILEOF  MONTH 0 0 0 0 0 1 1 1 1 1 0 0

SO EMISFACT CNVON1 MONTH 1 1 1 1 1 0 0 0 0 0 1 1
SO EMISFACT CNVON2 MONTH 1 1 1 1 1 0 0 0 0 0 1 1
SO EMISFACT CNVON3 MONTH 1 1 1 1 1 0 0 0 0 0 1 1
SO EMISFACT CNVON4 MONTH 1 1 1 1 1 0 0 0 0 0 1 1

SO EMISFACT CNVOF1 MONTH 0 0 0 0 0 1 1 1 1 1 0 0
SO EMISFACT CNVOF2 MONTH 0 0 0 0 0 1 1 1 1 1 0 0
SO EMISFACT CNVOF3 MONTH 0 0 0 0 0 1 1 1 1 1 0 0
SO EMISFACT CNVOF4 MONTH 0 0 0 0 0 1 1 1 1 1 0 0

SO EMISFACT PILEONB  MONTH 1 1 1 1 1 0 0 0 0 0 1 1
SO EMISFACT PILEOFB  MONTH 0 0 0 0 0 1 1 1 1 1 0 0

SO EMISFACT CNVON1B MONTH 1 1 1 1 1 0 0 0 0 0 1 1
SO EMISFACT CNVON2B MONTH 1 1 1 1 1 0 0 0 0 0 1 1
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SO EMISFACT CNVON3B MONTH 1 1 1 1 1 0 0 0 0 0 1 1
SO EMISFACT CNVON4B MONTH 1 1 1 1 1 0 0 0 0 0 1 1

SO EMISFACT CNVOF1B MONTH 0 0 0 0 0 1 1 1 1 1 0 0
SO EMISFACT CNVOF2B MONTH 0 0 0 0 0 1 1 1 1 1 0 0
SO EMISFACT CNVOF3B MONTH 0 0 0 0 0 1 1 1 1 1 0 0
SO EMISFACT CNVOF4B MONTH 0 0 0 0 0 1 1 1 1 1 0 0

**
SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
**
SO SRCGROUP 8100 BLR8100

SO SRCGROUP 38100 BLR8100 S1-S16 S1B-S16B BLR3
SO SRCGROUP 38100 PILEON CNVON1-CNVON4 PILEOF CNVOF1-CNVOF4
SO SRCGROUP 38100 PILEONB CNVON1B-CNVON4B PILEOFB CNVOF1B-CNVOF4B
**
SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG   0.0    0.0
RE GRIDPOLR POL DIST  2000 3000 4000 5000 7000 10000 15000 20000 25000
RE GRIDPOLR POL GDIR   36  10.00  10.00
RE GRIDPOLR POL END
RE DISCPOLR  BLR4       463.         10.
RE DISCPOLR  BLR4       600.         10.
RE DISCPOLR  BLR4       900.         10.
RE DISCPOLR  BLR4      1200.         10.
RE DISCPOLR  BLR4      1500.         10.
RE DISCPOLR  BLR4      1800.         10.
RE DISCPOLR  BLR4       485.         20.
RE DISCPOLR  BLR4       600.         20.
RE DISCPOLR  BLR4       900.         20.
RE DISCPOLR  BLR4      1200.         20.
RE DISCPOLR  BLR4      1500.         20.
RE DISCPOLR  BLR4      1800.         20.
RE DISCPOLR  BLR4       527.         30.
RE DISCPOLR  BLR4       600.         30.
RE DISCPOLR  BLR4       900.         30.
RE DISCPOLR  BLR4      1200.         30.
RE DISCPOLR  BLR4      1500.         30.
RE DISCPOLR  BLR4      1800.         30.
RE DISCPOLR  BLR4       538.         32.
RE DISCPOLR  BLR4       550.         34.
RE DISCPOLR  BLR4       564.         36.
RE DISCPOLR  BLR4       579.         38.
RE DISCPOLR  BLR4       595.         40.
RE DISCPOLR  BLR4       600.         40.
RE DISCPOLR  BLR4       900.         40.
RE DISCPOLR  BLR4      1200.         40.
RE DISCPOLR  BLR4      1500.         40.
RE DISCPOLR  BLR4      1800.         40.
RE DISCPOLR  BLR4       614.         42.
RE DISCPOLR  BLR4       634.         44.
RE DISCPOLR  BLR4       656.         46.
RE DISCPOLR  BLR4       681.         48.
RE DISCPOLR  BLR4       709.         50.
RE DISCPOLR  BLR4       900.         50.
RE DISCPOLR  BLR4      1200.         50.
RE DISCPOLR  BLR4      1500.         50.
RE DISCPOLR  BLR4      1800.         50.
RE DISCPOLR  BLR4       741.         52.
RE DISCPOLR  BLR4       776.         54.
RE DISCPOLR  BLR4       815.         56.
RE DISCPOLR  BLR4       861.         58.
RE DISCPOLR  BLR4       912.         60.
RE DISCPOLR  BLR4      1200.         60.
RE DISCPOLR  BLR4      1500.         60.
RE DISCPOLR  BLR4      1800.         60.
RE DISCPOLR  BLR4       971.         62.
RE DISCPOLR  BLR4      1040.         64.
RE DISCPOLR  BLR4      1121.         66.
RE DISCPOLR  BLR4      1217.         68.
RE DISCPOLR  BLR4      1333.         70.
RE DISCPOLR  BLR4      1500.         70.
RE DISCPOLR  BLR4      1800.         70.
RE DISCPOLR  BLR4      1476.         72.
RE DISCPOLR  BLR4      1654.         74.
RE DISCPOLR  BLR4      1885.         76.
RE DISCPOLR  BLR4      2062.         78.
RE DISCPOLR  BLR4      2048.         80.
RE DISCPOLR  BLR4      2037.         82.
RE DISCPOLR  BLR4      2028.         84.
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RE	DISCPOLR	BLR4	2022.	86.
RE	DISCPOLR	BLR4	2018.	88.
RE	DISCPOLR	BLR4	2017.	90.
RE	DISCPOLR	BLR4	2018.	92.
RE	DISCPOLR	BLR4	2022.	94.
RE	DISCPOLR	BLR4	2028.	96.
RE	DISCPOLR	BLR4	2037.	98.
RE	DISCPOLR	BLR4	1785.	100.
RE	DISCPOLR	BLR4	1800.	100.
RE	DISCPOLR	BLR4	1491.	102.
RE	DISCPOLR	BLR4	1281.	104.
RE	DISCPOLR	BLR4	1125.	106.
RE	DISCPOLR	BLR4	1003.	108.
RE	DISCPOLR	BLR4	906.	110.
RE	DISCPOLR	BLR4	1200.	110.
RE	DISCPOLR	BLR4	1500.	110.
RE	DISCPOLR	BLR4	1800.	110.
RE	DISCPOLR	BLR4	828.	112.
RE	DISCPOLR	BLR4	762.	114.
RE	DISCPOLR	BLR4	707.	116.
RE	DISCPOLR	BLR4	663.	118.
RE	DISCPOLR	BLR4	675.	120.
RE	DISCPOLR	BLR4	900.	120.
RE	DISCPOLR	BLR4	1200.	120.
RE	DISCPOLR	BLR4	1500.	120.
RE	DISCPOLR	BLR4	1800.	120.
RE	DISCPOLR	BLR4	690.	122.
RE	DISCPOLR	BLR4	706.	124.
RE	DISCPOLR	BLR4	723.	126.
RE	DISCPOLR	BLR4	742.	128.
RE	DISCPOLR	BLR4	764.	130.
RE	DISCPOLR	BLR4	900.	130.
RE	DISCPOLR	BLR4	1200.	130.
RE	DISCPOLR	BLR4	1500.	130.
RE	DISCPOLR	BLR4	1800.	130.
RE	DISCPOLR	BLR4	787.	132.
RE	DISCPOLR	BLR4	813.	134.
RE	DISCPOLR	BLR4	842.	136.
RE	DISCPOLR	BLR4	874.	138.
RE	DISCPOLR	BLR4	910.	140.
RE	DISCPOLR	BLR4	1200.	140.
RE	DISCPOLR	BLR4	1500.	140.
RE	DISCPOLR	BLR4	1800.	140.
RE	DISCPOLR	BLR4	950.	142.
RE	DISCPOLR	BLR4	995.	144.
RE	DISCPOLR	BLR4	1046.	146.
RE	DISCPOLR	BLR4	1104.	148.
RE	DISCPOLR	BLR4	1170.	150.
RE	DISCPOLR	BLR4	1200.	150.
RE	DISCPOLR	BLR4	1500.	150.
RE	DISCPOLR	BLR4	1800.	150.
RE	DISCPOLR	BLR4	1246.	152.
RE	DISCPOLR	BLR4	1244.	154.
RE	DISCPOLR	BLR4	1224.	156.
RE	DISCPOLR	BLR4	1206.	158.
RE	DISCPOLR	BLR4	1190.	160.
RE	DISCPOLR	BLR4	1200.	160.
RE	DISCPOLR	BLR4	1500.	160.
RE	DISCPOLR	BLR4	1800.	160.
RE	DISCPOLR	BLR4	1176	162.
RE	DISCPOLR	BLR4	1163.	164.
RE	DISCPOLR	BLR4	1152.	166.
RE	DISCPOLR	BLR4	1143.	168.
RE	DISCPOLR	BLR4	1135.	170.
RE	DISCPOLR	BLR4	1200.	170.
RE	DISCPOLR	BLR4	1500.	170.
RE	DISCPOLR	BLR4	1800.	170.
RE	DISCPOLR	BLR4	1129	172.
RE	DISCPOLR	BLR4	1124.	174.
RE	DISCPOLR	BLR4	1121.	176.
RE	DISCPOLR	BLR4	1119.	178.
RE	DISCPOLR	BLR4	1118.	180.
RE	DISCPOLR	BLR4	1200.	180.
RE	DISCPOLR	BLR4	1500.	180.
RE	DISCPOLR	BLR4	1800.	180.
RE	DISCPOLR	BLR4	1119	182.
RE	DISCPOLR	BLR4	1121.	184.
RE	DISCPOLR	BLR4	1124.	186.
RE	DISCPOLR	BLR4	1129.	188.
RE	DISCPOLR	BLR4	1135.	190.
RE	DISCPOLR	BLR4	1200.	190.
RE	DISCPOLR	BLR4	1500.	190.
RE	DISCPOLR	BLR4	1800.	190.
RE	DISCPOLR	BLR4	1143	192.

RE	DISCPOLR	BLR4	1152.	194.
RE	DISCPOLR	BLR4	1163.	196.
RE	DISCPOLR	BLR4	1176.	198.
RE	DISCPOLR	BLR4	1178.	200.
RE	DISCPOLR	BLR4	1200.	200.
RE	DISCPOLR	BLR4	1500.	200.
RE	DISCPOLR	BLR4	1800.	200.
RE	DISCPOLR	BLR4	1076	202.
RE	DISCPOLR	BLR4	991.	204.
RE	DISCPOLR	BLR4	919.	206.
RE	DISCPOLR	BLR4	858.	208.
RE	DISCPOLR	BLR4	806.	210.
RE	DISCPOLR	BLR4	900.	210.
RE	DISCPOLR	BLR4	1200.	210.
RE	DISCPOLR	BLR4	1500.	210.
RE	DISCPOLR	BLR4	1800.	210.
RE	DISCPOLR	BLR4	760	212.
RE	DISCPOLR	BLR4	721.	214.
RE	DISCPOLR	BLR4	686.	216.
RE	DISCPOLR	BLR4	655.	218.
RE	DISCPOLR	BLR4	627.	220.
RE	DISCPOLR	BLR4	900.	220.
RE	DISCPOLR	BLR4	1200.	220.
RE	DISCPOLR	BLR4	1500.	220.
RE	DISCPOLR	BLR4	1800.	220.
RE	DISCPOLR	BLR4	602	222.
RE	DISCPOLR	BLR4	580.	224.
RE	DISCPOLR	BLR4	560.	226.
RE	DISCPOLR	BLR4	542.	228.
RE	DISCPOLR	BLR4	526.	230.
RE	DISCPOLR	BLR4	600.	230.
RE	DISCPOLR	BLR4	900.	230.
RE	DISCPOLR	BLR4	1200.	230.
RE	DISCPOLR	BLR4	1500.	230.
RE	DISCPOLR	BLR4	1800.	230.
RE	DISCPOLR	BLR4	465.	240.
RE	DISCPOLR	BLR4	600.	240.
RE	DISCPOLR	BLR4	900.	240.
RE	DISCPOLR	BLR4	1200.	240.
RE	DISCPOLR	BLR4	1500.	240.
RE	DISCPOLR	BLR4	1800.	240.
RE	DISCPOLR	BLR4	429.	250.
RE	DISCPOLR	BLR4	600.	250.
RE	DISCPOLR	BLR4	900.	250.
RE	DISCPOLR	BLR4	1200.	250.
RE	DISCPOLR	BLR4	1500.	250.
RE	DISCPOLR	BLR4	1800.	250.
RE	DISCPOLR	BLR4	409.	260.
RE	DISCPOLR	BLR4	600.	260.
RE	DISCPOLR	BLR4	900.	260.
RE	DISCPOLR	BLR4	1200.	260.
RE	DISCPOLR	BLR4	1500.	260.
RE	DISCPOLR	BLR4	1800.	260.
RE	DISCPOLR	BLR4	403.	270.
RE	DISCPOLR	BLR4	600.	270.
RE	DISCPOLR	BLR4	900.	270.
RE	DISCPOLR	BLR4	1200.	270.
RE	DISCPOLR	BLR4	1500.	270.
RE	DISCPOLR	BLR4	1800.	270.
RE	DISCPOLR	BLR4	409.	280.
RE	DISCPOLR	BLR4	600.	280.
RE	DISCPOLR	BLR4	900.	280.
RE	DISCPOLR	BLR4	1200.	280.
RE	DISCPOLR	BLR4	1500.	280.
RE	DISCPOLR	BLR4	1800.	280.
RE	DISCPOLR	BLR4	429.	290.
RE	DISCPOLR	BLR4	600.	290.
RE	DISCPOLR	BLR4	900.	290.
RE	DISCPOLR	BLR4	1200.	290.
RE	DISCPOLR	BLR4	1500.	290.
RE	DISCPOLR	BLR4	1800.	290.
RE	DISCPOLR	BLR4	465.	300.
RE	DISCPOLR	BLR4	600.	300.
RE	DISCPOLR	BLR4	900.	300.
RE	DISCPOLR	BLR4	1200.	300.
RE	DISCPOLR	BLR4	1500.	300.
RE	DISCPOLR	BLR4	1800.	300.
RE	DISCPOLR	BLR4	526.	310.
RE	DISCPOLR	BLR4	600.	310.
RE	DISCPOLR	BLR4	900.	310.
RE	DISCPOLR	BLR4	1200.	310.
RE	DISCPOLR	BLR4	1500.	310.
RE	DISCPOLR	BLR4	1800.	310.
RE	DISCPOLR	BLR4	542	312.

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RE DISCPOLR  BLR4        560.         314.
RE DISCPOLR  BLR4        580.         316.
RE DISCPOLR  BLR4        602.         318.
RE DISCPOLR  BLR4        595.         320.
RE DISCPOLR  BLR4        600.         320.
RE DISCPOLR  BLR4        900.         320.
RE DISCPOLR  BLR4       1200.         320.
RE DISCPOLR  BLR4       1500.         320.
RE DISCPOLR  BLR4       1800.         320.
RE DISCPOLR  BLR4        579          322.
RE DISCPOLR  BLR4        564.         324.
RE DISCPOLR  BLR4        550.         326.
RE DISCPOLR  BLR4        538.         328.
RE DISCPOLR  BLR4        527.         330.
RE DISCPOLR  BLR4        600.         330.
RE DISCPOLR  BLR4        900.         330.
RE DISCPOLR  BLR4       1200.         330.
RE DISCPOLR  BLR4       1500.         330.
RE DISCPOLR  BLR4       1800.         330.
RE DISCPOLR  BLR4        485.         340.
RE DISCPOLR  BLR4        600.         340.
RE DISCPOLR  BLR4        900.         340.
RE DISCPOLR  BLR4       1200.         340.
RE DISCPOLR  BLR4       1500.         340.
RE DISCPOLR  BLR4       1800.         340.
RE DISCPOLR  BLR4        463.         350.
RE DISCPOLR  BLR4        600.         350.
RE DISCPOLR  BLR4        900.         350.
RE DISCPOLR  BLR4       1200.         350.
RE DISCPOLR  BLR4       1500.         350.
RE DISCPOLR  BLR4       1800.         350.
RE DISCPOLR  BLR4        456.         360.
RE DISCPOLR  BLR4        600.         360.
RE DISCPOLR  BLR4        900.         360.
RE DISCPOLR  BLR4       1200.         360.
RE DISCPOLR  BLR4       1500.         360.
RE DISCPOLR  BLR4       1800.         360.
RE FINISHED

ME STARTING
ME INPUTFIL P:\MET\PBIPBI87.MET
ME ANEMHGHT    33 FEET
ME SURFDATA  12844  1987        PALM_BEACH_INTER
ME UAIRDATA  12844  1987        PALM_BEACH_INTER
ME WINDCATS    1.54     3.09     5.14     8.23    10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
```

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :NO2RAN.O90
First title for last output file is: 1990 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- NO2 SIL 03/25/03
Second title for last output file is: BLR 8 EXIT GAS COND@80% LOAD; HS= 199 FT ANNUAL REFINED

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: 8080					
Annual					
	1990	0.48311	300.00	4000.00	90123124
SOURCE GROUP ID: 38080					
Annual					
	1990	0.45358	300.00	4100.00	90123124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :NO2SAN.087
PRIME OUTPUT FILE NUMBER 2 :NO2SAN.088
PRIME OUTPUT FILE NUMBER 3 :NO2SAN.089
PRIME OUTPUT FILE NUMBER 4 :NO2SAN.090
PRIME OUTPUT FILE NUMBER 5 :NO2SAN.091
rst title for last output file is: 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- NO2 SIL 03/25/03
cond title for last output file is: BLR 8 EXIT GAS COND@80% LOAD; HS= 199 FT ANNUAL

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	8080				
Annual					
	1987	0.40144	300.00	4000.00	87123124
	1988	0.37181	270.00	3000.00	88123124
	1989	0.41844	300.00	4000.00	89123124
	1990	0.48311	300.00	4000.00	90123124
	1991	0.45407	300.00	4000.00	91123124
SOURCE GROUP ID:	38080				
Annual					
	1987	0.38402	300.00	4000.00	87123124
	1988	0.33489	270.00	4000.00	88123124
	1989	0.39513	300.00	4000.00	89123124
	1990	0.45318	300.00	4000.00	90123124
	1991	0.43325	300.00	4000.00	91123124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

BEST AVAILABLE COPY

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CO STARTING
CO TITLEONE 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- NO2 SIL  03/25/03
CO TITLETWO BLR 8 EXIT GAS COND@80% LOAD; HS= 199 FT ANNUAL
CO MODELOPT DFAULT CONC   RURAL NOCMPL
CO AVERTIME PERIOD
CO POLLUTID NO2
CO DCAYCOEF     .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING
**
** BLR 4 ORIGIN FOR GRID INCLUDING DISCRETE RECP
**
** Source Location Cards:
**            SRCID    SRCTYP       XS     YS
**
SO LOCATION  BLR4     POINT        0.0    0.0
SO LOCATION  BLR8080  POINT      -82.0   51.0
SO LOCATION  BLR3     POINT      28.96   5.49
**
** Source Parameter Cards:
** POINT:    SRCID        QS       HS      TS      VS      DS

SO SRCPARAM  BLR4        0.0     45.7   344.3   25.66    2.50
SO SRCPARAM  BLR8080    21.4     60.7    439     12.3    3.96
SO SRCPARAM  BLR3      -1.37     64.9    330     14.2    2.44

SO BUILDHGT BLR8080       29.87    21.03    21.03    21.03    21.03    21.03
SO BUILDHGT BLR8080       21.03    21.03    21.03    21.03    26.67    26.67
SO BUILDHGT BLR8080       26.67    26.67    29.87    29.87    25.30    25.30
SO BUILDHGT BLR8080       29.87    21.03    21.03    21.03    21.03    21.03
SO BUILDHGT BLR8080       21.03    21.03    21.03    21.03    26.67    26.67
SO BUILDHGT BLR8080       26.67    26.67    29.87    29.87    29.87    25.30
SO BUILDWID BLR8080       22.52    24.06    25.28    25.72    25.38    24.27
SO BUILDWID BLR8080       22.42    22.34    24.08    25.09    40.07    66.68
SO BUILDWID BLR8080       31.14    31.17    27.37    26.43    73.92    69.74
SO BUILDWID BLR8080       22.52    24.06    25.28    25.72    25.38    24.27
SO BUILDWID BLR8080       22.42    22.34    24.08    25.09    40.07    30.65
SO BUILDWID BLR8080       31.14    30.69    27.37    26.43    22.52    69.74
SO BUILDLEN BLR8080       30.73    25.34    24.82    23.54    21.55    18.90
SO BUILDLEN BLR8080       15.68    16.30    19.51    22.12    61.75    92.90
SO BUILDLEN BLR8080       68.20    68.35    33.25    32.48    41.83    32.31
SO BUILDLEN BLR8080       30.73    25.34    24.82    23.54    21.55    18.90
SO BUILDLEN BLR8080       15.68    16.30    19.51    22.12    61.75    29.31
SO BUILDLEN BLR8080       30.69    31.14    33.25    32.48    30.73    32.31
SO XBADJ    BLR8080      -75.00   -29.25   -26.62   -23.18   -19.03   -14.31
SO XBADJ    BLR8080       -9.15    -5.88    -3.96    -1.93    51.96    26.44
SO XBADJ    BLR8080       53.15    51.32    33.25    46.48    48.25    46.42
SO XBADJ    BLR8080       44.27     3.91     1.80    -0.36    -2.51    -4.59
SO XBADJ    BLR8080       -6.53   -10.42   -15.54   -20.19  -113.71  -119.35
SO XBADJ    BLR8080     -121.35  -119.67    33.25   -78.96   -78.98   -78.73
SO YBADJ    BLR8080      -22.15   -12.20   -14.89   -17.13   -18.85   -20.00
SO YBADJ    BLR8080      -20.54   -20.46   -19.75   -18.45   -29.24   -31.74
SO YBADJ    BLR8080        1.69    19.84    33.25   -10.63    26.12    37.37
SO YBADJ    BLR8080       22.15    12.20    14.89    17.13    18.85    20.00
SO YBADJ    BLR8080       20.54    20.46    19.75    18.45    29.24    16.74
SO YBADJ    BLR8080       -1.69   -20.08    33.25    10.63    -0.42   -37.37

SO BUILDHGT BLR3       26.67    26.67    26.67    26.67    26.67    26.67
SO BUILDHGT BLR3       26.67    26.67    26.67    26.67    26.67    21.03
SO BUILDHGT BLR3       20.73    20.73    20.73    20.50    20.50    20.50
SO BUILDHGT BLR3       26.67    26.67    26.67    26.67    26.67    26.67
SO BUILDHGT BLR3       26.67    26.67    26.67    41.45    41.45    41.45
SO BUILDHGT BLR3       28.55    28.55    28.55    28.55    21.03    20.73
SO BUILDWID BLR3       55.65    27.03    29.31    30.69    31.14    30.65
SO BUILDWID BLR3       29.22    26.91    49.07    26.91    40.07    85.57
SO BUILDWID BLR3      105.13   109.15    55.67    43.68    39.97    35.05
SO BUILDWID BLR3       55.65    27.03    29.31    30.69    31.14    30.65
SO BUILDWID BLR3       29.22    26.91    49.07    46.59    56.20    64.10
SO BUILDWID BLR3       62.36    63.03    61.79    58.68    32.97    24.69
SO BUILDLEN BLR3       45.26    29.22    30.65    31.14    30.69    29.31
SO BUILDLEN BLR3       27.03    23.94    47.85    23.94    61.75    93.35
SO BUILDLEN BLR3      111.89   108.40    71.74    41.49    37.00    31.39
SO BUILDLEN BLR3       45.26    29.22    30.65    31.14    30.69    29.31
SO BUILDLEN BLR3       27.03    23.94    47.85    75.14    72.66    67.98
SO BUILDLEN BLR3       71.65    72.63    71.40    68.00    76.49    68.58
SO XBADJ    BLR3      -39.44   -44.46   -48.13   -50.33   -51.01   -50.14
SO XBADJ    BLR3      -47.74   -43.89   -66.45   -36.48   -67.86    39.30
SO XBADJ    BLR3       28.36    35.20    40.96     1.38     1.17     0.91
SO XBADJ    BLR3       -5.82    15.24    17.48    19.19    20.32    20.83
SO XBADJ    BLR3       20.70    19.95    18.59  -213.31  -211.14  -202.55
SO XBADJ    BLR3     -140.25  -143.59  -142.57  -137.22  -124.00  -118.87
SO YBADJ    BLR3       40.37    19.63    14.14     8.23     2.07    -4.15
```

BEST AVAILABLE COPY

```
SO YBADJ     BLR3       -10.25  -16.04   -8.69  -25.99  -24.43  -50.41
SO YBADJ     BLR3       -41.83  -25.80  -36.09   12.22   15.88   19.05
SO YBADJ     BLR3       -40.37  -19.63  -14.14   -8.23   -2.07    4.15
SO YBADJ     BLR3        10.25   16.04    8.69   10.02  -20.65  -50.69
SO YBADJ     BLR3        20.44    2.75  -15.03  -32.35  -15.06   -7.16
**
SO EMISFACT BLR3   MONTH 1 1 1 0 0 0 0 0 0 0 1 1
**
SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
**
SO SRCGROUP 8080 BLR8080
SO SRCGROUP 38080 BLR8080 BLR3
**
SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG   0.0   0.0
RE GRIDPOLR POL DIST  2000 3000 4000 5000 7000 10000 15000 20000 25000
RE GRIDPOLR POL GDIR   36  10.00  10.00
RE GRIDPOLR POL END
RE DISCPOLR  BLR4       463.         10.
RE DISCPOLR  BLR4       600.         10.
RE DISCPOLR  BLR4       900.         10.
RE DISCPOLR  BLR4      1200.         10.
RE DISCPOLR  BLR4      1500.         10.
RE DISCPOLR  BLR4      1800.         10.
RE DISCPOLR  BLR4       485.         20.
RE DISCPOLR  BLR4       600.         20.
RE DISCPOLR  BLR4       900.         20.
RE DISCPOLR  BLR4      1200.         20.
RE DISCPOLR  BLR4      1500.         20.
RE DISCPOLR  BLR4      1800.         20.
RE DISCPOLR  BLR4       527.         30.
RE DISCPOLR  BLR4       600.         30.
RE DISCPOLR  BLR4       900.         30.
RE DISCPOLR  BLR4      1200.         30.
RE DISCPOLR  BLR4      1500.         30.
RE DISCPOLR  BLR4      1800.         30.
RE DISCPOLR  BLR4       538.         32.
RE DISCPOLR  BLR4       550.         34.
RE DISCPOLR  BLR4       564.         36.
RE DISCPOLR  BLR4       579.         38.
RE DISCPOLR  BLR4       595.         40.
RE DISCPOLR  BLR4       600.         40.
RE DISCPOLR  BLR4       900.         40.
RE DISCPOLR  BLR4      1200.         40.
RE DISCPOLR  BLR4      1500.         40.
RE DISCPOLR  BLR4      1800.         40.
RE DISCPOLR  BLR4       614.         42.
RE DISCPOLR  BLR4       634.         44.
RE DISCPOLR  BLR4       656.         46.
RE DISCPOLR  BLR4       681.         48.
RE DISCPOLR  BLR4       709.         50.
RE DISCPOLR  BLR4       900.         50.
RE DISCPOLR  BLR4      1200.         50.
RE DISCPOLR  BLR4      1500.         50.
RE DISCPOLR  BLR4      1800.         50.
RE DISCPOLR  BLR4       741.         52.
RE DISCPOLR  BLR4       776.         54.
RE DISCPOLR  BLR4       815.         56.
RE DISCPOLR  BLR4       861.         58.
RE DISCPOLR  BLR4       912.         60.
RE DISCPOLR  BLR4      1200.         60.
RE DISCPOLR  BLR4      1500.         60.
RE DISCPOLR  BLR4      1800.         60.
RE DISCPOLR  BLR4       971.         62.
RE DISCPOLR  BLR4      1040.         64.
RE DISCPOLR  BLR4      1121.         66.
RE DISCPOLR  BLR4      1217.         68.
RE DISCPOLR  BLR4      1333.         70.
RE DISCPOLR  BLR4      1500.         70.
RE DISCPOLR  BLR4      1800.         70.
RE DISCPOLR  BLR4      1476.         72.
RE DISCPOLR  BLR4      1654.         74.
RE DISCPOLR  BLR4      1885.         76.
RE DISCPOLR  BLR4      2062.         78.
RE DISCPOLR  BLR4      2048.         80.
RE DISCPOLR  BLR4      2037.         82.
RE DISCPOLR  BLR4      2028.         84.
RE DISCPOLR  BLR4      2022.         86.
RE DISCPOLR  BLR4      2018.         88.
RE DISCPOLR  BLR4      2017.         90.
RE DISCPOLR  BLR4      2018.         92.
```

RE	DISCPOLR	BLR4	2022.	94.
RE	DISCPOLR	BLR4	2028.	96.
RE	DISCPOLR	BLR4	2037.	98.
RE	DISCPOLR	BLR4	1785.	100.
RE	DISCPOLR	BLR4	1800.	100.
RE	DISCPOLR	BLR4	1491.	102.
RE	DISCPOLR	BLR4	1281.	104.
RE	DISCPOLR	BLR4	1125.	106.
RE	DISCPOLR	BLR4	1003.	108.
RE	DISCPOLR	BLR4	906.	110.
RE	DISCPOLR	BLR4	1200.	110.
RE	DISCPOLR	BLR4	1500.	110.
RE	DISCPOLR	BLR4	1800.	110.
RE	DISCPOLR	BLR4	828.	112.
RE	DISCPOLR	BLR4	762.	114.
RE	DISCPOLR	BLR4	707.	116.
RE	DISCPOLR	BLR4	663.	118.
RE	DISCPOLR	BLR4	675.	120.
RE	DISCPOLR	BLR4	900.	120.
RE	DISCPOLR	BLR4	1200.	120.
RE	DISCPOLR	BLR4	1500.	120.
RE	DISCPOLR	BLR4	1800.	120.
RE	DISCPOLR	BLR4	690.	122.
RE	DISCPOLR	BLR4	706.	124.
RE	DISCPOLR	BLR4	723.	126.
RE	DISCPOLR	BLR4	742.	128.
RE	DISCPOLR	BLR4	764.	130.
RE	DISCPOLR	BLR4	900.	130.
RE	DISCPOLR	BLR4	1200.	130.
RE	DISCPOLR	BLR4	1500.	130.
RE	DISCPOLR	BLR4	1800.	130.
RE	DISCPOLR	BLR4	787.	132.
RE	DISCPOLR	BLR4	813.	134.
RE	DISCPOLR	BLR4	842.	136.
RE	DISCPOLR	BLR4	874.	138.
RE	DISCPOLR	BLR4	910.	140.
RE	DISCPOLR	BLR4	1200.	140.
RE	DISCPOLR	BLR4	1500.	140.
RE	DISCPOLR	BLR4	1800.	140.
RE	DISCPOLR	BLR4	950.	142.
RE	DISCPOLR	BLR4	995.	144.
RE	DISCPOLR	BLR4	1046.	146.
RE	DISCPOLR	BLR4	1104.	148.
RE	DISCPOLR	BLR4	1170.	150.
RE	DISCPOLR	BLR4	1200.	150.
RE	DISCPOLR	BLR4	1500.	150.
RE	DISCPOLR	BLR4	1800.	150.
RE	DISCPOLR	BLR4	1246.	152.
RE	DISCPOLR	BLR4	1244.	154.
RE	DISCPOLR	BLR4	1224.	156.
RE	DISCPOLR	BLR4	1206.	158.
RE	DISCPOLR	BLR4	1190.	160.
RE	DISCPOLR	BLR4	1200.	160.
RE	DISCPOLR	BLR4	1500.	160.
RE	DISCPOLR	BLR4	1800.	160.
RE	DISCPOLR	BLR4	1176	162.
RE	DISCPOLR	BLR4	1163.	164.
RE	DISCPOLR	BLR4	1152.	166.
RE	DISCPOLR	BLR4	1143.	168.
RE	DISCPOLR	BLR4	1135.	170.
RE	DISCPOLR	BLR4	1200.	170.
RE	DISCPOLR	BLR4	1500.	170.
RE	DISCPOLR	BLR4	1800.	170.
RE	DISCPOLR	BLR4	1129	172.
RE	DISCPOLR	BLR4	1124.	174.
RE	DISCPOLR	BLR4	1121.	176.
RE	DISCPOLR	BLR4	1119.	178.
RE	DISCPOLR	BLR4	1118.	180.
RE	DISCPOLR	BLR4	1200.	180.
RE	DISCPOLR	BLR4	1500.	180.
RE	DISCPOLR	BLR4	1800.	180.
RE	DISCPOLR	BLR4	1119	182.
RE	DISCPOLR	BLR4	1121.	184.
RE	DISCPOLR	BLR4	1124.	186.
RE	DISCPOLR	BLR4	1129.	188.
RE	DISCPOLR	BLR4	1135.	190.
RE	DISCPOLR	BLR4	1200.	190.
RE	DISCPOLR	BLR4	1500.	190.
RE	DISCPOLR	BLR4	1800.	190.
RE	DISCPOLR	BLR4	1143	192.
RE	DISCPOLR	BLR4	1152.	194.
RE	DISCPOLR	BLR4	1163.	196.
RE	DISCPOLR	BLR4	1176.	198.
RE	DISCPOLR	BLR4	1178.	200.

BEST AVAILABLE COPY

RE	DISCPOLR	BLR4	1200.	200.
RE	DISCPOLR	BLR4	1500.	200.
RE	DISCPOLR	BLR4	1800.	200.
RE	DISCPOLR	BLR4	1076	202.
RE	DISCPOLR	BLR4	991.	204.
RE	DISCPOLR	BLR4	919.	206.
RE	DISCPOLR	BLR4	858.	208.
RE	DISCPOLR	BLR4	806.	210.
RE	DISCPOLR	BLR4	900.	210.
RE	DISCPOLR	BLR4	1200.	210.
RE	DISCPOLR	BLR4	1500.	210.
RE	DISCPOLR	BLR4	1800.	210.
RE	DISCPOLR	BLR4	760	212.
RE	DISCPOLR	BLR4	721.	214.
RE	DISCPOLR	BLR4	686.	216.
RE	DISCPOLR	BLR4	655.	218.
RE	DISCPOLR	BLR4	627.	220.
RE	DISCPOLR	BLR4	900.	220.
RE	DISCPOLR	BLR4	1200.	220.
RE	DISCPOLR	BLR4	1500.	220.
RE	DISCPOLR	BLR4	1800.	220.
RE	DISCPOLR	BLR4	602	222.
RE	DISCPOLR	BLR4	580.	224.
RE	DISCPOLR	BLR4	560.	226.
RE	DISCPOLR	BLR4	542.	228.
RE	DISCPOLR	BLR4	526.	230.
RE	DISCPOLR	BLR4	600.	230.
RE	DISCPOLR	BLR4	900.	230.
RE	DISCPOLR	BLR4	1200.	230.
RE	DISCPOLR	BLR4	1500.	230.
RE	DISCPOLR	BLR4	1800.	230.
RE	DISCPOLR	BLR4	465.	240.
RE	DISCPOLR	BLR4	600.	240.
RE	DISCPOLR	BLR4	900.	240.
RE	DISCPOLR	BLR4	1200.	240.
RE	DISCPOLR	BLR4	1500.	240.
RE	DISCPOLR	BLR4	1800.	240.
RE	DISCPOLR	BLR4	429.	250.
RE	DISCPOLR	BLR4	600.	250.
RE	DISCPOLR	BLR4	900.	250.
RE	DISCPOLR	BLR4	1200.	250.
RE	DISCPOLR	BLR4	1500.	250.
RE	DISCPOLR	BLR4	1800.	250.
RE	DISCPOLR	BLR4	409.	260.
RE	DISCPOLR	BLR4	600.	260.
RE	DISCPOLR	BLR4	900.	260.
RE	DISCPOLR	BLR4	1200.	260.
RE	DISCPOLR	BLR4	1500.	260.
RE	DISCPOLR	BLR4	1800.	260.
RE	DISCPOLR	BLR4	403.	270.
RE	DISCPOLR	BLR4	600.	270.
RE	DISCPOLR	BLR4	900.	270.
RE	DISCPOLR	BLR4	1200.	270.
RE	DISCPOLR	BLR4	1500.	270.
RE	DISCPOLR	BLR4	1800.	270.
RE	DISCPOLR	BLR4	409.	280.
RE	DISCPOLR	BLR4	600.	280.
RE	DISCPOLR	BLR4	900.	280.
RE	DISCPOLR	BLR4	1200.	280.
RE	DISCPOLR	BLR4	1500.	280.
RE	DISCPOLR	BLR4	1800.	280.
RE	DISCPOLR	BLR4	429.	290.
RE	DISCPOLR	BLR4	600.	290.
RE	DISCPOLR	BLR4	900.	290.
RE	DISCPOLR	BLR4	1200.	290.
RE	DISCPOLR	BLR4	1500.	290.
RE	DISCPOLR	BLR4	1800.	290.
RE	DISCPOLR	BLR4	465.	300.
RE	DISCPOLR	BLR4	600.	300.
RE	DISCPOLR	BLR4	900.	300.
RE	DISCPOLR	BLR4	1200.	300.
RE	DISCPOLR	BLR4	1500.	300.
RE	DISCPOLR	BLR4	1800.	300.
RE	DISCPOLR	BLR4	526.	310.
RE	DISCPOLR	BLR4	600.	310.
RE	DISCPOLR	BLR4	900.	310.
RE	DISCPOLR	BLR4	1200.	310.
RE	DISCPOLR	BLR4	1500.	310.
RE	DISCPOLR	BLR4	1800.	310.
RE	DISCPOLR	BLR4	542	312.
RE	DISCPOLR	BLR4	560.	314.
RE	DISCPOLR	BLR4	580.	316.
RE	DISCPOLR	BLR4	602.	318.
RE	DISCPOLR	BLR4	595.	320.

BEST AVAILABLE COPY

```
RE DISCPOLR  BLR4       600.        320.
RE DISCPOLR  BLR4       900.        320.
RE DISCPOLR  BLR4      1200.        320.
RE DISCPOLR  BLR4      1500.        320.
RE DISCPOLR  BLR4      1800.        320.
RE DISCPOLR  BLR4       579         322.
RE DISCPOLR  BLR4       564.        324.
RE DISCPOLR  BLR4       550.        326.
RE DISCPOLR  BLR4       538.        328.
RE DISCPOLR  BLR4       527.        330.
RE DISCPOLR  BLR4       600.        330.
RE DISCPOLR  BLR4       900.        330.
RE DISCPOLR  BLR4      1200.        330.
RE DISCPOLR  BLR4      1500.        330.
RE DISCPOLR  BLR4      1800.        330..
RE DISCPOLR  BLR4       485.        340.
RE DISCPOLR  BLR4       600.        340.
RE DISCPOLR  BLR4       900.        340.
RE DISCPOLR  BLR4      1200.        340.
RE DISCPOLR  BLR4      1500.        340.
RE DISCPOLR  BLR4      1800.        340.
RE DISCPOLR  BLR4       463.        350.
RE DISCPOLR  BLR4       600.        350.
RE DISCPOLR  BLR4       900.        350.
RE DISCPOLR  BLR4      1200.        350.
RE DISCPOLR  BLR4      1500.        350.
RE DISCPOLR  BLR4      1800.        350.
RE DISCPOLR  BLR4       456.        360.
RE DISCPOLR  BLR4       600.        360.
RE DISCPOLR  BLR4       900.        360.
RE DISCPOLR  BLR4      1200.        360.
RE DISCPOLR  BLR4      1500.        360.
RE DISCPOLR  BLR4      1800.        360.
RE FINISHED

ME STARTING
ME INPUTFIL C:\MET\PBIPBI87.MET
ME ANEMHGHT    33 FEET
ME SURFDATA  12844  1987       PALM_BEACH_INTER
ME UAIRDATA  12844  1987       PALM_BEACH_INTER
ME WINDCATS    1.54    3.09    5.14    8.23    10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
```

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :COR01.090
First title for last output file is: 1990 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- CO SIL 03/25/03
Second title for last output file is: BLR 8 100 & 80% LOAD 1-HOUR REFINED

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: 8080					
HIGH 1-Hour					
	1990	1038.88037	301.00	800.00	90070112
SOURCE GROUP ID: 8100					
HIGH 1-Hour					
	1990	1182.93164	301.00	800.00	90070112
SOURCE GROUP ID: 38080					
HIGH 1-Hour					
	1990	1038.88037	301.00	800.00	90070112
SOURCE GROUP ID: 38100					
HIGH 1-Hour					
	1990	1182.93164	301.00	800.00	90070112

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :COS01.087
PRIME OUTPUT FILE NUMBER 2 :COS01.088
PRIME OUTPUT FILE NUMBER 3 :COS01.089
PRIME OUTPUT FILE NUMBER 4 :COS01.090
PRIME OUTPUT FILE NUMBER 5 :COS01.091
First title for last output file is: 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- CO SIL 03/25/03
Second title for last output file is: BLR 8 100 & 80% LOAD 1-HOUR

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: 8080					
HIGH 1-Hour					
	1987	866.38080	360.00	600.00	87091812
	1988	907.83380	310.00	900.00	88072611
	1989	831.49927	260.00	1200.00	89081111
	1990	912.08167	320.00	900.00	90080511
	1991	912.66669	360.00	900.00	91073114
SOURCE GROUP ID: 8100					
HIGH 1-Hour					
	1987	1016.94342	320.00	900.00	87072711
	1988	1035.59827	310.00	900.00	88072611
	1989	1017.35321	260.00	1200.00	89081111
	1990	1064.14429	300.00	900.00	90070112
	1991	1013.20587	350.00	900.00	91061611
SOURCE GROUP ID: 38080					
HIGH 1-Hour					
	1987	866.38080	360.00	600.00	87091812
	1988	907.83380	310.00	900.00	88072611
	1989	831.49927	260.00	1200.00	89081111
	1990	912.08167	320.00	900.00	90080511
	1991	912.66669	360.00	900.00	91073114
SOURCE GROUP ID: 38100					
HIGH 1-Hour					
	1987	1016.94342	320.00	900.00	87072711
	1988	1035.59827	310.00	900.00	88072611
	1989	1017.35321	260.00	1200.00	89081111
	1990	1064.14429	300.00	900.00	90070112
	1991	1013.20587	350.00	900.00	91061611

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

```
CO STARTING
CO TITLEONE 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- CO  SIL  03/25/03
CO TITLETWO BLR 8 100 & 80% LOAD 1-HOUR
CO MODELOPT DFAULT CONC   RURAL NOCMPL
CO AVERTIME 1
 O POLLUTID CO
   DCAYCOEF    .000000
 O RUNORNOT RUN
CO FINISHED

SO STARTING
**
** BLR 4 ORIGIN FOR GRID INCLUDING DISCRETE RECP
**
** Source Location Cards:
**          SRCID    SRCTYP       XS      YS
**
SO LOCATION  BLR4     POINT       0.0     0.0
SO LOCATION  BLR8100  POINT     -82.0    51.0
SO LOCATION  BLR8080  POINT     -82.0    51.0
SO LOCATION  BLR3     POINT     28.96    5.49
**
** Source Parameter Cards:
** POINT:   SRCID        QS      HS     TS       VS       DS

SO SRCPARAM  BLR4        0.0    45.7  344.3    25.66     2.50
SO SRCPARAM  BLR8100  843.6    60.7    439     15.3     3.96
SO SRCPARAM  BLR8080  674.9    60.7    439     12.3     3.96
SO SRCPARAM  BLR3   -111.10    64.9    330     14.2     2.44

SO BUILDHGT BLR8080-BLR8100     29.87   21.03   21.03   21.03   21.03   21.03
SO BUILDHGT BLR8080-BLR8100     21.03   21.03   21.03   21.03   26.67   26.67
SO BUILDHGT BLR8080-BLR8100     26.67   26.67   29.87   29.87   25.30   25.30
SO BUILDHGT BLR8080-BLR8100     29.87   21.03   21.03   21.03   21.03   21.03
SO BUILDHGT BLR8080-BLR8100     21.03   21.03   21.03   21.03   26.67   26.67
SO BUILDHGT BLR8080-BLR8100     26.67   26.67   29.87   29.87   29.87   25.30
SO BUILDWID BLR8080-BLR8100     22.52   24.06   25.28   25.72   25.38   24.27
SO BUILDWID BLR8080-BLR8100     22.42   22.34   24.08   25.09   40.07   66.68
SO BUILDWID BLR8080-BLR8100     31.14   31.17   27.37   26.43   73.92   69.74
SO BUILDWID BLR8080-BLR8100     22.52   24.06   25.28   25.72   25.38   24.27
SO BUILDWID BLR8080-BLR8100     22.42   22.34   24.08   25.09   40.07   30.65
 O BUILDWID BLR8080-BLR8100     31.14   30.69   27.37   26.43   22.52   69.74
   BUILDLEN BLR8080-BLR8100     30.73   25.34   24.82   23.54   21.55   18.90
 O BUILDLEN BLR8080-BLR8100     15.68   16.30   19.51   22.12   61.75   92.90
SO BUILDLEN BLR8080-BLR8100     68.20   68.35   33.25   32.48   41.83   32.31
SO BUILDLEN BLR8080-BLR8100     30.73   25.34   24.82   23.54   21.55   18.90
SO BUILDLEN BLR8080-BLR8100     15.68   16.30   19.51   22.12   61.75   29.31
SO BUILDLEN BLR8080-BLR8100     30.69   31.14   33.25   32.48   30.73   32.31
SO XBADJ    BLR8080-BLR8100    -75.00  -29.25  -26.62  -23.18  -19.03  -14.31
SO XBADJ    BLR8080-BLR8100     -9.15   -5.88   -3.96   -1.93   51.96   26.44
SO XBADJ    BLR8080-BLR8100     53.15   51.32   33.25   46.48   48.25   46.42
SO XBADJ    BLR8080-BLR8100     44.27    3.91    1.80   -0.36   -2.51   -4.59
SO XBADJ    BLR8080-BLR8100     -6.53  -10.42  -15.54  -20.19 -113.71 -119.35
SO XBADJ    BLR8080-BLR8100   -121.35 -119.67   33.25  -78.96  -78.98  -78.73
SO YBADJ    BLR8080-BLR8100    -22.15  -12.20  -14.89  -17.13  -18.85  -20.00
SO YBADJ    BLR8080-BLR8100    -20.54  -20.46  -19.75  -18.45  -29.24  -31.74
SO YBADJ    BLR8080-BLR8100      1.69   19.84   33.25  -10.63   26.12   37.37
SO YBADJ    BLR8080-BLR8100     22.15   12.20   14.89   17.13   18.85   20.00
SO YBADJ    BLR8080-BLR8100     20.54   20.46   19.75   18.45   29.24   16.74
SO YBADJ    BLR8080-BLR8100     -1.69  -20.08   33.25   10.63   -0.42  -37.37

SO BUILDHGT BLR3        26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR3        26.67   26.67   26.67   26.67   26.67   21.03
SO BUILDHGT BLR3        20.73   20.73   20.73   20.50   20.50   20.50
SO BUILDHGT BLR3        26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR3        26.67   26.67   26.67   41.45   41.45   41.45
SO BUILDHGT BLR3        28.55   28.55   28.55   28.55   21.03   20.73
SO BUILDWID BLR3        55.65   27.03   29.31   30.69   31.14   30.65
SO BUILDWID BLR3        29.22   26.91   49.07   26.91   40.07   85.57
SO BUILDWID BLR3       105.13  109.15   55.67   43.68   39.97   35.05
SO BUILDWID BLR3        55.65   27.03   29.31   30.69   31.14   30.65
SO BUILDWID BLR3        29.22   26.91   49.07   46.59   56.20   64.10
SO BUILDWID BLR3        62.36   63.03   61.79   58.68   32.97   24.69
SO BUILDLEN BLR3        45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR3        27.03   23.94   47.85   23.94   61.75   93.35
SO BUILDLEN BLR3       111.89  108.40   71.74   41.49   37.00   31.39
SO BUILDLEN BLR3        45.26   29.22   30.65   31.14   30.69   29.31
 O BUILDLEN BLR3        27.03   23.94   47.85   75.14   72.66   67.98
   BUILDLEN BLR3        71.65   72.63   71.40   68.00   76.49   68.58
 O XBADJ    BLR3       -39.44  -44.46  -48.13  -50.33  -51.01  -50.14
SO XBADJ    BLR3       -47.74  -43.89  -66.45  -36.48  -67.86   39.30
SO XBADJ    BLR3        28.36   35.20   40.96    1.38    1.17    0.91
SO XBADJ    BLR3        -5.82   15.24   17.48   19.19   20.32   20.83
SO XBADJ    BLR3        20.70   19.95   18.59 -213.31 -211.14 -202.55
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SO XBADJ    BLR3     -140.25 -143.59 -142.57 -137.22 -124.00 -118.87
SO YBADJ    BLR3       40.37   19.63   14.14    8.23    2.07   -4.15
SO YBADJ    BLR3      -10.25  -16.04   -8.69  -25.99  -24.43  -50.41
SO YBADJ    BLR3      -41.83  -25.80  -36.09   12.22   15.88   19.05
SO YBADJ    BLR3      -40.37  -19.63  -14.14   -8.23   -2.07    4.15
SO YBADJ    BLR3       10.25   16.04    8.69   10.02  -20.65  -50.69
SO YBADJ    BLR3       20.44    2.75  -15.03  -32.35  -15.06   -7.16
**
SO EMISFACT BLR3   MONTH 1 1 1 0 0 0 0 0 0 0 1 1
**
SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
**
SO SRCGROUP 8080 BLR8080
SO SRCGROUP 8100 BLR8100
SO SRCGROUP 38080 BLR8080 BLR3
SO SRCGROUP 38100 BLR8100 BLR3
**
SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG   0.0   0.0
RE GRIDPOLR POL DIST  2000 3000 4000 5000 7000 10000 15000 20000 25000
RE GRIDPOLR POL GDIR   36  10.00  10.00
RE GRIDPOLR POL END
RE DISCPOLR  BLR4       463.        10.
RE DISCPOLR  BLR4       600.        10.
RE DISCPOLR  BLR4       900.        10.
RE DISCPOLR  BLR4      1200.        10.
RE DISCPOLR  BLR4      1500.        10.
RE DISCPOLR  BLR4      1800.        10.
RE DISCPOLR  BLR4       485.        20.
RE DISCPOLR  BLR4       600.        20.
RE DISCPOLR  BLR4       900.        20.
RE DISCPOLR  BLR4      1200.        20.
RE DISCPOLR  BLR4      1500.        20.
RE DISCPOLR  BLR4      1800.        20.
RE DISCPOLR  BLR4       527.        30.
RE DISCPOLR  BLR4       600.        30.
RE DISCPOLR  BLR4       900.        30.
RE DISCPOLR  BLR4      1200.        30.
RE DISCPOLR  BLR4      1500.        30.
RE DISCPOLR  BLR4      1800.        30.
RE DISCPOLR  BLR4       538.        32.
RE DISCPOLR  BLR4       550.        34.
RE DISCPOLR  BLR4       564.        36.
RE DISCPOLR  BLR4       579.        38.
RE DISCPOLR  BLR4       595.        40.
RE DISCPOLR  BLR4       600.        40.
RE DISCPOLR  BLR4       900.        40.
RE DISCPOLR  BLR4      1200.        40.
RE DISCPOLR  BLR4      1500.        40.
RE DISCPOLR  BLR4      1800.        40.
RE DISCPOLR  BLR4       614.        42.
RE DISCPOLR  BLR4       634.        44.
RE DISCPOLR  BLR4       656.        46.
RE DISCPOLR  BLR4       681.        48.
RE DISCPOLR  BLR4       709.        50.
RE DISCPOLR  BLR4       900.        50.
RE DISCPOLR  BLR4      1200.        50.
RE DISCPOLR  BLR4      1500.        50.
RE DISCPOLR  BLR4      1800.        50.
RE DISCPOLR  BLR4       741.        52.
RE DISCPOLR  BLR4       776.        54.
RE DISCPOLR  BLR4       815.        56.
RE DISCPOLR  BLR4       861.        58.
RE DISCPOLR  BLR4       912.        60.
RE DISCPOLR  BLR4      1200.        60.
RE DISCPOLR  BLR4      1500.        60.
RE DISCPOLR  BLR4      1800.        60.
RE DISCPOLR  BLR4       971.        62.
RE DISCPOLR  BLR4      1040.        64.
RE DISCPOLR  BLR4      1121.        66.
RE DISCPOLR  BLR4      1217.        68.
RE DISCPOLR  BLR4      1333.        70.
RE DISCPOLR  BLR4      1500.        70.
RE DISCPOLR  BLR4      1800.        70.
RE DISCPOLR  BLR4      1476.        72.
RE DISCPOLR  BLR4      1654.        74.
RE DISCPOLR  BLR4      1885.        76.
RE DISCPOLR  BLR4      2062.        78.
RE DISCPOLR  BLR4      2048.        80.
RE DISCPOLR  BLR4      2037.        82.
RE DISCPOLR  BLR4      2028.        84.
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RE	DISCPOLR	BLR4	2022.	86.
RE	DISCPOLR	BLR4	2018.	88.
RE	DISCPOLR	BLR4	2017.	90.
RE	DISCPOLR	BLR4	2018.	92.
RE	DISCPOLR	BLR4	2022.	94.
RE	DISCPOLR	BLR4	2028.	96.
RE	DISCPOLR	BLR4	2037.	98.
RE	DISCPOLR	BLR4	1785.	100.
RE	DISCPOLR	BLR4	1800.	100.
RE	DISCPOLR	BLR4	1491.	102.
RE	DISCPOLR	BLR4	1281.	104.
RE	DISCPOLR	BLR4	1125.	106.
RE	DISCPOLR	BLR4	1003.	108.
RE	DISCPOLR	BLR4	906.	110.
RE	DISCPOLR	BLR4	1200.	110.
RE	DISCPOLR	BLR4	1500.	110.
RE	DISCPOLR	BLR4	1800.	110.
RE	DISCPOLR	BLR4	828.	112.
RE	DISCPOLR	BLR4	762.	114.
RE	DISCPOLR	BLR4	707.	116.
RE	DISCPOLR	BLR4	663.	118.
RE	DISCPOLR	BLR4	675.	120.
RE	DISCPOLR	BLR4	900.	120.
RE	DISCPOLR	BLR4	1200.	120.
RE	DISCPOLR	BLR4	1500.	120.
RE	DISCPOLR	BLR4	1800.	120.
RE	DISCPOLR	BLR4	690.	122.
RE	DISCPOLR	BLR4	706.	124.
RE	DISCPOLR	BLR4	723.	126.
RE	DISCPOLR	BLR4	742.	128.
RE	DISCPOLR	BLR4	764.	130.
RE	DISCPOLR	BLR4	900.	130.
RE	DISCPOLR	BLR4	1200.	130.
RE	DISCPOLR	BLR4	1500.	130.
RE	DISCPOLR	BLR4	1800.	130.
RE	DISCPOLR	BLR4	787.	132.
RE	DISCPOLR	BLR4	813.	134.
RE	DISCPOLR	BLR4	842.	136.
RE	DISCPOLR	BLR4	874.	138.
RE	DISCPOLR	BLR4	910.	140.
RE	DISCPOLR	BLR4	1200.	140.
RE	DISCPOLR	BLR4	1500.	140.
RE	DISCPOLR	BLR4	1800.	140.
RE	DISCPOLR	BLR4	950.	142.
RE	DISCPOLR	BLR4	995.	144.
RE	DISCPOLR	BLR4	1046.	146.
RE	DISCPOLR	BLR4	1104.	148.
RE	DISCPOLR	BLR4	1170.	150.
RE	DISCPOLR	BLR4	1200.	150.
RE	DISCPOLR	BLR4	1500.	150.
RE	DISCPOLR	BLR4	1800.	150.
RE	DISCPOLR	BLR4	1246.	152.
RE	DISCPOLR	BLR4	1244.	154.
RE	DISCPOLR	BLR4	1224.	156.
RE	DISCPOLR	BLR4	1206.	158.
RE	DISCPOLR	BLR4	1190.	160.
RE	DISCPOLR	BLR4	1200.	160.
RE	DISCPOLR	BLR4	1500.	160.
RE	DISCPOLR	BLR4	1800.	160.
RE	DISCPOLR	BLR4	1176	162.
RE	DISCPOLR	BLR4	1163.	164.
RE	DISCPOLR	BLR4	1152.	166.
RE	DISCPOLR	BLR4	1143.	168.
RE	DISCPOLR	BLR4	1135.	170.
RE	DISCPOLR	BLR4	1200.	170.
RE	DISCPOLR	BLR4	1500.	170.
RE	DISCPOLR	BLR4	1800.	170.
RE	DISCPOLR	BLR4	1129	172.
RE	DISCPOLR	BLR4	1124.	174.
RE	DISCPOLR	BLR4	1121.	176.
RE	DISCPOLR	BLR4	1119.	178.
RE	DISCPOLR	BLR4	1118.	180.
RE	DISCPOLR	BLR4	1200.	180.
RE	DISCPOLR	BLR4	1500.	180.
RE	DISCPOLR	BLR4	1800.	180.
RE	DISCPOLR	BLR4	1119	182.
RE	DISCPOLR	BLR4	1121.	184.
RE	DISCPOLR	BLR4	1124.	186.
RE	DISCPOLR	BLR4	1129.	188.
RE	DISCPOLR	BLR4	1135.	190.
RE	DISCPOLR	BLR4	1200.	190.
RE	DISCPOLR	BLR4	1500.	190.
RE	DISCPOLR	BLR4	1800.	190.
RE	DISCPOLR	BLR4	1143	192.

RE	DISCPOLR	BLR4	1152.	194.
RE	DISCPOLR	BLR4	1163.	196.
RE	DISCPOLR	BLR4	1176.	198.
RE	DISCPOLR	BLR4	1178.	200.
RE	DISCPOLR	BLR4	1200.	200.
RE	DISCPOLR	BLR4	1500.	200.
RE	DISCPOLR	BLR4	1800.	200.
RE	DISCPOLR	BLR4	1076	202.
RE	DISCPOLR	BLR4	991.	204.
RE	DISCPOLR	BLR4	919.	206.
RE	DISCPOLR	BLR4	858.	208.
RE	DISCPOLR	BLR4	806.	210.
RE	DISCPOLR	BLR4	900.	210.
RE	DISCPOLR	BLR4	1200.	210.
RE	DISCPOLR	BLR4	1500.	210.
RE	DISCPOLR	BLR4	1800.	210.
RE	DISCPOLR	BLR4	760	212.
RE	DISCPOLR	BLR4	721.	214.
RE	DISCPOLR	BLR4	686.	216.
RE	DISCPOLR	BLR4	655.	218.
RE	DISCPOLR	BLR4	627.	220.
RE	DISCPOLR	BLR4	900.	220.
RE	DISCPOLR	BLR4	1200.	220.
RE	DISCPOLR	BLR4	1500.	220.
RE	DISCPOLR	BLR4	1800.	220.
RE	DISCPOLR	BLR4	602	222.
RE	DISCPOLR	BLR4	580.	224.
RE	DISCPOLR	BLR4	560.	226.
RE	DISCPOLR	BLR4	542.	228.
RE	DISCPOLR	BLR4	526.	230.
RE	DISCPOLR	BLR4	600.	230.
RE	DISCPOLR	BLR4	900.	230.
RE	DISCPOLR	BLR4	1200.	230.
RE	DISCPOLR	BLR4	1500.	230.
RE	DISCPOLR	BLR4	1800.	230.
RE	DISCPOLR	BLR4	465.	240.
RE	DISCPOLR	BLR4	600.	240.
RE	DISCPOLR	BLR4	900.	240.
RE	DISCPOLR	BLR4	1200.	240.
RE	DISCPOLR	BLR4	1500.	240.
RE	DISCPOLR	BLR4	1800.	240.
RE	DISCPOLR	BLR4	429.	250.
RE	DISCPOLR	BLR4	600.	250.
RE	DISCPOLR	BLR4	900.	250.
RE	DISCPOLR	BLR4	1200.	250.
RE	DISCPOLR	BLR4	1500.	250.
RE	DISCPOLR	BLR4	1800.	250.
RE	DISCPOLR	BLR4	409.	260.
RE	DISCPOLR	BLR4	600.	260.
RE	DISCPOLR	BLR4	900.	260.
RE	DISCPOLR	BLR4	1200.	260.
RE	DISCPOLR	BLR4	1500.	260.
RE	DISCPOLR	BLR4	1800.	260.
RE	DISCPOLR	BLR4	403.	270.
RE	DISCPOLR	BLR4	600.	270.
RE	DISCPOLR	BLR4	900.	270.
RE	DISCPOLR	BLR4	1200.	270.
RE	DISCPOLR	BLR4	1500.	270.
RE	DISCPOLR	BLR4	1800.	270.
RE	DISCPOLR	BLR4	409.	280.
RE	DISCPOLR	BLR4	600.	280.
RE	DISCPOLR	BLR4	900.	280.
RE	DISCPOLR	BLR4	1200.	280.
RE	DISCPOLR	BLR4	1500.	280.
RE	DISCPOLR	BLR4	1800.	280.
RE	DISCPOLR	BLR4	429.	290.
RE	DISCPOLR	BLR4	600.	290.
RE	DISCPOLR	BLR4	900.	290.
RE	DISCPOLR	BLR4	1200.	290.
RE	DISCPOLR	BLR4	1500.	290.
RE	DISCPOLR	BLR4	1800.	290.
RE	DISCPOLR	BLR4	465.	300.
RE	DISCPOLR	BLR4	600.	300.
RE	DISCPOLR	BLR4	900.	300.
RE	DISCPOLR	BLR4	1200.	300.
RE	DISCPOLR	BLR4	1500.	300.
RE	DISCPOLR	BLR4	1800.	300.
RE	DISCPOLR	BLR4	526.	310.
RE	DISCPOLR	BLR4	600.	310.
RE	DISCPOLR	BLR4	900.	310.
RE	DISCPOLR	BLR4	1200.	310.
RE	DISCPOLR	BLR4	1500.	310.
RE	DISCPOLR	BLR4	1800.	310.
RE	DISCPOLR	BLR4	542	312.

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RE DISCPOLR  BLR4        560.        314.
RE DISCPOLR  BLR4        580.        316.
RE DISCPOLR  BLR4        602.        318.
RE DISCPOLR  BLR4        595.        320.
RE DISCPOLR  BLR4        600.        320.
RE DISCPOLR  BLR4        900.        320.
RE DISCPOLR  BLR4       1200.        320.
RE DISCPOLR  BLR4       1500.        320.
RE DISCPOLR  BLR4       1800.        320.
RE DISCPOLR  BLR4        579         322.
RE DISCPOLR  BLR4        564.        324.
RE DISCPOLR  BLR4        550.        326.
RE DISCPOLR  BLR4        538.        328.
RE DISCPOLR  BLR4        527.        330.
RE DISCPOLR  BLR4        600.        330.
RE DISCPOLR  BLR4        900.        330.
RE DISCPOLR  BLR4       1200.        330.
RE DISCPOLR  BLR4       1500.        330.
RE DISCPOLR  BLR4       1800.        330.
RE DISCPOLR  BLR4        485.        340.
RE DISCPOLR  BLR4        600.        340.
RE DISCPOLR  BLR4        900.        340.
RE DISCPOLR  BLR4       1200.        340.
RE DISCPOLR  BLR4       1500.        340.
RE DISCPOLR  BLR4       1800.        340.
RE DISCPOLR  BLR4        463.        350.
RE DISCPOLR  BLR4        600.        350.
RE DISCPOLR  BLR4        900.        350.
RE DISCPOLR  BLR4       1200.        350.
RE DISCPOLR  BLR4       1500.        350.
RE DISCPOLR  BLR4       1800.        350.
RE DISCPOLR  BLR4        456.        360.
RE DISCPOLR  BLR4        600.        360.
RE DISCPOLR  BLR4        900.        360.
RE DISCPOLR  BLR4       1200.        360.
RE DISCPOLR  BLR4       1500.        360.
RE DISCPOLR  BLR4       1800.        360.
RE FINISHED

ME STARTING
ME INPUTFIL C:\MET\PBIPBI87.MET
ME ANEMHGHT    33 FEET
ME SURFDATA  12844  1987        PALM_BEACH_INTER
ME UAIRDATA  12844  1987        PALM_BEACH_INTER
ME WINDCATS    1.54     3.09     5.14     8.23    10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
```

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :COR08.O91

First title for last output file is: 1991 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- CO SIL 03/25/03

Second title for last output file is: BLR 8 100 & 80% LOAD 8-HOUR REFINED

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: 8080					
HIGH 8-Hour					
	1991	233.21346	308.00	1900.00	91072416
SOURCE GROUP ID: 8100					
HIGH 8-Hour					
	1991	245.28130	308.00	2100.00	91072416
SOURCE GROUP ID: 38080					
HIGH 8-Hour					
	1991	233.21346	308.00	1900.00	91072416
SOURCE GROUP ID: 38100					
HIGH 8-Hour					
	1991	245.28130	308.00	2100.00	91072416

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :COS08.087
PRIME OUTPUT FILE NUMBER 2 :COS08.088
PRIME OUTPUT FILE NUMBER 3 :COS08.089
PRIME OUTPUT FILE NUMBER 4 :COS08.090
PRIME OUTPUT FILE NUMBER 5 :COS08.091
First title for last output file is: 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- CO SIL 03/25/03
Second title for last output file is: BLR 8 100 & 80% LOAD 8-HOUR

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	8080				
HIGH 8-Hour					
	1987	195.67917	220.00	1500.00	87053016
	1988	188.48293	260.00	1800.00	88061816
	1989	190.04997	310.00	2000.00	89071516
	1990	171.13205	310.00	2000.00	90052816
	1991	225.31993	290.00	3000.00	91052124
SOURCE GROUP ID:	8100				
HIGH 8-Hour					
	1987	202.64052	220.00	1500.00	87053016
	1988	197.82191	260.00	2000.01	88061816
	1989	195.70650	310.00	2000.00	89071516
	1990	175.61086	310.00	2000.00	90052816
	1991	224.09053	310.00	2000.00	91072416
SOURCE GROUP ID:	38080				
HIGH 8-Hour					
	1987	195.67917	220.00	1500.00	87053016
	1988	188.48293	260.00	1800.00	88061816
	1989	190.04997	310.00	2000.00	89071516
	1990	171.13205	310.00	2000.00	90052816
	1991	225.31993	290.00	3000.00	91052124
SOURCE GROUP ID:	38100				
HIGH 8-Hour					
	1987	202.64052	220.00	1500.00	87053016
	1988	197.82191	260.00	2000.01	88061816
	1989	195.70650	310.00	2000.00	89071516
	1990	175.61086	310.00	2000.00	90052816
	1991	224.09053	310.00	2000.00	91072416

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

```
CO STARTING
CO TITLEONE 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- CO  SIL  03/25/03
CO TITLETWO BLR 8 100 & 80% LOAD 8-HOUR
CO MODELOPT DFAULT CONC    RURAL NOCMPL
CO AVERTIME 8
CO POLLUTID CO
CO DCAYCOEF     .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING
**
** BLR 4 ORIGIN FOR GRID INCLUDING DISCRETE RECP
**
** Source Location Cards:
**          SRCID    SRCTYP      XS     YS
**
SO LOCATION BLR4     POINT       0.0    0.0
SO LOCATION BLR8100  POINT     -82.0   51.0
SO LOCATION BLR8080  POINT     -82.0   51.0
SO LOCATION BLR3     POINT     28.96   5.49
**
** Source Parameter Cards:
** POINT:   SRCID        QS      HS     TS       VS       DS

SO SRCPARAM  BLR4         0.0    45.7  344.3    25.66     2.50
SO SRCPARAM  BLR8100  584.0    60.7    439      15.3     3.96
SO SRCPARAM  BLR8080  467.21   60.7    439      12.3     3.96
SO SRCPARAM  BLR3    -111.10   64.9    330      14.2     2.44

SO BUILDHGT BLR8080-BLR8100       29.87    21.03    21.03    21.03    21.03    21.03
SO BUILDHGT BLR8080-BLR8100       21.03    21.03    21.03    21.03    26.67    26.67
SO BUILDHGT BLR8080-BLR8100       26.67    26.67    29.87    29.87    25.30    25.30
SO BUILDHGT BLR8080-BLR8100       29.87    21.03    21.03    21.03    21.03    21.03
SO BUILDHGT BLR8080-BLR8100       21.03    21.03    21.03    21.03    26.67    26.67
SO BUILDHGT BLR8080-BLR8100       26.67    26.67    29.87    29.87    29.87    25.30
SO BUILDWID BLR8080-BLR8100       22.52    24.06    25.28    25.72    25.38    24.27
SO BUILDWID BLR8080-BLR8100       22.42    22.34    24.08    25.09    40.07    66.68
SO BUILDWID BLR8080-BLR8100       31.14    31.17    27.37    26.43    73.92    69.74
SO BUILDWID BLR8080-BLR8100       22.52    24.06    25.28    25.72    25.38    24.27
SO BUILDWID BLR8080-BLR8100       22.42    22.34    24.08    25.09    40.07    30.65
SO BUILDWID BLR8080-BLR8100       31.14    30.69    27.37    26.43    22.52    69.74
SO BUILDLEN BLR8080-BLR8100       30.73    25.34    24.82    23.54    21.55    18.90
SO BUILDLEN BLR8080-BLR8100       15.68    16.30    19.51    22.12    61.75    92.90
SO BUILDLEN BLR8080-BLR8100       68.20    68.35    33.25    32.48    41.83    32.31
SO BUILDLEN BLR8080-BLR8100       30.73    25.34    24.82    23.54    21.55    18.90
SO BUILDLEN BLR8080-BLR8100       15.68    16.30    19.51    22.12    61.75    29.31
SO BUILDLEN BLR8080-BLR8100       30.69    31.14    33.25    32.48    30.73    32.31
SO XBADJ    BLR8080-BLR8100      -75.00   -29.25   -26.62   -23.18   -19.03   -14.31
SO XBADJ    BLR8080-BLR8100       -9.15    -5.88    -3.96    -1.93    51.96    26.44
SO XBADJ    BLR8080-BLR8100       53.15    51.32    33.25    46.48    48.25    46.42
SO XBADJ    BLR8080-BLR8100       44.27     3.91     1.80    -0.36    -2.51    -4.59
SO XBADJ    BLR8080-BLR8100       -6.53   -10.42   -15.54   -20.19  -113.71  -119.35
SO XBADJ    BLR8080-BLR8100     -121.35  -119.67    33.25   -78.96   -78.98   -78.73
SO YBADJ    BLR8080-BLR8100      -22.15   -12.20   -14.89   -17.13   -18.85   -20.00
SO YBADJ    BLR8080-BLR8100      -20.54   -20.46   -19.75   -18.45   -29.24   -31.74
SO YBADJ    BLR8080-BLR8100        1.69    19.84    33.25   -10.63    26.12    37.37
SO YBADJ    BLR8080-BLR8100       22.15    12.20    14.89    17.13    18.85    20.00
SO YBADJ    BLR8080-BLR8100       20.54    20.46    19.75    18.45    29.24    16.74
SO YBADJ    BLR8080-BLR8100       -1.69   -20.08    33.25    10.63    -0.42   -37.37

SO BUILDHGT BLR3          26.67    26.67    26.67    26.67    26.67    26.67
SO BUILDHGT BLR3          26.67    26.67    26.67    26.67    26.67    21.03
SO BUILDHGT BLR3          20.73    20.73    20.73    20.50    20.50    20.50
SO BUILDHGT BLR3          26.67    26.67    26.67    26.67    26.67    26.67
SO BUILDHGT BLR3          26.67    26.67    26.67    41.45    41.45    41.45
SO BUILDHGT BLR3          28.55    28.55    28.55    28.55    21.03    20.73
SO BUILDWID BLR3          55.65    27.03    29.31    30.69    31.14    30.65
SO BUILDWID BLR3          29.22    26.91    49.07    26.91    40.07    85.57
SO BUILDWID BLR3         105.13   109.15    55.67    43.68    39.97    35.05
SO BUILDWID BLR3          55.65    27.03    29.31    30.69    31.14    30.65
SO BUILDWID BLR3          29.22    26.91    49.07    46.59    56.20    64.10
SO BUILDWID BLR3          62.36    63.03    61.79    58.68    32.97    24.69
SO BUILDLEN BLR3          45.26    29.22    30.65    31.14    30.69    29.31
SO BUILDLEN BLR3          27.03    23.94    47.85    23.94    61.75    93.35
SO BUILDLEN BLR3         111.89   108.40    71.74    41.49    37.00    31.39
SO BUILDLEN BLR3          45.26    29.22    30.65    31.14    30.69    29.31
SO BUILDLEN BLR3          27.03    23.94    47.85    75.14    72.66    67.98
SO BUILDLEN BLR3          71.65    72.63    71.40    68.00    76.49    68.58
SO XBADJ    BLR3         -39.44   -44.46   -48.13   -50.33   -51.01   -50.14
SO XBADJ    BLR3         -47.74   -43.89   -66.45   -36.48   -67.86    39.30
SO XBADJ    BLR3          28.36    35.20    40.96     1.38     1.17     0.91
SO XBADJ    BLR3          -5.82    15.24    17.48    19.19    20.32    20.83
SO XBADJ    BLR3          20.70    19.95    18.59  -213.31  -211.14  -202.55
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SO XBADJ     BLR3      -140.25 -143.59 -142.57 -137.22 -124.00 -118.87
SO YBADJ     BLR3        40.37   19.63   14.14    8.23    2.07   -4.15
SO YBADJ     BLR3       -10.25  -16.04   -8.69  -25.99  -24.43  -50.41
SO YBADJ     BLR3       -41.83  -25.80  -36.09   12.22   15.88   19.05
SO YBADJ     BLR3       -40.37  -19.63  -14.14   -8.23   -2.07    4.15
SO YBADJ     BLR3        10.25   16.04    8.69   10.02  -20.65  -50.69
SO YBADJ     BLR3        20.44    2.75  -15.03  -32.35  -15.06   -7.16
**
SO EMISFACT BLR3   MONTH 1 1 1 0 0 0 0 0 0 0 1 1
**
SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
**
SO SRCGROUP 8080 BLR8080
SO SRCGROUP 8100 BLR8100
SO SRCGROUP 38080 BLR8080 BLR3
SO SRCGROUP 38100 BLR8100 BLR3
**
SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG   0.0    0.0
RE GRIDPOLR POL DIST  2000 3000 4000 5000 7000 10000 15000 20000 25000
RE GRIDPOLR POL GDIR   36  10.00  10.00
RE GRIDPOLR POL END
RE DISCPOLR  BLR4       463.         10.
RE DISCPOLR  BLR4       600.         10.
RE DISCPOLR  BLR4       900.         10.
RE DISCPOLR  BLR4      1200.         10.
RE DISCPOLR  BLR4      1500.         10.
RE DISCPOLR  BLR4      1800.         10.
RE DISCPOLR  BLR4       485.         20.
RE DISCPOLR  BLR4       600.         20.
RE DISCPOLR  BLR4       900.         20.
RE DISCPOLR  BLR4      1200.         20.
RE DISCPOLR  BLR4      1500.         20.
RE DISCPOLR  BLR4      1800.         20.
RE DISCPOLR  BLR4       527.         30.
RE DISCPOLR  BLR4       600.         30.
RE DISCPOLR  BLR4       900.         30.
RE DISCPOLR  BLR4      1200.         30.
RE DISCPOLR  BLR4      1500.         30.
RE DISCPOLR  BLR4      1800.         30.
RE DISCPOLR  BLR4       538.         32.
RE DISCPOLR  BLR4       550.         34.
RE DISCPOLR  BLR4       564.         36.
RE DISCPOLR  BLR4       579.         38.
RE DISCPOLR  BLR4       595.         40.
RE DISCPOLR  BLR4       600.         40.
RE DISCPOLR  BLR4       900.         40.
RE DISCPOLR  BLR4      1200.         40.
RE DISCPOLR  BLR4      1500.         40.
RE DISCPOLR  BLR4      1800.         40.
RE DISCPOLR  BLR4       614.         42.
RE DISCPOLR  BLR4       634.         44.
RE DISCPOLR  BLR4       656.         46.
RE DISCPOLR  BLR4       681.         48.
RE DISCPOLR  BLR4       709.         50.
RE DISCPOLR  BLR4       900.         50.
RE DISCPOLR  BLR4      1200.         50.
RE DISCPOLR  BLR4      1500.         50.
RE DISCPOLR  BLR4      1800.         50.
RE DISCPOLR  BLR4       741.         52.
RE DISCPOLR  BLR4       776.         54.
RE DISCPOLR  BLR4       815.         56.
RE DISCPOLR  BLR4       861.         58.
RE DISCPOLR  BLR4       912.         60.
RE DISCPOLR  BLR4      1200.         60.
RE DISCPOLR  BLR4      1500.         60.
RE DISCPOLR  BLR4      1800.         60.
RE DISCPOLR  BLR4       971.         62.
RE DISCPOLR  BLR4      1040.         64.
RE DISCPOLR  BLR4      1121.         66.
RE DISCPOLR  BLR4      1217.         68.
RE DISCPOLR  BLR4      1333.         70.
RE DISCPOLR  BLR4      1500.         70.
RE DISCPOLR  BLR4      1800.         70.
RE DISCPOLR  BLR4      1476.         72.
RE DISCPOLR  BLR4      1654.         74.
RE DISCPOLR  BLR4      1885.         76.
RE DISCPOLR  BLR4      2062.         78.
RE DISCPOLR  BLR4      2048.         80.
RE DISCPOLR  BLR4      2037.         82.
RE DISCPOLR  BLR4      2028.         84.
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RE	DISCPOLR	BLR4	2022.	86.
RE	DISCPOLR	BLR4	2018.	88.
RE	DISCPOLR	BLR4	2017.	90.
RE	DISCPOLR	BLR4	2018.	92.
RE	DISCPOLR	BLR4	2022.	94.
RE	DISCPOLR	BLR4	2028.	96.
RE	DISCPOLR	BLR4	2037.	98.
RE	DISCPOLR	BLR4	1785.	100.
RE	DISCPOLR	BLR4	1800.	100.
RE	DISCPOLR	BLR4	1491.	102.
RE	DISCPOLR	BLR4	1281.	104.
RE	DISCPOLR	BLR4	1125.	106.
RE	DISCPOLR	BLR4	1003.	108.
RE	DISCPOLR	BLR4	906.	110.
RE	DISCPOLR	BLR4	1200.	110.
RE	DISCPOLR	BLR4	1500.	110.
RE	DISCPOLR	BLR4	1800.	110.
RE	DISCPOLR	BLR4	828.	112.
RE	DISCPOLR	BLR4	762.	114.
RE	DISCPOLR	BLR4	707.	116.
RE	DISCPOLR	BLR4	663.	118.
RE	DISCPOLR	BLR4	675.	120.
RE	DISCPOLR	BLR4	900.	120.
RE	DISCPOLR	BLR4	1200.	120.
RE	DISCPOLR	BLR4	1500.	120.
RE	DISCPOLR	BLR4	1800.	120.
RE	DISCPOLR	BLR4	690.	122.
RE	DISCPOLR	BLR4	706.	124.
RE	DISCPOLR	BLR4	723.	126.
RE	DISCPOLR	BLR4	742.	128.
RE	DISCPOLR	BLR4	764.	130.
RE	DISCPOLR	BLR4	900.	130.
RE	DISCPOLR	BLR4	1200.	130.
RE	DISCPOLR	BLR4	1500.	130.
RE	DISCPOLR	BLR4	1800.	130.
RE	DISCPOLR	BLR4	787.	132.
RE	DISCPOLR	BLR4	813.	134.
RE	DISCPOLR	BLR4	842.	136.
RE	DISCPOLR	BLR4	874.	138.
RE	DISCPOLR	BLR4	910.	140.
RE	DISCPOLR	BLR4	1200.	140.
RE	DISCPOLR	BLR4	1500.	140.
RE	DISCPOLR	BLR4	1800.	140.
RE	DISCPOLR	BLR4	950.	142.
RE	DISCPOLR	BLR4	995.	144.
RE	DISCPOLR	BLR4	1046.	146.
RE	DISCPOLR	BLR4	1104.	148.
RE	DISCPOLR	BLR4	1170.	150.
RE	DISCPOLR	BLR4	1200.	150.
RE	DISCPOLR	BLR4	1500.	150.
RE	DISCPOLR	BLR4	1800.	150.
RE	DISCPOLR	BLR4	1246.	152.
RE	DISCPOLR	BLR4	1244.	154.
RE	DISCPOLR	BLR4	1224.	156.
RE	DISCPOLR	BLR4	1206.	158.
RE	DISCPOLR	BLR4	1190.	160.
RE	DISCPOLR	BLR4	1200.	160.
RE	DISCPOLR	BLR4	1500.	160.
RE	DISCPOLR	BLR4	1800.	160.
RE	DISCPOLR	BLR4	1176	162.
RE	DISCPOLR	BLR4	1163.	164.
RE	DISCPOLR	BLR4	1152.	166.
RE	DISCPOLR	BLR4	1143.	168.
RE	DISCPOLR	BLR4	1135.	170.
RE	DISCPOLR	BLR4	1200.	170.
RE	DISCPOLR	BLR4	1500.	170.
RE	DISCPOLR	BLR4	1800.	170.
RE	DISCPOLR	BLR4	1129	172.
RE	DISCPOLR	BLR4	1124.	174.
RE	DISCPOLR	BLR4	1121.	176.
RE	DISCPOLR	BLR4	1119.	178.
RE	DISCPOLR	BLR4	1118.	180.
RE	DISCPOLR	BLR4	1200.	180.
RE	DISCPOLR	BLR4	1500.	180.
RE	DISCPOLR	BLR4	1800.	180.
RE	DISCPOLR	BLR4	1119	182.
RE	DISCPOLR	BLR4	1121.	184.
RE	DISCPOLR	BLR4	1124.	186.
RE	DISCPOLR	BLR4	1129.	188.
RE	DISCPOLR	BLR4	1135.	190.
RE	DISCPOLR	BLR4	1200.	190.
RE	DISCPOLR	BLR4	1500.	190.
RE	DISCPOLR	BLR4	1800.	190.
RE	DISCPOLR	BLR4	1143	192.

BEST AVAILABLE COPY

RE	DISCPOLR	BLR4	1152.	194.
RE	DISCPOLR	BLR4	1163.	196.
RE	DISCPOLR	BLR4	1176.	198.
RE	DISCPOLR	BLR4	1178.	200.
RE	DISCPOLR	BLR4	1200.	200.
RE	DISCPOLR	BLR4	1500.	200.
RE	DISCPOLR	BLR4	1800.	200.
RE	DISCPOLR	BLR4	1076	202.
RE	DISCPOLR	BLR4	991.	204.
RE	DISCPOLR	BLR4	919.	206.
RE	DISCPOLR	BLR4	858.	208.
RE	DISCPOLR	BLR4	806.	210.
RE	DISCPOLR	BLR4	900.	210.
RE	DISCPOLR	BLR4	1200.	210.
RE	DISCPOLR	BLR4	1500.	210.
RE	DISCPOLR	BLR4	1800.	210.
RE	DISCPOLR	BLR4	760	212.
RE	DISCPOLR	BLR4	721.	214.
RE	DISCPOLR	BLR4	686.	216.
RE	DISCPOLR	BLR4	655.	218.
RE	DISCPOLR	BLR4	627.	220.
RE	DISCPOLR	BLR4	900.	220.
RE	DISCPOLR	BLR4	1200.	220.
RE	DISCPOLR	BLR4	1500.	220.
RE	DISCPOLR	BLR4	1800.	220.
RE	DISCPOLR	BLR4	602	222.
RE	DISCPOLR	BLR4	580.	224.
RE	DISCPOLR	BLR4	560.	226.
RE	DISCPOLR	BLR4	542.	228.
RE	DISCPOLR	BLR4	526.	230.
RE	DISCPOLR	BLR4	600.	230.
RE	DISCPOLR	BLR4	900.	230.
RE	DISCPOLR	BLR4	1200.	230.
RE	DISCPOLR	BLR4	1500.	230.
RE	DISCPOLR	BLR4	1800.	230.
RE	DISCPOLR	BLR4	465.	240.
RE	DISCPOLR	BLR4	600.	240.
RE	DISCPOLR	BLR4	900.	240.
RE	DISCPOLR	BLR4	1200.	240.
RE	DISCPOLR	BLR4	1500.	240.
RE	DISCPOLR	BLR4	1800.	240.
RE	DISCPOLR	BLR4	429.	250.
RE	DISCPOLR	BLR4	600.	250.
RE	DISCPOLR	BLR4	900.	250.
RE	DISCPOLR	BLR4	1200.	250.
RE	DISCPOLR	BLR4	1500.	250.
RE	DISCPOLR	BLR4	1800.	250.
RE	DISCPOLR	BLR4	409.	260.
RE	DISCPOLR	BLR4	600.	260.
RE	DISCPOLR	BLR4	900.	260.
RE	DISCPOLR	BLR4	1200.	260.
RE	DISCPOLR	BLR4	1500.	260.
RE	DISCPOLR	BLR4	1800.	260.
RE	DISCPOLR	BLR4	403.	270.
RE	DISCPOLR	BLR4	600.	270.
RE	DISCPOLR	BLR4	900.	270.
RE	DISCPOLR	BLR4	1200.	270.
RE	DISCPOLR	BLR4	1500.	270.
RE	DISCPOLR	BLR4	1800.	270.
RE	DISCPOLR	BLR4	409.	280.
RE	DISCPOLR	BLR4	600.	280.
RE	DISCPOLR	BLR4	900.	280.
RE	DISCPOLR	BLR4	1200.	280.
RE	DISCPOLR	BLR4	1500.	280.
RE	DISCPOLR	BLR4	1800.	280.
RE	DISCPOLR	BLR4	429.	290.
RE	DISCPOLR	BLR4	600.	290.
RE	DISCPOLR	BLR4	900.	290.
RE	DISCPOLR	BLR4	1200.	290.
RE	DISCPOLR	BLR4	1500.	290.
RE	DISCPOLR	BLR4	1800.	290.
RE	DISCPOLR	BLR4	465.	300.
RE	DISCPOLR	BLR4	600.	300.
RE	DISCPOLR	BLR4	900.	300.
RE	DISCPOLR	BLR4	1200.	300.
RE	DISCPOLR	BLR4	1500.	300.
RE	DISCPOLR	BLR4	1800.	300.
RE	DISCPOLR	BLR4	526.	310.
RE	DISCPOLR	BLR4	600.	310.
RE	DISCPOLR	BLR4	900.	310.
RE	DISCPOLR	BLR4	1200.	310.
RE	DISCPOLR	BLR4	1500.	310.
RE	DISCPOLR	BLR4	1800.	310.
RE	DISCPOLR	BLR4	542	312.

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RE DISCPOLR  BLR4        560.        314.
RE DISCPOLR  BLR4        580.        316.
RE DISCPOLR  BLR4        602.        318.
RE DISCPOLR  BLR4        595.        320.
RE DISCPOLR  BLR4        600.        320.
RE DISCPOLR  BLR4        900.        320.
RE DISCPOLR  BLR4       1200.        320.
RE DISCPOLR  BLR4       1500.        320.
RE DISCPOLR  BLR4       1800.        320.
RE DISCPOLR  BLR4        579         322.
RE DISCPOLR  BLR4        564.        324.
RE DISCPOLR  BLR4        550.        326.
RE DISCPOLR  BLR4        538.        328.
RE DISCPOLR  BLR4        527.        330.
RE DISCPOLR  BLR4        600.        330.
RE DISCPOLR  BLR4        900.        330.
RE DISCPOLR  BLR4       1200.        330.
RE DISCPOLR  BLR4       1500.        330.
RE DISCPOLR  BLR4       1800.        330.
RE DISCPOLR  BLR4        485.        340.
RE DISCPOLR  BLR4        600.        340.
RE DISCPOLR  BLR4        900.        340.
RE DISCPOLR  BLR4       1200.        340.
RE DISCPOLR  BLR4       1500.        340.
RE DISCPOLR  BLR4       1800.        340.
RE DISCPOLR  BLR4        463.        350.
RE DISCPOLR  BLR4        600.        350.
RE DISCPOLR  BLR4        900.        350.
RE DISCPOLR  BLR4       1200.        350.
RE DISCPOLR  BLR4       1500.        350.
RE DISCPOLR  BLR4       1800.        350.
RE DISCPOLR  BLR4        456.        360.
RE DISCPOLR  BLR4        600.        360.
RE DISCPOLR  BLR4        900.        360.
RE DISCPOLR  BLR4       1200.        360.
RE DISCPOLR  BLR4       1500.        360.
RE DISCPOLR  BLR4       1800.        360.
RE FINISHED

ME STARTING
ME INPUTFIL C:\MET\PBIPBI87.MET
ME ANEMHGHT    33 FEET
ME SURFDATA  12844  1987         PALM_BEACH_INTER
ME UAIRDATA  12844  1987         PALM_BEACH_INTER
ME WINDCATS    1.54    3.09     5.14     8.23    10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
```

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :NO2RANF.090
First title for last output file is: 1990 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- NO2 SIL 03/25/03 REFINED
Second title for last output file is: BLR 8 EXIT GAS COND@80% LOAD; HS= 199 FT ANNUAL/ 90% BAGASSE/10%OIL

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	8100				
Annual					
	1990	0.53479	300.00	3600.00	90123124
SOURCE GROUP ID:	38100				
Annual					
	1990	0.50249	300.00	3800.00	90123124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :NO2SANF.087
PRIME OUTPUT FILE NUMBER 2 :NO2SANF.088
PRIME OUTPUT FILE NUMBER 3 :NO2SANF.089
PRIME OUTPUT FILE NUMBER 4 :NO2SANF.090
PRIME OUTPUT FILE NUMBER 5 :NO2SANF.091
First title for last output file is: 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- NO2 SIL 03/25/03
Second title for last output file is: BLR 8 EXIT GAS COND@80% LOAD; HS= 199 FT ANNUAL/ 90% BAGASSE/10%OIL

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	8100				
Annual					
	1987	0.44368	300.00	4000.00	87123124
	1988	0.42187	270.00	3000.00	88123124
	1989	0.46228	300.00	3000.00	89123124
	1990	0.53150	300.00	4000.00	90123124
	1991	0.50588	300.00	3000.00	91123124
SOURCE GROUP ID:	38100				
Annual					
	1987	0.42627	300.00	4000.00	87123124
	1988	0.38353	270.00	3000.00	88123124
	1989	0.43616	300.00	4000.00	89123124
	1990	0.50157	300.00	4000.00	90123124
	1991	0.48041	300.00	3000.00	91123124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

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CO STARTING
CO TITLEONE 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- NO2 SIL  03/25/03
CO TITLETWO BLR 8 EXIT GAS COND@80% LOAD; HS= 199 FT ANNUAL/ 90% BAGASSE/10%OIL
CO MODELOPT DFAULT CONC   RURAL NOCMPL
CO AVERTIME PERIOD
CO POLLUTID NO2
CO DCAYCOEF    .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING
**
** BLR 4 ORIGIN FOR GRID INCLUDING DISCRETE RECP
**
** Source Location Cards:
**          SRCID    SRCTYP       XS      YS
**
SO LOCATION  BLR4     POINT       0.0     0.0
SO LOCATION  BLR8100B POINT     -82.0    51.0
SO LOCATION  BLR8100F POINT     -82.0    51.0
SO LOCATION  BLR3     POINT     28.96    5.49
**
** Source Parameter Cards:
** POINT:   SRCID        QS      HS      TS       VS      DS

SO SRCPARAM  BLR4       0.0    45.7   344.3    25.66    2.50
SO SRCPARAM  BLR8100B  18.8    60.7    439      12.3    3.96
SO SRCPARAM  BLR8100F  2.59    60.7    439      5.31    3.96
SO SRCPARAM  BLR3     -1.37    64.9    330      14.2    2.44

SO BUILDHGT BLR8100B      29.87    21.03    21.03    21.03    21.03    21.03
SO BUILDHGT BLR8100B      21.03    21.03    21.03    21.03    26.67    26.67
SO BUILDHGT BLR8100B      26.67    26.67    29.87    29.87    25.30    25.30
SO BUILDHGT BLR8100B      29.87    21.03    21.03    21.03    21.03    21.03
SO BUILDHGT BLR8100B      21.03    21.03    21.03    21.03    26.67    26.67
SO BUILDHGT BLR8100B      26.67    26.67    29.87    29.87    29.87    25.30
SO BUILDWID BLR8100B      22.52    24.06    25.28    25.72    25.38    24.27
SO BUILDWID BLR8100B      22.42    22.34    24.08    25.09    40.07    66.68
SO BUILDWID BLR8100B      31.14    31.17    27.37    26.43    73.92    69.74
SO BUILDWID BLR8100B      22.52    24.06    25.28    25.72    25.38    24.27
SO BUILDWID BLR8100B      22.42    22.34    24.08    25.09    40.07    30.65
SO BUILDWID BLR8100B      31.14    30.69    27.37    26.43    22.52    69.74
SO BUILDLEN BLR8100B      30.73    25.34    24.82    23.54    21.55    18.90
SO BUILDLEN BLR8100B      15.68    16.30    19.51    22.12    61.75    92.90
SO BUILDLEN BLR8100B      68.20    68.35    33.25    32.48    41.83    32.31
SO BUILDLEN BLR8100B      30.73    25.34    24.82    23.54    21.55    18.90
SO BUILDLEN BLR8100B      15.68    16.30    19.51    22.12    61.75    29.31
SO BUILDLEN BLR8100B      30.69    31.14    33.25    32.48    30.73    32.31
SO XBADJ    BLR8100B     -75.00   -29.25   -26.62   -23.18   -19.03   -14.31
SO XBADJ    BLR8100B      -9.15    -5.88    -3.96    -1.93    51.96    26.44
SO XBADJ    BLR8100B      53.15    51.32    33.25    46.48    48.25    46.42
SO XBADJ    BLR8100B      44.27     3.91     1.80    -0.36    -2.51    -4.59
SO XBADJ    BLR8100B      -6.53   -10.42   -15.54   -20.19  -113.71  -119.35
SO XBADJ    BLR8100B    -121.35  -119.67    33.25   -78.96   -78.98   -78.73
SO YBADJ    BLR8100B     -22.15   -12.20   -14.89   -17.13   -18.85   -20.00
SO YBADJ    BLR8100B     -20.54   -20.46   -19.75   -18.45   -29.24   -31.74
SO YBADJ    BLR8100B       1.69    19.84    33.25   -10.63    26.12    37.37
SO YBADJ    BLR8100B      22.15    12.20    14.89    17.13    18.85    20.00
SO YBADJ    BLR8100B      20.54    20.46    19.75    18.45    29.24    16.74
SO YBADJ    BLR8100B      -1.69   -20.08    33.25    10.63    -0.42   -37.37

SO BUILDHGT BLR8100F      29.87    21.03    21.03    21.03    21.03    21.03
SO BUILDHGT BLR8100F      21.03    21.03    21.03    21.03    26.67    26.67
SO BUILDHGT BLR8100F      26.67    26.67    29.87    29.87    25.30    25.30
SO BUILDHGT BLR8100F      29.87    21.03    21.03    21.03    21.03    21.03
SO BUILDHGT BLR8100F      21.03    21.03    21.03    21.03    26.67    26.67
SO BUILDHGT BLR8100F      26.67    26.67    29.87    29.87    29.87    25.30
SO BUILDWID BLR8100F      22.52    24.06    25.28    25.72    25.38    24.27
SO BUILDWID BLR8100F      22.42    22.34    24.08    25.09    40.07    66.68
SO BUILDWID BLR8100F      31.14    31.17    27.37    26.43    73.92    69.74
SO BUILDWID BLR8100F      22.52    24.06    25.28    25.72    25.38    24.27
SO BUILDWID BLR8100F      22.42    22.34    24.08    25.09    40.07    30.65
SO BUILDWID BLR8100F      31.14    30.69    27.37    26.43    22.52    69.74
SO BUILDLEN BLR8100F      30.73    25.34    24.82    23.54    21.55    18.90
SO BUILDLEN BLR8100F      15.68    16.30    19.51    22.12    61.75    92.90
SO BUILDLEN BLR8100F      68.20    68.35    33.25    32.48    41.83    32.31
SO BUILDLEN BLR8100F      30.73    25.34    24.82    23.54    21.55    18.90
SO BUILDLEN BLR8100F      15.68    16.30    19.51    22.12    61.75    29.31
SO BUILDLEN BLR8100F      30.69    31.14    33.25    32.48    30.73    32.31
SO XBADJ    BLR8100F     -75.00   -29.25   -26.62   -23.18   -19.03   -14.31
SO XBADJ    BLR8100F      -9.15    -5.88    -3.96    -1.93    51.96    26.44
SO XBADJ    BLR8100F      53.15    51.32    33.25    46.48    48.25    46.42
SO XBADJ    BLR8100F      44.27     3.91     1.80    -0.36    -2.51    -4.59
SO XBADJ    BLR8100F      -6.53   -10.42   -15.54   -20.19  -113.71  -119.35
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SO XBADJ    BLR8100F     -121.35 -119.67   33.25  -78.96  -78.98  -78.73
SO YBADJ    BLR8100F      -22.15  -12.20  -14.89  -17.13  -18.85  -20.00
SO YBADJ    BLR8100F      -20.54  -20.46  -19.75  -18.45  -29.24  -31.74
SO YBADJ    BLR8100F        1.69   19.84   33.25  -10.63   26.12   37.37
SO YBADJ    BLR8100F       22.15   12.20   14.89   17.13   18.85   20.00
SO YBADJ    BLR8100F       20.54   20.46   19.75   18.45   29.24   16.74
SO YBADJ    BLR8100F       -1.69  -20.08   33.25   10.63   -0.42  -37.37

SO BUILDHGT BLR3       26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR3       26.67   26.67   26.67   26.67   26.67   21.03
SO BUILDHGT BLR3       20.73   20.73   20.73   20.50   20.50   20.50
SO BUILDHGT BLR3       26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR3       26.67   26.67   26.67   41.45   41.45   41.45
SO BUILDHGT BLR3       28.55   28.55   28.55   28.55   21.03   20.73
SO BUILDWID BLR3       55.65   27.03   29.31   30.69   31.14   30.65
SO BUILDWID BLR3       29.22   26.91   49.07   26.91   40.07   85.57
SO BUILDWID BLR3      105.13  109.15   55.67   43.68   39.97   35.05
SO BUILDWID BLR3       55.65   27.03   29.31   30.69   31.14   30.65
SO BUILDWID BLR3       29.22   26.91   49.07   46.59   56.20   64.10
SO BUILDWID BLR3       62.36   63.03   61.79   58.68   32.97   24.69
SO BUILDLEN BLR3       45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR3       27.03   23.94   47.85   23.94   61.75   93.35
SO BUILDLEN BLR3      111.89  108.40   71.74   41.49   37.00   31.39
SO BUILDLEN BLR3       45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR3       27.03   23.94   47.85   75.14   72.66   67.98
SO BUILDLEN BLR3       71.65   72.63   71.40   68.00   76.49   68.58
SO XBADJ    BLR3      -39.44  -44.46  -48.13  -50.33  -51.01  -50.14
SO XBADJ    BLR3      -47.74  -43.89  -66.45  -36.48  -67.86   39.30
SO XBADJ    BLR3       28.36   35.20   40.96    1.38    1.17    0.91
SO XBADJ    BLR3       -5.82   15.24   17.48   19.19   20.32   20.83
SO XBADJ    BLR3       20.70   19.95   18.59 -213.31 -211.14 -202.55
SO XBADJ    BLR3     -140.25 -143.59 -142.57 -137.22 -124.00 -118.87
SO YBADJ    BLR3       40.37   19.63   14.14    8.23    2.07   -4.15
SO YBADJ    BLR3      -10.25  -16.04   -8.69  -25.99  -24.43  -50.41
SO YBADJ    BLR3      -41.83  -25.80  -36.09   12.22   15.88   19.05
SO YBADJ    BLR3      -40.37  -19.63  -14.14   -8.23   -2.07    4.15
SO YBADJ    BLR3       10.25   16.04    8.69   10.02  -20.65  -50.69
SO YBADJ    BLR3       20.44    2.75  -15.03  -32.35  -15.06   -7.16
**
SO EMISFACT BLR3    MONTH 1 1 1 0 0 0 0 0 0 0 1 1
**
SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)

SO SRCGROUP 8100 BLR8100B BLR8100F
SO SRCGROUP 38100 BLR8100B BLR8100F BLR3
**
SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG    0.0    0.0
RE GRIDPOLR POL DIST   2000 3000 4000 5000 7000 10000 15000 20000 25000
RE GRIDPOLR POL GDIR    36  10.00  10.00
RE GRIDPOLR POL END
RE DISCPOLR  BLR4        463.          10.
RE DISCPOLR  BLR4        600.          10.
RE DISCPOLR  BLR4        900.          10.
RE DISCPOLR  BLR4       1200.          10.
RE DISCPOLR  BLR4       1500.          10.
RE DISCPOLR  BLR4       1800.          10.
RE DISCPOLR  BLR4        485.          20.
RE DISCPOLR  BLR4        600.          20.
RE DISCPOLR  BLR4        900.          20.
RE DISCPOLR  BLR4       1200.          20.
RE DISCPOLR  BLR4       1500.          20.
RE DISCPOLR  BLR4       1800.          20.
RE DISCPOLR  BLR4        527.          30.
RE DISCPOLR  BLR4        600.          30.
RE DISCPOLR  BLR4        900.          30.
RE DISCPOLR  BLR4       1200.          30.
RE DISCPOLR  BLR4       1500.          30.
RE DISCPOLR  BLR4       1800.          30.
RE DISCPOLR  BLR4        538.          32.
RE DISCPOLR  BLR4        550.          34.
RE DISCPOLR  BLR4        564.          36.
RE DISCPOLR  BLR4        579.          38.
RE DISCPOLR  BLR4        595.          40.
RE DISCPOLR  BLR4        600.          40.
RE DISCPOLR  BLR4        900.          40.
RE DISCPOLR  BLR4       1200.          40.
RE DISCPOLR  BLR4       1500.          40.
RE DISCPOLR  BLR4       1800.          40.
RE DISCPOLR  BLR4        614.          42.
RE DISCPOLR  BLR4        634.          44.
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RE	DISCPOLR	BLR4	656.	46.
RE	DISCPOLR	BLR4	681.	48.
RE	DISCPOLR	BLR4	709.	50.
RE	DISCPOLR	BLR4	900.	50.
RE	DISCPOLR	BLR4	1200.	50.
RE	DISCPOLR	BLR4	1500.	50.
RE	DISCPOLR	BLR4	1800.	50.
RE	DISCPOLR	BLR4	741.	52.
RE	DISCPOLR	BLR4	776.	54.
RE	DISCPOLR	BLR4	815.	56.
RE	DISCPOLR	BLR4	861.	58.
RE	DISCPOLR	BLR4	912.	60.
RE	DISCPOLR	BLR4	1200.	60.
RE	DISCPOLR	BLR4	1500.	60.
RE	DISCPOLR	BLR4	1800.	60.
RE	DISCPOLR	BLR4	971.	62.
RE	DISCPOLR	BLR4	1040.	64.
RE	DISCPOLR	BLR4	1121.	66.
RE	DISCPOLR	BLR4	1217.	68.
RE	DISCPOLR	BLR4	1333.	70.
RE	DISCPOLR	BLR4	1500.	70.
RE	DISCPOLR	BLR4	1800.	70.
RE	DISCPOLR	BLR4	1476.	72.
RE	DISCPOLR	BLR4	1654.	74.
RE	DISCPOLR	BLR4	1885.	76.
RE	DISCPOLR	BLR4	2062.	78.
RE	DISCPOLR	BLR4	2048.	80.
RE	DISCPOLR	BLR4	2037.	82.
RE	DISCPOLR	BLR4	2028.	84.
RE	DISCPOLR	BLR4	2022.	86.
RE	DISCPOLR	BLR4	2018.	88.
RE	DISCPOLR	BLR4	2017.	90.
RE	DISCPOLR	BLR4	2018.	92.
RE	DISCPOLR	BLR4	2022.	94.
RE	DISCPOLR	BLR4	2028.	96.
RE	DISCPOLR	BLR4	2037.	98.
RE	DISCPOLR	BLR4	1785.	100.
RE	DISCPOLR	BLR4	1800.	100.
RE	DISCPOLR	BLR4	1491.	102.
RE	DISCPOLR	BLR4	1281.	104.
RE	DISCPOLR	BLR4	1125.	106.
RE	DISCPOLR	BLR4	1003.	108.
RE	DISCPOLR	BLR4	906.	110.
RE	DISCPOLR	BLR4	1200.	110.
RE	DISCPOLR	BLR4	1500.	110.
RE	DISCPOLR	BLR4	1800.	110.
RE	DISCPOLR	BLR4	828.	112.
RE	DISCPOLR	BLR4	762.	114.
RE	DISCPOLR	BLR4	707.	116.
RE	DISCPOLR	BLR4	663.	118.
RE	DISCPOLR	BLR4	675.	120.
RE	DISCPOLR	BLR4	900.	120.
RE	DISCPOLR	BLR4	1200.	120.
RE	DISCPOLR	BLR4	1500.	120.
RE	DISCPOLR	BLR4	1800.	120.
RE	DISCPOLR	BLR4	690.	122.
RE	DISCPOLR	BLR4	706.	124.
RE	DISCPOLR	BLR4	723.	126.
RE	DISCPOLR	BLR4	742.	128.
RE	DISCPOLR	BLR4	764.	130.
RE	DISCPOLR	BLR4	900.	130.
RE	DISCPOLR	BLR4	1200.	130.
RE	DISCPOLR	BLR4	1500.	130.
RE	DISCPOLR	BLR4	1800.	130.
RE	DISCPOLR	BLR4	787.	132.
RE	DISCPOLR	BLR4	813.	134.
RE	DISCPOLR	BLR4	842.	136.
RE	DISCPOLR	BLR4	874.	138.
RE	DISCPOLR	BLR4	910.	140.
RE	DISCPOLR	BLR4	1200.	140.
RE	DISCPOLR	BLR4	1500.	140.
RE	DISCPOLR	BLR4	1800.	140.
RE	DISCPOLR	BLR4	950.	142.
RE	DISCPOLR	BLR4	995.	144.
RE	DISCPOLR	BLR4	1046.	146.
RE	DISCPOLR	BLR4	1104.	148.
RE	DISCPOLR	BLR4	1170.	150.
RE	DISCPOLR	BLR4	1200.	150.
RE	DISCPOLR	BLR4	1500.	150.
RE	DISCPOLR	BLR4	1800.	150.
RE	DISCPOLR	BLR4	1246.	152.
RE	DISCPOLR	BLR4	1244.	154.
RE	DISCPOLR	BLR4	1224.	156.
RE	DISCPOLR	BLR4	1206.	158.

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RE DISCPOLR  BLR4   1190.   160.
RE DISCPOLR  BLR4   1200.   160.
RE DISCPOLR  BLR4   1500.   160.
RE DISCPOLR  BLR4   1800.   160.
RE DISCPOLR  BLR4   1176    162.
RE DISCPOLR  BLR4   1163.   164.
RE DISCPOLR  BLR4   1152.   166.
RE DISCPOLR  BLR4   1143.   168.
RE DISCPOLR  BLR4   1135.   170.
RE DISCPOLR  BLR4   1200.   170.
RE DISCPOLR  BLR4   1500.   170.
RE DISCPOLR  BLR4   1800.   170.
RE DISCPOLR  BLR4   1129    172.
RE DISCPOLR  BLR4   1124.   174.
RE DISCPOLR  BLR4   1121.   176.
RE DISCPOLR  BLR4   1119.   178.
RE DISCPOLR  BLR4   1118.   180.
RE DISCPOLR  BLR4   1200.   180.
RE DISCPOLR  BLR4   1500.   180.
RE DISCPOLR  BLR4   1800.   180.
RE DISCPOLR  BLR4   1119    182.
RE DISCPOLR  BLR4   1121.   184.
RE DISCPOLR  BLR4   1124.   186.
RE DISCPOLR  BLR4   1129.   188.
RE DISCPOLR  BLR4   1135.   190.
RE DISCPOLR  BLR4   1200.   190.
RE DISCPOLR  BLR4   1500.   190.
RE DISCPOLR  BLR4   1800.   190.
RE DISCPOLR  BLR4   1143    192.
RE DISCPOLR  BLR4   1152.   194.
RE DISCPOLR  BLR4   1163.   196.
RE DISCPOLR  BLR4   1176.   198.
RE DISCPOLR  BLR4   1178.   200.
RE DISCPOLR  BLR4   1200.   200.
RE DISCPOLR  BLR4   1500.   200.
RE DISCPOLR  BLR4   1800.   200.
RE DISCPOLR  BLR4   1076    202.
RE DISCPOLR  BLR4    991.   204.
RE DISCPOLR  BLR4    919.   206.
RE DISCPOLR  BLR4    858.   208.
RE DISCPOLR  BLR4    806.   210.
RE DISCPOLR  BLR4    900.   210.
RE DISCPOLR  BLR4   1200.   210.
RE DISCPOLR  BLR4   1500.   210.
RE DISCPOLR  BLR4   1800.   210.
RE DISCPOLR  BLR4    760    212.
RE DISCPOLR  BLR4    721.   214.
RE DISCPOLR  BLR4    686.   216.
RE DISCPOLR  BLR4    655.   218.
RE DISCPOLR  BLR4    627.   220.
RE DISCPOLR  BLR4    900.   220.
RE DISCPOLR  BLR4   1200.   220.
RE DISCPOLR  BLR4   1500.   220.
RE DISCPOLR  BLR4   1800.   220.
RE DISCPOLR  BLR4    602    222.
RE DISCPOLR  BLR4    580.   224.
RE DISCPOLR  BLR4    560.   226.
RE DISCPOLR  BLR4    542.   228.
RE DISCPOLR  BLR4    526.   230.
RE DISCPOLR  BLR4    600.   230.
RE DISCPOLR  BLR4    900.   230.
RE DISCPOLR  BLR4   1200.   230.
RE DISCPOLR  BLR4   1500.   230.
RE DISCPOLR  BLR4   1800.   230.
RE DISCPOLR  BLR4    465.   240.
RE DISCPOLR  BLR4    600.   240.
RE DISCPOLR  BLR4    900.   240.
RE DISCPOLR  BLR4   1200.   240.
RE DISCPOLR  BLR4   1500.   240.
RE DISCPOLR  BLR4   1800.   240.
RE DISCPOLR  BLR4    429.   250.
RE DISCPOLR  BLR4    600.   250.
RE DISCPOLR  BLR4    900.   250.
RE DISCPOLR  BLR4   1200.   250.
RE DISCPOLR  BLR4   1500.   250.
RE DISCPOLR  BLR4   1800.   250.
RE DISCPOLR  BLR4    409.   260.
RE DISCPOLR  BLR4    600.   260.
RE DISCPOLR  BLR4    900.   260.
RE DISCPOLR  BLR4   1200.   260.
RE DISCPOLR  BLR4   1500.   260.
RE DISCPOLR  BLR4   1800.   260.
RE DISCPOLR  BLR4    403.   270.
RE DISCPOLR  BLR4    600.   270.
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RE DISCPOLR  BLR4       900.        270.
RE DISCPOLR  BLR4      1200.        270.
RE DISCPOLR  BLR4      1500.        270.
RE DISCPOLR  BLR4      1800.        270.
RE DISCPOLR  BLR4       409.        280.
RE DISCPOLR  BLR4       600.        280.
RE DISCPOLR  BLR4       900.        280.
RE DISCPOLR  BLR4      1200.        280.
RE DISCPOLR  BLR4      1500.        280.
RE DISCPOLR  BLR4      1800.        280.
RE DISCPOLR  BLR4       429.        290.
RE DISCPOLR  BLR4       600.        290.
RE DISCPOLR  BLR4       900.        290.
RE DISCPOLR  BLR4      1200.        290.
RE DISCPOLR  BLR4      1500.        290.
RE DISCPOLR  BLR4      1800.        290.
RE DISCPOLR  BLR4       465.        300.
RE DISCPOLR  BLR4       600.        300.
RE DISCPOLR  BLR4       900.        300.
RE DISCPOLR  BLR4      1200.        300.
RE DISCPOLR  BLR4      1500.        300.
RE DISCPOLR  BLR4      1800.        300.
RE DISCPOLR  BLR4       526.        310.
RE DISCPOLR  BLR4       600.        310.
RE DISCPOLR  BLR4       900.        310.
RE DISCPOLR  BLR4      1200.        310.
RE DISCPOLR  BLR4      1500.        310.
RE DISCPOLR  BLR4      1800.        310.
RE DISCPOLR  BLR4       542         312.
RE DISCPOLR  BLR4       560.        314.
RE DISCPOLR  BLR4       580.        316.
RE DISCPOLR  BLR4       602.        318.
RE DISCPOLR  BLR4       595.        320.
RE DISCPOLR  BLR4       600.        320.
RE DISCPOLR  BLR4       900.        320.
RE DISCPOLR  BLR4      1200.        320.
RE DISCPOLR  BLR4      1500.        320.
RE DISCPOLR  BLR4      1800.        320.
RE DISCPOLR  BLR4       579         322.
RE DISCPOLR  BLR4       564.        324.
RE DISCPOLR  BLR4       550.        326.
RE DISCPOLR  BLR4       538.        328.
RE DISCPOLR  BLR4       527.        330.
RE DISCPOLR  BLR4       600.        330.
RE DISCPOLR  BLR4       900.        330.
RE DISCPOLR  BLR4      1200.        330.
RE DISCPOLR  BLR4      1500.        330.
RE DISCPOLR  BLR4      1800.        330.
RE DISCPOLR  BLR4       485.        340.
RE DISCPOLR  BLR4       600.        340.
RE DISCPOLR  BLR4       900.        340.
RE DISCPOLR  BLR4      1200.        340.
RE DISCPOLR  BLR4      1500.        340.
RE DISCPOLR  BLR4      1800.        340.
RE DISCPOLR  BLR4       463.        350.
RE DISCPOLR  BLR4       600.        350.
RE DISCPOLR  BLR4       900.        350.
RE DISCPOLR  BLR4      1200.        350.
RE DISCPOLR  BLR4      1500.        350.
RE DISCPOLR  BLR4      1800.        350.
RE DISCPOLR  BLR4       456.        360.
RE DISCPOLR  BLR4       600.        360.
RE DISCPOLR  BLR4       900.        360.
RE DISCPOLR  BLR4      1200.        360.
RE DISCPOLR  BLR4      1500.        360.
RE DISCPOLR  BLR4      1800.        360.
RE FINISHED

ME STARTING
ME INPUTFIL C:\MET\PBIPBI87.MET
ME ANEMHGHT    33 FEET
ME SURFDATA  12844  1987        PALM_BEACH_INTER
ME UAIRDATA  12844  1987        PALM_BEACH_INTER
ME WINDCATS    1.54    3.09     5.14     8.23    10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
```

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SAMS03.087
PRIME OUTPUT FILE NUMBER 2 :SAMS03.088
PRIME OUTPUT FILE NUMBER 3 :SAMS03.089
PRIME OUTPUT FILE NUMBER 4 :SAMS03.090
PRIME OUTPUT FILE NUMBER 5 :SAMS03.091
First title for last output file is: 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- SAM 03/26/03
Second title for last output file is: BLR 8 100 & 80% LOAD HS= 199 FT 1-& 3-HOUR

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: 8080					
HIGH 1-Hour					
	1987	1.38641	360.00	600.00	87091812
	1988	1.45275	310.00	900.00	88072611
	1989	1.33060	260.00	1200.00	89081111
	1990	1.45955	320.00	900.00	90080511
	1991	1.46048	360.00	900.00	91073114
HIGH 3-Hour					
	1987	0.84293	170.00	1500.00	87102612
	1988	0.76793	10.00	1800.00	88060815
	1989	0.79949	170.00	1800.00	89102612
	1990	0.77548	310.00	2000.00	90052815
	1991	0.84004	290.00	1500.00	91082912
SOURCE GROUP ID: 8100					
HIGH 1-Hour					
	1987	1.62740	320.00	900.00	87072711
	1988	1.65725	310.00	900.00	88072611
	1989	1.62805	260.00	1200.00	89081111
	1990	1.70293	300.00	900.00	90070112
	1991	1.62142	350.00	900.00	91061611
HIGH 3-Hour					
	1987	0.86838	170.00	1800.00	87102612
	1988	0.81532	10.00	2000.01	88060815
	1989	0.83839	310.00	2000.00	89071515
	1990	0.79250	310.00	2000.00	90052815
	1991	0.87724	290.00	1800.00	91082912
SOURCE GROUP ID: 38080					
HIGH 1-Hour					
	1987	1.38641	360.00	600.00	87091812
	1988	1.45275	310.00	900.00	88072611
	1989	1.33060	260.00	1200.00	89081111
	1990	1.45955	320.00	900.00	90080511
	1991	1.46048	360.00	900.00	91073114
HIGH 3-Hour					
	1987	0.84293	170.00	1500.00	87102612
	1988	0.76793	10.00	1800.00	88060815
	1989	0.79949	170.00	1800.00	89102612
	1990	0.64998	270.00	1800.00	90070712
	1991	0.84004	290.00	1500.00	91082912
SOURCE GROUP ID: 38100					
HIGH 1-Hour					
	1987	1.62740	320.00	900.00	87072711
	1988	1.65725	310.00	900.00	88072611
	1989	1.62805	260.00	1200.00	89081111
	1990	1.70293	300.00	900.00	90070112
	1991	1.62142	350.00	900.00	91061611
HIGH 3-Hour					
	1987	0.86838	170.00	1800.00	87102612
	1988	0.81532	10.00	2000.01	88060815
	1989	0.83839	310.00	2000.00	89071515
	1990	0.71219	120.00	3000.00	90072809
	1991	0.87724	290.00	1800.00	91082912

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

```
CO STARTING
CO TITLEONE 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- SAM       03/26/03
CO TITLETWO BLR 8 100 & 80% LOAD  HS= 199 FT  1-& 3-HOUR
CO MODELOPT DFAULT CONC    RURAL NOCMPL
CO AVERTIME 1 3
CO POLLUTID SO2
CO DCAYCOEF     .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING
**
** BLR 4 ORIGIN FOR GRID INCLUDING DISCRETE RECP
**
** Source Location Cards:
**           SRCID    SRCTYP       XS     YS
**
SO LOCATION  BLR4     POINT        0.0    0.0
SO LOCATION  BLR8100  POINT      -82.0   51.0
SO LOCATION  BLR8080  POINT      -82.0   51.0
SO LOCATION  BLR3     POINT      28.96   5.49
**
** Source Parameter Cards:
** POINT:  SRCID       QS      HS     TS       VS       DS

SO SRCPARAM  BLR4       0.0    45.7  344.3    25.66     2.50
SO SRCPARAM  BLR8100   1.35    60.7    439     15.3     3.96
SO SRCPARAM  BLR8080   1.08    60.7    439     12.3     3.96
SO SRCPARAM  BLR3     -0.25    64.9    330     14.2     2.44

SO BUILDHGT BLR8080-BLR8100       29.87   21.03   21.03   21.03   21.03   21.03
SO BUILDHGT BLR8080-BLR8100       21.03   21.03   21.03   21.03   26.67   26.67
SO BUILDHGT BLR8080-BLR8100       26.67   26.67   29.87   29.87   25.30   25.30
SO BUILDHGT BLR8080-BLR8100       29.87   21.03   21.03   21.03   21.03   21.03
SO BUILDHGT BLR8080-BLR8100       21.03   21.03   21.03   21.03   26.67   26.67
SO BUILDHGT BLR8080-BLR8100       26.67   26.67   29.87   29.87   29.87   25.30
SO BUILDWID BLR8080-BLR8100       22.52   24.06   25.28   25.72   25.38   24.27
SO BUILDWID BLR8080-BLR8100       22.42   22.34   24.08   25.09   40.07   66.68
SO BUILDWID BLR8080-BLR8100       31.14   31.17   27.37   26.43   73.92   69.74
SO BUILDWID BLR8080-BLR8100       22.52   24.06   25.28   25.72   25.38   24.27
SO BUILDWID BLR8080-BLR8100       22.42   22.34   24.08   25.09   40.07   30.65
SO BUILDWID BLR8080-BLR8100       31.14   30.69   27.37   26.43   22.52   69.74
SO BUILDLEN BLR8080-BLR8100       30.73   25.34   24.82   23.54   21.55   18.90
SO BUILDLEN BLR8080-BLR8100       15.68   16.30   19.51   22.12   61.75   92.90
SO BUILDLEN BLR8080-BLR8100       68.20   68.35   33.25   32.48   41.83   32.31
SO BUILDLEN BLR8080-BLR8100       30.73   25.34   24.82   23.54   21.55   18.90
SO BUILDLEN BLR8080-BLR8100       15.68   16.30   19.51   22.12   61.75   29.31
SO BUILDLEN BLR8080-BLR8100       30.69   31.14   33.25   32.48   30.73   32.31
SO XBADJ    BLR8080-BLR8100      -75.00  -29.25  -26.62  -23.18  -19.03  -14.31
SO XBADJ    BLR8080-BLR8100       -9.15   -5.88   -3.96   -1.93   51.96   26.44
SO XBADJ    BLR8080-BLR8100       53.15   51.32   33.25   46.48   48.25   46.42
SO XBADJ    BLR8080-BLR8100       44.27    3.91    1.80   -0.36   -2.51   -4.59
SO XBADJ    BLR8080-BLR8100       -6.53  -10.42  -15.54  -20.19 -113.71 -119.35
SO XBADJ    BLR8080-BLR8100     -121.35 -119.67   33.25  -78.96  -78.98  -78.73
SO YBADJ    BLR8080-BLR8100      -22.15  -12.20  -14.89  -17.13  -18.85  -20.00
SO YBADJ    BLR8080-BLR8100      -20.54  -20.46  -19.75  -18.45  -29.24  -31.74
SO YBADJ    BLR8080-BLR8100        1.69   19.84   33.25  -10.63   26.12   37.37
SO YBADJ    BLR8080-BLR8100       22.15   12.20   14.89   17.13   18.85   20.00
SO YBADJ    BLR8080-BLR8100       20.54   20.46   19.75   18.45   29.24   16.74
SO YBADJ    BLR8080-BLR8100       -1.69  -20.08   33.25   10.63   -0.42  -37.37

SO BUILDHGT BLR3        26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR3        26.67   26.67   26.67   26.67   26.67   21.03
SO BUILDHGT BLR3        20.73   20.73   20.73   20.50   20.50   20.50
SO BUILDHGT BLR3        26.67   26.67   26.67   26.67   26.67   26.67
SO BUILDHGT BLR3        26.67   26.67   26.67   41.45   41.45   41.45
SO BUILDHGT BLR3        28.55   28.55   28.55   28.55   21.03   20.73
SO BUILDWID BLR3        55.65   27.03   29.31   30.69   31.14   30.65
SO BUILDWID BLR3        29.22   26.91   49.07   26.91   40.07   85.57
SO BUILDWID BLR3       105.13  109.15   55.67   43.68   39.97   35.05
SO BUILDWID BLR3        55.65   27.03   29.31   30.69   31.14   30.65
SO BUILDWID BLR3        29.22   26.91   49.07   46.59   56.20   64.10
SO BUILDWID BLR3        62.36   63.03   61.79   58.68   32.97   24.69
SO BUILDLEN BLR3        45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR3        27.03   23.94   47.85   23.94   61.75   93.35
SO BUILDLEN BLR3       111.89  108.40   71.74   41.49   37.00   31.39
SO BUILDLEN BLR3        45.26   29.22   30.65   31.14   30.69   29.31
SO BUILDLEN BLR3        27.03   23.94   47.85   75.14   72.66   67.98
SO BUILDLEN BLR3        71.65   72.63   71.40   68.00   76.49   68.58
SO XBADJ    BLR3       -39.44  -44.46  -48.13  -50.33  -51.01  -50.14
SO XBADJ    BLR3       -47.74  -43.89  -66.45  -36.48  -67.86   39.30
SO XBADJ    BLR3        28.36   35.20   40.96    1.38    1.17    0.91
SO XBADJ    BLR3        -5.82   15.24   17.48   19.19   20.32   20.83
SO XBADJ    BLR3        20.70   19.95   18.59 -213.31 -211.14 -202.55
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SO XBADJ    BLR3      -140.25 -143.59 -142.57 -137.22 -124.00 -118.87
SO YBADJ    BLR3        40.37   19.63   14.14    8.23    2.07   -4.15
SO YBADJ    BLR3       -10.25  -16.04   -8.69  -25.99  -24.43  -50.41
SO YBADJ    BLR3       -41.83  -25.80  -36.09   12.22   15.88   19.05
SO YBADJ    BLR3       -40.37  -19.63  -14.14   -8.23   -2.07    4.15
SO YBADJ    BLR3        10.25   16.04    8.69   10.02  -20.65  -50.69
SO YBADJ    BLR3        20.44    2.75  -15.03  -32.35  -15.06   -7.16
**
SO EMISFACT BLR3   MONTH 1 1 1 1 1 0 0 0 0 0 1 1
**
SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
**
SO SRCGROUP 8080 BLR8080
SO SRCGROUP 8100 BLR8100
SO SRCGROUP 38080 BLR8080 BLR3
SO SRCGROUP 38100 BLR8100 BLR3
**
SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG    0.0    0.0
RE GRIDPOLR POL DIST  2000 3000 4000 5000 7000 10000 15000 20000 25000
RE GRIDPOLR POL GDIR   36  10.00  10.00
RE GRIDPOLR POL END
RE DISCPOLR  BLR4       463.          10.
RE DISCPOLR  BLR4       600.          10.
RE DISCPOLR  BLR4       900.          10.
RE DISCPOLR  BLR4      1200.          10.
RE DISCPOLR  BLR4      1500.          10.
RE DISCPOLR  BLR4      1800.          10.
RE DISCPOLR  BLR4       485.          20.
RE DISCPOLR  BLR4       600.          20.
RE DISCPOLR  BLR4       900.          20.
RE DISCPOLR  BLR4      1200.          20.
RE DISCPOLR  BLR4      1500.          20.
RE DISCPOLR  BLR4      1800.          20.
RE DISCPOLR  BLR4       527.          30.
RE DISCPOLR  BLR4       600.          30.
RE DISCPOLR  BLR4       900.          30.
RE DISCPOLR  BLR4      1200.          30.
RE DISCPOLR  BLR4      1500.          30.
RE DISCPOLR  BLR4      1800.          30.
RE DISCPOLR  BLR4       538.          32.
RE DISCPOLR  BLR4       550.          34.
RE DISCPOLR  BLR4       564.          36.
RE DISCPOLR  BLR4       579.          38.
RE DISCPOLR  BLR4       595.          40.
RE DISCPOLR  BLR4       600.          40.
RE DISCPOLR  BLR4       900.          40.
RE DISCPOLR  BLR4      1200.          40.
RE DISCPOLR  BLR4      1500.          40.
RE DISCPOLR  BLR4      1800.          40.
RE DISCPOLR  BLR4       614.          42.
RE DISCPOLR  BLR4       634.          44.
RE DISCPOLR  BLR4       656.          46.
RE DISCPOLR  BLR4       681.          48.
RE DISCPOLR  BLR4       709.          50.
RE DISCPOLR  BLR4       900.          50.
RE DISCPOLR  BLR4      1200.          50.
RE DISCPOLR  BLR4      1500.          50.
RE DISCPOLR  BLR4      1800.          50.
RE DISCPOLR  BLR4       741.          52.
RE DISCPOLR  BLR4       776.          54.
RE DISCPOLR  BLR4       815.          56.
RE DISCPOLR  BLR4       861.          58.
RE DISCPOLR  BLR4       912.          60.
RE DISCPOLR  BLR4      1200.          60.
RE DISCPOLR  BLR4      1500.          60.
RE DISCPOLR  BLR4      1800.          60.
RE DISCPOLR  BLR4       971.          62.
RE DISCPOLR  BLR4      1040.          64.
RE DISCPOLR  BLR4      1121.          66.
RE DISCPOLR  BLR4      1217.          68.
RE DISCPOLR  BLR4      1333.          70.
RE DISCPOLR  BLR4      1500.          70.
RE DISCPOLR  BLR4      1800.          70.
RE DISCPOLR  BLR4      1476.          72.
RE DISCPOLR  BLR4      1654.          74.
RE DISCPOLR  BLR4      1885.          76.
RE DISCPOLR  BLR4      2062.          78.
RE DISCPOLR  BLR4      2048.          80.
RE DISCPOLR  BLR4      2037.          82.
RE DISCPOLR  BLR4      2028.          84.
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RE DISCPOLR	BLR4	2022.	86.
RE DISCPOLR	BLR4	2018.	88.
RE DISCPOLR	BLR4	2017.	90.
RE DISCPOLR	BLR4	2018.	92.
RE DISCPOLR	BLR4	2022.	94.
RE DISCPOLR	BLR4	2028.	96.
RE DISCPOLR	BLR4	2037.	98.
RE DISCPOLR	BLR4	1785.	100.
RE DISCPOLR	BLR4	1800.	100.
RE DISCPOLR	BLR4	1491.	102.
RE DISCPOLR	BLR4	1281.	104.
RE DISCPOLR	BLR4	1125.	106.
RE DISCPOLR	BLR4	1003.	108.
RE DISCPOLR	BLR4	906.	110.
RE DISCPOLR	BLR4	1200.	110.
RE DISCPOLR	BLR4	1500.	110.
RE DISCPOLR	BLR4	1800.	110.
RE DISCPOLR	BLR4	828.	112.
RE DISCPOLR	BLR4	762.	114.
RE DISCPOLR	BLR4	707.	116.
RE DISCPOLR	BLR4	663.	118.
RE DISCPOLR	BLR4	675.	120.
RE DISCPOLR	BLR4	900.	120.
RE DISCPOLR	BLR4	1200.	120.
RE DISCPOLR	BLR4	1500.	120.
RE DISCPOLR	BLR4	1800.	120.
RE DISCPOLR	BLR4	690.	122.
RE DISCPOLR	BLR4	706.	124.
RE DISCPOLR	BLR4	723.	126.
RE DISCPOLR	BLR4	742.	128.
RE DISCPOLR	BLR4	764.	130.
RE DISCPOLR	BLR4	900.	130.
RE DISCPOLR	BLR4	1200.	130.
RE DISCPOLR	BLR4	1500.	130.
RE DISCPOLR	BLR4	1800.	130.
RE DISCPOLR	BLR4	787.	132.
RE DISCPOLR	BLR4	813.	134.
RE DISCPOLR	BLR4	842.	136.
RE DISCPOLR	BLR4	874.	138.
RE DISCPOLR	BLR4	910.	140.
RE DISCPOLR	BLR4	1200.	140.
RE DISCPOLR	BLR4	1500.	140.
RE DISCPOLR	BLR4	1800.	140.
RE DISCPOLR	BLR4	950.	142.
RE DISCPOLR	BLR4	995.	144.
RE DISCPOLR	BLR4	1046.	146.
RE DISCPOLR	BLR4	1104.	148.
RE DISCPOLR	BLR4	1170.	150.
RE DISCPOLR	BLR4	1200.	150.
RE DISCPOLR	BLR4	1500.	150.
RE DISCPOLR	BLR4	1800.	150.
RE DISCPOLR	BLR4	1246.	152.
RE DISCPOLR	BLR4	1244.	154.
RE DISCPOLR	BLR4	1224.	156.
RE DISCPOLR	BLR4	1206.	158.
RE DISCPOLR	BLR4	1190.	160.
RE DISCPOLR	BLR4	1200.	160.
RE DISCPOLR	BLR4	1500.	160.
RE DISCPOLR	BLR4	1800.	160.
RE DISCPOLR	BLR4	1176	162.
RE DISCPOLR	BLR4	1163.	164.
RE DISCPOLR	BLR4	1152.	166.
RE DISCPOLR	BLR4	1143.	168.
RE DISCPOLR	BLR4	1135.	170.
RE DISCPOLR	BLR4	1200.	170.
RE DISCPOLR	BLR4	1500.	170.
RE DISCPOLR	BLR4	1800.	170.
RE DISCPOLR	BLR4	1129	172.
RE DISCPOLR	BLR4	1124.	174.
RE DISCPOLR	BLR4	1121.	176.
RE DISCPOLR	BLR4	1119.	178.
RE DISCPOLR	BLR4	1118.	180.
RE DISCPOLR	BLR4	1200.	180.
RE DISCPOLR	BLR4	1500.	180.
RE DISCPOLR	BLR4	1800.	180.
RE DISCPOLR	BLR4	1119	182.
RE DISCPOLR	BLR4	1121.	184.
RE DISCPOLR	BLR4	1124.	186.
RE DISCPOLR	BLR4	1129.	188.
RE DISCPOLR	BLR4	1135.	190.
RE DISCPOLR	BLR4	1200.	190.
RE DISCPOLR	BLR4	1500.	190.
RE DISCPOLR	BLR4	1800.	190.
RE DISCPOLR	BLR4	1143	192.

RE DISCPOLR	BLR4	1152.	194.
RE DISCPOLR	BLR4	1163.	196.
RE DISCPOLR	BLR4	1176.	198.
RE DISCPOLR	BLR4	1178.	200.
RE DISCPOLR	BLR4	1200.	200.
RE DISCPOLR	BLR4	1500.	200.
RE DISCPOLR	BLR4	1800.	200.
RE DISCPOLR	BLR4	1076	202.
RE DISCPOLR	BLR4	991.	204.
RE DISCPOLR	BLR4	919.	206.
RE DISCPOLR	BLR4	858.	208.
RE DISCPOLR	BLR4	806.	210.
RE DISCPOLR	BLR4	900.	210.
RE DISCPOLR	BLR4	1200.	210.
RE DISCPOLR	BLR4	1500.	210.
RE DISCPOLR	BLR4	1800.	210.
RE DISCPOLR	BLR4	760	212.
RE DISCPOLR	BLR4	721.	214.
RE DISCPOLR	BLR4	686.	216.
RE DISCPOLR	BLR4	655.	218.
RE DISCPOLR	BLR4	627.	220.
RE DISCPOLR	BLR4	900.	220.
RE DISCPOLR	BLR4	1200.	220.
RE DISCPOLR	BLR4	1500.	220.
RE DISCPOLR	BLR4	1800.	220.
RE DISCPOLR	BLR4	602	222.
RE DISCPOLR	BLR4	580.	224.
RE DISCPOLR	BLR4	560.	226.
RE DISCPOLR	BLR4	542.	228.
RE DISCPOLR	BLR4	526.	230.
RE DISCPOLR	BLR4	600.	230.
RE DISCPOLR	BLR4	900.	230.
RE DISCPOLR	BLR4	1200.	230.
RE DISCPOLR	BLR4	1500.	230.
RE DISCPOLR	BLR4	1800.	230.
RE DISCPOLR	BLR4	465.	240.
RE DISCPOLR	BLR4	600.	240.
RE DISCPOLR	BLR4	900.	240.
RE DISCPOLR	BLR4	1200.	240.
RE DISCPOLR	BLR4	1500.	240.
RE DISCPOLR	BLR4	1800.	240.
RE DISCPOLR	BLR4	429.	250.
RE DISCPOLR	BLR4	600.	250.
RE DISCPOLR	BLR4	900.	250.
RE DISCPOLR	BLR4	1200.	250.
RE DISCPOLR	BLR4	1500.	250.
RE DISCPOLR	BLR4	1800.	250.
RE DISCPOLR	BLR4	409.	260.
RE DISCPOLR	BLR4	600.	260.
RE DISCPOLR	BLR4	900.	260.
RE DISCPOLR	BLR4	1200.	260.
RE DISCPOLR	BLR4	1500.	260.
RE DISCPOLR	BLR4	1800.	260.
RE DISCPOLR	BLR4	403.	270.
RE DISCPOLR	BLR4	600.	270.
RE DISCPOLR	BLR4	900.	270.
RE DISCPOLR	BLR4	1200.	270.
RE DISCPOLR	BLR4	1500.	270.
RE DISCPOLR	BLR4	1800.	270.
RE DISCPOLR	BLR4	409.	280.
RE DISCPOLR	BLR4	600.	280.
RE DISCPOLR	BLR4	900.	280.
RE DISCPOLR	BLR4	1200.	280.
RE DISCPOLR	BLR4	1500.	280.
RE DISCPOLR	BLR4	1800.	280.
RE DISCPOLR	BLR4	429.	290.
RE DISCPOLR	BLR4	600.	290.
RE DISCPOLR	BLR4	900.	290.
RE DISCPOLR	BLR4	1200.	290.
RE DISCPOLR	BLR4	1500.	290.
RE DISCPOLR	BLR4	1800.	290.
RE DISCPOLR	BLR4	465.	300.
RE DISCPOLR	BLR4	600.	300.
RE DISCPOLR	BLR4	900.	300.
RE DISCPOLR	BLR4	1200.	300.
RE DISCPOLR	BLR4	1500.	300.
RE DISCPOLR	BLR4	1800.	300.
RE DISCPOLR	BLR4	526.	310.
RE DISCPOLR	BLR4	600.	310.
RE DISCPOLR	BLR4	900.	310.
RE DISCPOLR	BLR4	1200.	310.
RE DISCPOLR	BLR4	1500.	310.
RE DISCPOLR	BLR4	1800.	310.
RE DISCPOLR	BLR4	542	312.

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RE DISCPOLR  BLR4       560.       314.
RE DISCPOLR  BLR4       580.       316.
RE DISCPOLR  BLR4       602.       318.
RE DISCPOLR  BLR4       595.       320.
RE DISCPOLR  BLR4       600.       320.
RE DISCPOLR  BLR4       900.       320.
RE DISCPOLR  BLR4      1200.       320.
RE DISCPOLR  BLR4      1500.       320.
RE DISCPOLR  BLR4      1800.       320.
RE DISCPOLR  BLR4       579        322.
RE DISCPOLR  BLR4       564.       324.
RE DISCPOLR  BLR4       550.       326.
RE DISCPOLR  BLR4       538.       328.
RE DISCPOLR  BLR4       527.       330.
RE DISCPOLR  BLR4       600.       330.
RE DISCPOLR  BLR4       900.       330.
RE DISCPOLR  BLR4      1200.       330.
RE DISCPOLR  BLR4      1500.       330.
RE DISCPOLR  BLR4      1800.       330.
RE DISCPOLR  BLR4       485.       340.
RE DISCPOLR  BLR4       600.       340.
RE DISCPOLR  BLR4       900.       340.
RE DISCPOLR  BLR4      1200.       340.
RE DISCPOLR  BLR4      1500.       340.
RE DISCPOLR  BLR4      1800.       340.
RE DISCPOLR  BLR4       463.       350.
RE DISCPOLR  BLR4       600.       350.
RE DISCPOLR  BLR4       900.       350.
RE DISCPOLR  BLR4      1200.       350.
RE DISCPOLR  BLR4      1500.       350.
RE DISCPOLR  BLR4      1800.       350.
RE DISCPOLR  BLR4       456.       360.
RE DISCPOLR  BLR4       600.       360.
RE DISCPOLR  BLR4       900.       360.
RE DISCPOLR  BLR4      1200.       360.
RE DISCPOLR  BLR4      1500.       360.
RE DISCPOLR  BLR4      1800.       360.
RE FINISHED

ME STARTING
ME INPUTFIL C:\MET\PBIPBI87.MET
ME ANEMHGHT    33 FEET
ME SURFDATA  12844  1987       PALM_BEACH_INTER
ME UAIRDATA  12844  1987       PALM_BEACH_INTER
ME WINDCATS    1.54    3.09    5.14    8.23   10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
```

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SAMS24.087
PRIME OUTPUT FILE NUMBER 2 :SAMS24.088
PRIME OUTPUT FILE NUMBER 3 :SAMS24.089
PRIME OUTPUT FILE NUMBER 4 :SAMS24.090
PRIME OUTPUT FILE NUMBER 5 :SAMS24.091
First title for last output file is: 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- SAM 03/26/03
Second title for last output file is: BLR 8 100 & 80% LOAD HS= 199 FT 8-& 24-HOUR

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	8080				
HIGH 8-Hour					
	1987	0.24292	220.00	1500.00	87053016
	1988	0.23398	260.00	1800.00	88061816
	1989	0.23593	310.00	2000.00	89071516
	1990	0.21245	310.00	2000.00	90052816
	1991	0.27971	290.00	3000.00	91052124
HIGH 24-Hour					
	1987	0.13382	270.00	3000.00	87111624
	1988	0.11453	260.00	4000.00	88013024
	1989	0.11169	310.00	4000.00	89040424
	1990	0.11716	320.00	3000.00	90101024
	1991	0.16583	290.00	3000.00	91052124
SOURCE GROUP ID:	8100				
HIGH 8-Hour					
	1987	0.24983	220.00	1500.00	87053016
	1988	0.24389	260.00	2000.01	88061816
	1989	0.24128	310.00	2000.00	89071516
	1990	0.21651	310.00	2000.00	90052816
	1991	0.27628	310.00	2000.00	91072416
HIGH 24-Hour					
	1987	0.13573	270.00	4000.00	87111624
	1988	0.11718	260.00	4000.00	88013024
	1989	0.11363	310.00	5000.00	89040424
	1990	0.11822	320.00	4000.00	90101024
	1991	0.14882	290.00	4000.00	91052124
SOURCE GROUP ID:	38080				
HIGH 8-Hour					
	1987	0.20467	140.00	1800.00	87102716
	1988	0.23398	260.00	1800.00	88061816
	1989	0.23593	310.00	2000.00	89071516
	1990	0.20940	280.00	1500.00	90081616
	1991	0.26412	310.00	2000.00	91072416
HIGH 24-Hour					
	1987	0.09182	300.00	5000.00	87062024
	1988	0.09707	260.00	2000.01	88061824
	1989	0.08587	330.00	4000.00	89060924
	1990	0.11716	320.00	3000.00	90101024
	1991	0.10839	300.00	2000.00	91072824
SOURCE GROUP ID:	38100				
HIGH 8-Hour					
	1987	0.21161	140.00	2000.00	87102716
	1988	0.24389	260.00	2000.01	88061816
	1989	0.24128	310.00	2000.00	89071516
	1990	0.21513	280.00	1800.00	90081616
	1991	0.27628	310.00	2000.00	91072416
HIGH 24-Hour					
	1987	0.09597	300.00	7000.00	87062024
	1988	0.10086	260.00	2000.01	88061824
	1989	0.08872	330.00	4000.00	89060924
	1990	0.11822	320.00	4000.00	90101024
	1991	0.11147	300.00	2000.00	91072824

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

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CO STARTING
CO TITLEONE 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- SAM       03/26/03
CO TITLETWO BLR 8 100 & 80% LOAD  HS= 199 FT  8-& 24-HOUR
CO MODELOPT DFAULT CONC    RURAL NOCMPL
CO AVERTIME 8 24
CO POLLUTID SO2
CO DCAYCOEF     .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING
**
** BLR 4 ORIGIN FOR GRID INCLUDING DISCRETE RECP
**
** Source Location Cards:
**           SRCID     SRCTYP        XS      YS
**
SO LOCATION  BLR4      POINT        0.0     0.0
SO LOCATION  BLR8100   POINT      -82.0    51.0
SO LOCATION  BLR8080   POINT      -82.0    51.0
SO LOCATION  BLR3      POINT      28.96    5.49
**
** Source Parameter Cards:
** POINT:   SRCID         QS       HS     TS        VS        DS

SO SRCPARAM  BLR4         0.0     45.7  344.3     25.66     2.50
SO SRCPARAM  BLR8100     0.72     60.7    439      15.3     3.96
SO SRCPARAM  BLR8080     0.58     60.7    439      12.3     3.96
SO SRCPARAM  BLR3       -0.25     64.9    330      14.2     2.44

SO BUILDHGT BLR8080-BLR8100        29.87    21.03    21.03    21.03    21.03    21.03
SO BUILDHGT BLR8080-BLR8100        21.03    21.03    21.03    21.03    26.67    26.67
SO BUILDHGT BLR8080-BLR8100        26.67    26.67    29.87    29.87    25.30    25.30
SO BUILDHGT BLR8080-BLR8100        29.87    21.03    21.03    21.03    21.03    21.03
SO BUILDHGT BLR8080-BLR8100        21.03    21.03    21.03    21.03    26.67    26.67
SO BUILDHGT BLR8080-BLR8100        26.67    26.67    29.87    29.87    29.87    25.30
SO BUILDWID BLR8080-BLR8100        22.52    24.06    25.28    25.72    25.38    24.27
SO BUILDWID BLR8080-BLR8100        22.42    22.34    24.08    25.09    40.07    66.68
SO BUILDWID BLR8080-BLR8100        31.14    31.17    27.37    26.43    73.92    69.74
SO BUILDWID BLR8080-BLR8100        22.52    24.06    25.28    25.72    25.38    24.27
SO BUILDWID BLR8080-BLR8100        22.42    22.34    24.08    25.09    40.07    30.65
SO BUILDWID BLR8080-BLR8100        31.14    30.69    27.37    26.43    22.52    69.74
SO BUILDLEN BLR8080-BLR8100        30.73    25.34    24.82    23.54    21.55    18.90
SO BUILDLEN BLR8080-BLR8100        15.68    16.30    19.51    22.12    61.75    92.90
SO BUILDLEN BLR8080-BLR8100        68.20    68.35    33.25    32.48    41.83    32.31
SO BUILDLEN BLR8080-BLR8100        30.73    25.34    24.82    23.54    21.55    18.90
SO BUILDLEN BLR8080-BLR8100        15.68    16.30    19.51    22.12    61.75    29.31
SO BUILDLEN BLR8080-BLR8100        30.69    31.14    33.25    32.48    30.73    32.31
SO XBADJ    BLR8080-BLR8100       -75.00   -29.25   -26.62   -23.18   -19.03   -14.31
SO XBADJ    BLR8080-BLR8100        -9.15    -5.88    -3.96    -1.93    51.96    26.44
SO XBADJ    BLR8080-BLR8100        53.15    51.32    33.25    46.48    48.25    46.42
SO XBADJ    BLR8080-BLR8100        44.27     3.91     1.80    -0.36    -2.51    -4.59
SO XBADJ    BLR8080-BLR8100        -6.53   -10.42   -15.54   -20.19  -113.71  -119.35
SO XBADJ    BLR8080-BLR8100      -121.35  -119.67    33.25   -78.96   -78.98   -78.73
SO YBADJ    BLR8080-BLR8100       -22.15   -12.20   -14.89   -17.13   -18.85   -20.00
SO YBADJ    BLR8080-BLR8100       -20.54   -20.46   -19.75   -18.45   -29.24   -31.74
SO YBADJ    BLR8080-BLR8100         1.69    19.84    33.25   -10.63    26.12    37.37
SO YBADJ    BLR8080-BLR8100        22.15    12.20    14.89    17.13    18.85    20.00
SO YBADJ    BLR8080-BLR8100        20.54    20.46    19.75    18.45    29.24    16.74
SO YBADJ    BLR8080-BLR8100        -1.69   -20.08    33.25    10.63    -0.42   -37.37

SO BUILDHGT BLR3         26.67    26.67    26.67    26.67    26.67    26.67
SO BUILDHGT BLR3         26.67    26.67    26.67    26.67    26.67    21.03
SO BUILDHGT BLR3         20.73    20.73    20.73    20.50    20.50    20.50
SO BUILDHGT BLR3         26.67    26.67    26.67    26.67    26.67    26.67
SO BUILDHGT BLR3         26.67    26.67    26.67    41.45    41.45    41.45
SO BUILDHGT BLR3         28.55    28.55    28.55    28.55    21.03    20.73
SO BUILDWID BLR3         55.65    27.03    29.31    30.69    31.14    30.65
SO BUILDWID BLR3         29.22    26.91    49.07    26.91    40.07    85.57
SO BUILDWID BLR3        105.13   109.15    55.67    43.68    39.97    35.05
SO BUILDWID BLR3         55.65    27.03    29.31    30.69    31.14    30.65
SO BUILDWID BLR3         29.22    26.91    49.07    46.59    56.20    64.10
SO BUILDWID BLR3         62.36    63.03    61.79    58.68    32.97    24.69
SO BUILDLEN BLR3         45.26    29.22    30.65    31.14    30.69    29.31
SO BUILDLEN BLR3         27.03    23.94    47.85    23.94    61.75    93.35
SO BUILDLEN BLR3        111.89   108.40    71.74    41.49    37.00    31.39
SO BUILDLEN BLR3         45.26    29.22    30.65    31.14    30.69    29.31
SO BUILDLEN BLR3         27.03    23.94    47.85    75.14    72.66    67.98
SO BUILDLEN BLR3         71.65    72.63    71.40    68.00    76.49    68.58
SO XBADJ    BLR3        -39.44   -44.46   -48.13   -50.33   -51.01   -50.14
SO XBADJ    BLR3        -47.74   -43.89   -66.45   -36.48   -67.86    39.30
SO XBADJ    BLR3         28.36    35.20    40.96     1.38     1.17     0.91
SO XBADJ    BLR3         -5.82    15.24    17.48    19.19    20.32    20.83
SO XBADJ    BLR3         20.70    19.95    18.59  -213.31  -211.14  -202.55
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SO XBADJ     BLR3      -140.25 -143.59 -142.57 -137.22 -124.00 -118.87
SO YBADJ     BLR3        40.37   19.63   14.14    8.23    2.07   -4.15
SO YBADJ     BLR3       -10.25  -16.04   -8.69  -25.99  -24.43  -50.41
SO YBADJ     BLR3       -41.83  -25.80  -36.09   12.22   15.88   19.05
SO YBADJ     BLR3       -40.37  -19.63  -14.14   -8.23   -2.07    4.15
SO YBADJ     BLR3        10.25   16.04    8.69   10.02  -20.65  -50.69
SO YBADJ     BLR3        20.44    2.75  -15.03  -32.35  -15.06   -7.16

SO EMISFACT BLR3   MONTH 1 1 1 1 1 0 0 0 0 0 1 1
**
SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
**
SO SRCGROUP 8080 BLR8080
SO SRCGROUP 8100 BLR8100
SO SRCGROUP 38080 BLR8080 BLR3
SO SRCGROUP 38100 BLR8100 BLR3
**
SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG   0.0   0.0
RE GRIDPOLR POL DIST  2000 3000 4000 5000 7000 10000 15000 20000 25000
RE GRIDPOLR POL GDIR   36  10.00  10.00
RE GRIDPOLR POL END
RE DISCPOLR  BLR4        463.         10.
RE DISCPOLR  BLR4        600.         10.
RE DISCPOLR  BLR4        900.         10.
RE DISCPOLR  BLR4       1200.         10.
RE DISCPOLR  BLR4       1500.         10.
RE DISCPOLR  BLR4       1800.         10.
RE DISCPOLR  BLR4        485.         20.
RE DISCPOLR  BLR4        600.         20.
RE DISCPOLR  BLR4        900.         20.
RE DISCPOLR  BLR4       1200.         20.
RE DISCPOLR  BLR4       1500.         20.
RE DISCPOLR  BLR4       1800.         20.
RE DISCPOLR  BLR4        527.         30.
RE DISCPOLR  BLR4        600.         30.
RE DISCPOLR  BLR4        900.         30.
RE DISCPOLR  BLR4       1200.         30.
RE DISCPOLR  BLR4       1500.         30.
RE DISCPOLR  BLR4       1800.         30.
RE DISCPOLR  BLR4        538.         32.
RE DISCPOLR  BLR4        550.         34.
RE DISCPOLR  BLR4        564.         36.
RE DISCPOLR  BLR4        579.         38.
RE DISCPOLR  BLR4        595.         40.
RE DISCPOLR  BLR4        600.         40.
RE DISCPOLR  BLR4        900.         40.
RE DISCPOLR  BLR4       1200.         40.
RE DISCPOLR  BLR4       1500.         40.
RE DISCPOLR  BLR4       1800.         40.
RE DISCPOLR  BLR4        614.         42.
RE DISCPOLR  BLR4        634.         44.
RE DISCPOLR  BLR4        656.         46.
RE DISCPOLR  BLR4        681.         48.
RE DISCPOLR  BLR4        709.         50.
RE DISCPOLR  BLR4        900.         50.
RE DISCPOLR  BLR4       1200.         50.
RE DISCPOLR  BLR4       1500.         50.
RE DISCPOLR  BLR4       1800.         50.
RE DISCPOLR  BLR4        741.         52.
RE DISCPOLR  BLR4        776.         54.
RE DISCPOLR  BLR4        815.         56.
RE DISCPOLR  BLR4        861.         58.
RE DISCPOLR  BLR4        912.         60.
RE DISCPOLR  BLR4       1200.         60.
RE DISCPOLR  BLR4       1500.         60.
RE DISCPOLR  BLR4       1800.         60.
RE DISCPOLR  BLR4        971.         62.
RE DISCPOLR  BLR4       1040.         64.
RE DISCPOLR  BLR4       1121.         66.
RE DISCPOLR  BLR4       1217.         68.
RE DISCPOLR  BLR4       1333.         70.
RE DISCPOLR  BLR4       1500.         70.
RE DISCPOLR  BLR4       1800.         70.
RE DISCPOLR  BLR4       1476.         72.
RE DISCPOLR  BLR4       1654.         74.
RE DISCPOLR  BLR4       1885.         76.
RE DISCPOLR  BLR4       2062.         78.
RE DISCPOLR  BLR4       2048.         80.
RE DISCPOLR  BLR4       2037.         82.
RE DISCPOLR  BLR4       2028.         84.
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RE	DISCPOLR	BLR4	2022.	86.
RE	DISCPOLR	BLR4	2018.	88.
RE	DISCPOLR	BLR4	2017.	90.
RE	DISCPOLR	BLR4	2018.	92.
RE	DISCPOLR	BLR4	2022.	94.
RE	DISCPOLR	BLR4	2028.	96.
RE	DISCPOLR	BLR4	2037.	98.
RE	DISCPOLR	BLR4	1785.	100.
RE	DISCPOLR	BLR4	1800.	100.
RE	DISCPOLR	BLR4	1491.	102.
RE	DISCPOLR	BLR4	1281.	104.
RE	DISCPOLR	BLR4	1125.	106.
RE	DISCPOLR	BLR4	1003.	108.
RE	DISCPOLR	BLR4	906.	110.
RE	DISCPOLR	BLR4	1200.	110.
RE	DISCPOLR	BLR4	1500.	110.
RE	DISCPOLR	BLR4	1800.	110.
RE	DISCPOLR	BLR4	828.	112.
RE	DISCPOLR	BLR4	762.	114.
RE	DISCPOLR	BLR4	707.	116.
RE	DISCPOLR	BLR4	663.	118.
RE	DISCPOLR	BLR4	675.	120.
RE	DISCPOLR	BLR4	900.	120.
RE	DISCPOLR	BLR4	1200.	120.
RE	DISCPOLR	BLR4	1500.	120.
RE	DISCPOLR	BLR4	1800.	120.
RE	DISCPOLR	BLR4	690.	122.
RE	DISCPOLR	BLR4	706.	124.
RE	DISCPOLR	BLR4	723.	126.
RE	DISCPOLR	BLR4	742.	128.
RE	DISCPOLR	BLR4	764.	130.
RE	DISCPOLR	BLR4	900.	130.
RE	DISCPOLR	BLR4	1200.	130.
RE	DISCPOLR	BLR4	1500.	130.
RE	DISCPOLR	BLR4	1800.	130.
RE	DISCPOLR	BLR4	787.	132.
RE	DISCPOLR	BLR4	813.	134.
RE	DISCPOLR	BLR4	842.	136.
RE	DISCPOLR	BLR4	874.	138.
RE	DISCPOLR	BLR4	910.	140.
RE	DISCPOLR	BLR4	1200.	140.
RE	DISCPOLR	BLR4	1500.	140.
RE	DISCPOLR	BLR4	1800.	140.
RE	DISCPOLR	BLR4	950.	142.
RE	DISCPOLR	BLR4	995.	144.
RE	DISCPOLR	BLR4	1046.	146.
RE	DISCPOLR	BLR4	1104.	148.
RE	DISCPOLR	BLR4	1170.	150.
RE	DISCPOLR	BLR4	1200.	150.
RE	DISCPOLR	BLR4	1500.	150.
RE	DISCPOLR	BLR4	1800.	150.
RE	DISCPOLR	BLR4	1246.	152.
RE	DISCPOLR	BLR4	1244.	154.
RE	DISCPOLR	BLR4	1224.	156.
RE	DISCPOLR	BLR4	1206.	158.
RE	DISCPOLR	BLR4	1190.	160.
RE	DISCPOLR	BLR4	1200.	160.
RE	DISCPOLR	BLR4	1500.	160.
RE	DISCPOLR	BLR4	1800.	160.
RE	DISCPOLR	BLR4	1176	162.
RE	DISCPOLR	BLR4	1163.	164.
RE	DISCPOLR	BLR4	1152.	166.
RE	DISCPOLR	BLR4	1143.	168.
RE	DISCPOLR	BLR4	1135.	170.
RE	DISCPOLR	BLR4	1200.	170.
RE	DISCPOLR	BLR4	1500.	170.
RE	DISCPOLR	BLR4	1800.	170.
RE	DISCPOLR	BLR4	1129	172.
RE	DISCPOLR	BLR4	1124.	174.
RE	DISCPOLR	BLR4	1121.	176.
RE	DISCPOLR	BLR4	1119.	178.
RE	DISCPOLR	BLR4	1118.	180.
RE	DISCPOLR	BLR4	1200.	180.
RE	DISCPOLR	BLR4	1500.	180.
RE	DISCPOLR	BLR4	1800.	180.
RE	DISCPOLR	BLR4	1119	182.
RE	DISCPOLR	BLR4	1121.	184.
RE	DISCPOLR	BLR4	1124.	186.
RE	DISCPOLR	BLR4	1129.	188.
RE	DISCPOLR	BLR4	1135.	190.
RE	DISCPOLR	BLR4	1200.	190.
RE	DISCPOLR	BLR4	1500.	190.
RE	DISCPOLR	BLR4	1800.	190.
RE	DISCPOLR	BLR4	1143	192.

RE	DISCPOLR	BLR4	1152.	194.
RE	DISCPOLR	BLR4	1163.	196.
RE	DISCPOLR	BLR4	1176.	198.
RE	DISCPOLR	BLR4	1178.	200.
RE	DISCPOLR	BLR4	1200.	200.
RE	DISCPOLR	BLR4	1500.	200.
RE	DISCPOLR	BLR4	1800.	200.
RE	DISCPOLR	BLR4	1076	202.
RE	DISCPOLR	BLR4	991.	204.
RE	DISCPOLR	BLR4	919.	206.
RE	DISCPOLR	BLR4	858.	208.
RE	DISCPOLR	BLR4	806.	210.
RE	DISCPOLR	BLR4	900.	210.
RE	DISCPOLR	BLR4	1200.	210.
RE	DISCPOLR	BLR4	1500.	210.
RE	DISCPOLR	BLR4	1800.	210.
RE	DISCPOLR	BLR4	760	212.
RE	DISCPOLR	BLR4	721.	214.
RE	DISCPOLR	BLR4	686.	216.
RE	DISCPOLR	BLR4	655.	218.
RE	DISCPOLR	BLR4	627.	220.
RE	DISCPOLR	BLR4	900.	220.
RE	DISCPOLR	BLR4	1200.	220.
RE	DISCPOLR	BLR4	1500.	220.
RE	DISCPOLR	BLR4	1800.	220.
RE	DISCPOLR	BLR4	602	222.
RE	DISCPOLR	BLR4	580.	224.
RE	DISCPOLR	BLR4	560.	226.
RE	DISCPOLR	BLR4	542.	228.
RE	DISCPOLR	BLR4	526.	230.
RE	DISCPOLR	BLR4	600.	230.
RE	DISCPOLR	BLR4	900.	230.
RE	DISCPOLR	BLR4	1200.	230.
RE	DISCPOLR	BLR4	1500.	230.
RE	DISCPOLR	BLR4	1800.	230.
RE	DISCPOLR	BLR4	465.	240.
RE	DISCPOLR	BLR4	600.	240.
RE	DISCPOLR	BLR4	900.	240.
RE	DISCPOLR	BLR4	1200.	240.
RE	DISCPOLR	BLR4	1500.	240.
RE	DISCPOLR	BLR4	1800.	240.
RE	DISCPOLR	BLR4	429.	250.
RE	DISCPOLR	BLR4	600.	250.
RE	DISCPOLR	BLR4	900.	250.
RE	DISCPOLR	BLR4	1200.	250.
RE	DISCPOLR	BLR4	1500.	250.
RE	DISCPOLR	BLR4	1800.	250.
RE	DISCPOLR	BLR4	409.	260.
RE	DISCPOLR	BLR4	600.	260.
RE	DISCPOLR	BLR4	900.	260.
RE	DISCPOLR	BLR4	1200.	260.
RE	DISCPOLR	BLR4	1500.	260.
RE	DISCPOLR	BLR4	1800.	260.
RE	DISCPOLR	BLR4	403.	270.
RE	DISCPOLR	BLR4	600.	270.
RE	DISCPOLR	BLR4	900.	270.
RE	DISCPOLR	BLR4	1200.	270.
RE	DISCPOLR	BLR4	1500.	270.
RE	DISCPOLR	BLR4	1800.	270.
RE	DISCPOLR	BLR4	409.	280.
RE	DISCPOLR	BLR4	600.	280.
RE	DISCPOLR	BLR4	900.	280.
RE	DISCPOLR	BLR4	1200.	280.
RE	DISCPOLR	BLR4	1500.	280.
RE	DISCPOLR	BLR4	1800.	280.
RE	DISCPOLR	BLR4	429.	290.
RE	DISCPOLR	BLR4	600.	290.
RE	DISCPOLR	BLR4	900.	290.
RE	DISCPOLR	BLR4	1200.	290.
RE	DISCPOLR	BLR4	1500.	290.
RE	DISCPOLR	BLR4	1800.	290.
RE	DISCPOLR	BLR4	465.	300.
RE	DISCPOLR	BLR4	600.	300.
RE	DISCPOLR	BLR4	900.	300.
RE	DISCPOLR	BLR4	1200.	300.
RE	DISCPOLR	BLR4	1500.	300.
RE	DISCPOLR	BLR4	1800.	300.
RE	DISCPOLR	BLR4	526.	310.
RE	DISCPOLR	BLR4	600.	310.
RE	DISCPOLR	BLR4	900.	310.
RE	DISCPOLR	BLR4	1200.	310.
RE	DISCPOLR	BLR4	1500.	310.
RE	DISCPOLR	BLR4	1800.	310.
RE	DISCPOLR	BLR4	542	312.

```
RE DISCPOLR  BLR4       560.       314.
RE DISCPOLR  BLR4       580.       316.
RE DISCPOLR  BLR4       602.       318.
RE DISCPOLR  BLR4       595.       320.
RE DISCPOLR  BLR4       600.       320.
RE DISCPOLR  BLR4       900.       320.
RE DISCPOLR  BLR4      1200.       320.
RE DISCPOLR  BLR4      1500.       320.
RE DISCPOLR  BLR4      1800.       320.
RE DISCPOLR  BLR4       579        322.
RE DISCPOLR  BLR4       564.       324.
RE DISCPOLR  BLR4       550.       326.
RE DISCPOLR  BLR4       538.       328.
RE DISCPOLR  BLR4       527.       330.
RE DISCPOLR  BLR4       600.       330.
RE DISCPOLR  BLR4       900.       330.
RE DISCPOLR  BLR4      1200.       330.
RE DISCPOLR  BLR4      1500.       330.
RE DISCPOLR  BLR4      1800.       330.
RE DISCPOLR  BLR4       485.       340.
RE DISCPOLR  BLR4       600.       340.
RE DISCPOLR  BLR4       900.       340.
RE DISCPOLR  BLR4      1200.       340.
RE DISCPOLR  BLR4      1500.       340.
RE DISCPOLR  BLR4      1800.       340.
RE DISCPOLR  BLR4       463.       350.
RE DISCPOLR  BLR4       600.       350.
RE DISCPOLR  BLR4       900.       350.
RE DISCPOLR  BLR4      1200.       350.
RE DISCPOLR  BLR4      1500.       350.
RE DISCPOLR  BLR4      1800.       350.
RE DISCPOLR  BLR4       456.       360.
RE DISCPOLR  BLR4       600.       360.
RE DISCPOLR  BLR4       900.       360.
RE DISCPOLR  BLR4      1200.       360.
RE DISCPOLR  BLR4      1500.       360.
RE DISCPOLR  BLR4      1800.       360.
RE FINISHED

ME STARTING
ME INPUTFIL C:\MET\PBIPBI87.MET
ME ANEMHGHT    33 FEET
ME SURFDATA  12844  1987       PALM_BEACH_INTER
ME UAIRDATA  12844  1987       PALM_BEACH_INTER
ME WINDCATS    1.54    3.09    5.14    8.23   10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
```

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SAMSAN.087
PRIME OUTPUT FILE NUMBER 2 :SAMSAN.088
PRIME OUTPUT FILE NUMBER 3 :SAMSAN.089
PRIME OUTPUT FILE NUMBER 4 :SAMSAN.090
PRIME OUTPUT FILE NUMBER 5 :SAMSAN.091
rst title for last output file is: 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- SAM 03/25/03
cond title for last output file is: BLR 8 100 & 80% LOAD HS= 199 FT ANNUAL

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	8080				
Annual					
	1987	0.00675	300.00	4000.00	87123124
	1988	0.00625	270.00	3000.00	88123124
	1989	0.00704	300.00	4000.00	89123124
	1990	0.00813	300.00	4000.00	90123124
	1991	0.00764	300.00	4000.00	91123124
SOURCE GROUP ID:	38080				
Annual					
	1987	0.00498	300.00	5000.00	87123124
	1988	0.00414	300.00	5000.00	88123124
	1989	0.00509	300.00	5000.00	89123124
	1990	0.00550	300.00	5000.00	90123124
	1991	0.00464	300.00	5000.00	91123124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

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CO STARTING
CO TITLEONE 1987 USSUGAR CLEWISTON MILL, BLR 8 & BLR 3- SAM      03/25/03
CO TITLETWO BLR 8 100 & 80% LOAD HS= 199 FT ANNUAL
CO MODELOPT DFAULT CONC    RURAL NOCMPL
CO AVERTIME PERIOD
CO POLLUTID SO2
CO DCAYCOEF     .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING
**
** BLR 4 ORIGIN FOR GRID INCLUDING DISCRETE RECP
**
** Source Location Cards:
**          SRCID    SRCTYP       XS      YS
**
SO LOCATION  BLR4     POINT        0.0     0.0
SO LOCATION  BLR8080  POINT      -82.0    51.0
SO LOCATION  BLR3     POINT      28.96    5.49
**
** Source Parameter Cards:
** POINT:   SRCID        QS       HS      TS       VS       DS

SO SRCPARAM  BLR4        0.0     45.7  344.3    25.66     2.50
SO SRCPARAM  BLR8080    0.36     60.7    439     12.3     3.96
SO SRCPARAM  BLR3     -0.082     64.9    330     14.2     2.44

SO BUILDHGT BLR8080       29.87    21.03    21.03    21.03    21.03    21.03
SO BUILDHGT BLR8080       21.03    21.03    21.03    21.03    26.67    26.67
SO BUILDHGT BLR8080       26.67    26.67    29.87    29.87    25.30    25.30
SO BUILDHGT BLR8080       29.87    21.03    21.03    21.03    21.03    21.03
SO BUILDHGT BLR8080       21.03    21.03    21.03    21.03    26.67    26.67
SO BUILDHGT BLR8080       26.67    26.67    29.87    29.87    29.87    25.30
SO BUILDWID BLR8080       22.52    24.06    25.28    25.72    25.38    24.27
SO BUILDWID BLR8080       22.42    22.34    24.08    25.09    40.07    66.68
SO BUILDWID BLR8080       31.14    31.17    27.37    26.43    73.92    69.74
SO BUILDWID BLR8080       22.52    24.06    25.28    25.72    25.38    24.27
SO BUILDWID BLR8080       22.42    22.34    24.08    25.09    40.07    30.65
SO BUILDWID BLR8080       31.14    30.69    27.37    26.43    22.52    69.74
SO BUILDLEN BLR8080       30.73    25.34    24.82    23.54    21.55    18.90
SO BUILDLEN BLR8080       15.68    16.30    19.51    22.12    61.75    92.90
SO BUILDLEN BLR8080       68.20    68.35    33.25    32.48    41.83    32.31
SO BUILDLEN BLR8080       30.73    25.34    24.82    23.54    21.55    18.90
SO BUILDLEN BLR8080       15.68    16.30    19.51    22.12    61.75    29.31
SO BUILDLEN BLR8080       30.69    31.14    33.25    32.48    30.73    32.31
SO XBADJ    BLR8080      -75.00   -29.25   -26.62   -23.18   -19.03   -14.31
SO XBADJ    BLR8080       -9.15    -5.88    -3.96    -1.93    51.96    26.44
SO XBADJ    BLR8080       53.15    51.32    33.25    46.48    48.25    46.42
SO XBADJ    BLR8080       44.27     3.91     1.80    -0.36    -2.51    -4.59
SO XBADJ    BLR8080       -6.53   -10.42   -15.54   -20.19  -113.71  -119.35
SO XBADJ    BLR8080     -121.35  -119.67    33.25   -78.96   -78.98   -78.73
SO YBADJ    BLR8080      -22.15   -12.20   -14.89   -17.13   -18.85   -20.00
SO YBADJ    BLR8080      -20.54   -20.46   -19.75   -18.45   -29.24   -31.74
SO YBADJ    BLR8080        1.69    19.84    33.25   -10.63    26.12    37.37
SO YBADJ    BLR8080       22.15    12.20    14.89    17.13    18.85    20.00
SO YBADJ    BLR8080       20.54    20.46    19.75    18.45    29.24    16.74
SO YBADJ    BLR8080       -1.69   -20.08    33.25    10.63    -0.42   -37.37

SO BUILDHGT BLR3       26.67    26.67    26.67    26.67    26.67    26.67
SO BUILDHGT BLR3       26.67    26.67    26.67    26.67    26.67    21.03
SO BUILDHGT BLR3       20.73    20.73    20.73    20.50    20.50    20.50
SO BUILDHGT BLR3       26.67    26.67    26.67    26.67    26.67    26.67
SO BUILDHGT BLR3       26.67    26.67    26.67    41.45    41.45    41.45
SO BUILDHGT BLR3       28.55    28.55    28.55    28.55    21.03    20.73
SO BUILDWID BLR3       55.65    27.03    29.31    30.69    31.14    30.65
SO BUILDWID BLR3       29.22    26.91    49.07    26.91    40.07    85.57
SO BUILDWID BLR3      105.13   109.15    55.67    43.68    39.97    35.05
SO BUILDWID BLR3       55.65    27.03    29.31    30.69    31.14    30.65
SO BUILDWID BLR3       29.22    26.91    49.07    46.59    56.20    64.10
SO BUILDWID BLR3       62.36    63.03    61.79    58.68    32.97    24.69
SO BUILDLEN BLR3       45.26    29.22    30.65    31.14    30.69    29.31
SO BUILDLEN BLR3       27.03    23.94    47.85    23.94    61.75    93.35
SO BUILDLEN BLR3      111.89   108.40    71.74    41.49    37.00    31.39
SO BUILDLEN BLR3       45.26    29.22    30.65    31.14    30.69    29.31
SO BUILDLEN BLR3       27.03    23.94    47.85    75.14    72.66    67.98
SO BUILDLEN BLR3       71.65    72.63    71.40    68.00    76.49    68.58
SO XBADJ    BLR3      -39.44   -44.46   -48.13   -50.33   -51.01   -50.14
SO XBADJ    BLR3      -47.74   -43.89   -66.45   -36.48   -67.86    39.30
SO XBADJ    BLR3       28.36    35.20    40.96     1.38     1.17     0.91
SO XBADJ    BLR3       -5.82    15.24    17.48    19.19    20.32    20.83
SO XBADJ    BLR3       20.70    19.95    18.59  -213.31  -211.14  -202.55
SO XBADJ    BLR3     -140.25  -143.59  -142.57  -137.22  -124.00  -118.87
SO YBADJ    BLR3       40.37    19.63    14.14     8.23     2.07    -4.15
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SO YBADJ     BLR3       -10.25  -16.04   -8.69  -25.99  -24.43  -50.41
SO YBADJ     BLR3       -41.83  -25.80  -36.09   12.22   15.88   19.05
SO YBADJ     BLR3       -40.37  -19.63  -14.14   -8.23   -2.07    4.15
SO YBADJ     BLR3        10.25   16.04    8.69   10.02  -20.65  -50.69
SO YBADJ     BLR3        20.44    2.75  -15.03  -32.35  -15.06   -7.16
**
SO EMISFACT BLR3   MONTH 1 1 1 1 1 0 0 0 0 0 1 1

SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
**
SO SRCGROUP 8080 BLR8080
SO SRCGROUP 38080 BLR8080 BLR3
**
SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG   0.0    0.0
RE GRIDPOLR POL DIST  2000 3000 4000 5000 7000 10000 15000 20000 25000
RE GRIDPOLR POL GDIR   36  10.00  10.00
RE GRIDPOLR POL END
RE DISCPOLR  BLR4       463.         10.
RE DISCPOLR  BLR4       600.         10.
RE DISCPOLR  BLR4       900.         10.
RE DISCPOLR  BLR4      1200.         10.
RE DISCPOLR  BLR4      1500.         10.
RE DISCPOLR  BLR4      1800.         10.
RE DISCPOLR  BLR4       485.         20.
RE DISCPOLR  BLR4       600.         20.
RE DISCPOLR  BLR4       900.         20.
RE DISCPOLR  BLR4      1200.         20.
RE DISCPOLR  BLR4      1500.         20.
RE DISCPOLR  BLR4      1800.         20.
RE DISCPOLR  BLR4       527.         30.
RE DISCPOLR  BLR4       600.         30.
RE DISCPOLR  BLR4       900.         30.
RE DISCPOLR  BLR4      1200.         30.
RE DISCPOLR  BLR4      1500.         30.
RE DISCPOLR  BLR4      1800.         30.
RE DISCPOLR  BLR4       538.         32.
RE DISCPOLR  BLR4       550.         34.
RE DISCPOLR  BLR4       564.         36.
RE DISCPOLR  BLR4       579.         38.
RE DISCPOLR  BLR4       595.         40.
RE DISCPOLR  BLR4       600.         40.
RE DISCPOLR  BLR4       900.         40.
RE DISCPOLR  BLR4      1200.         40.
RE DISCPOLR  BLR4      1500.         40.
RE DISCPOLR  BLR4      1800.         40.
RE DISCPOLR  BLR4       614.         42.
RE DISCPOLR  BLR4       634.         44.
RE DISCPOLR  BLR4       656.         46.
RE DISCPOLR  BLR4       681.         48.
RE DISCPOLR  BLR4       709.         50.
RE DISCPOLR  BLR4       900.         50.
RE DISCPOLR  BLR4      1200.         50.
RE DISCPOLR  BLR4      1500.         50.
RE DISCPOLR  BLR4      1800.         50.
RE DISCPOLR  BLR4       741.         52.
RE DISCPOLR  BLR4       776.         54.
RE DISCPOLR  BLR4       815.         56.
RE DISCPOLR  BLR4       861.         58.
RE DISCPOLR  BLR4       912.         60.
RE DISCPOLR  BLR4      1200.         60.
RE DISCPOLR  BLR4      1500.         60.
RE DISCPOLR  BLR4      1800.         60.
RE DISCPOLR  BLR4       971.         62.
RE DISCPOLR  BLR4      1040.         64.
RE DISCPOLR  BLR4      1121.         66.
RE DISCPOLR  BLR4      1217.         68.
RE DISCPOLR  BLR4      1333.         70.
RE DISCPOLR  BLR4      1500.         70.
RE DISCPOLR  BLR4      1800.         70.
RE DISCPOLR  BLR4      1476.         72.
RE DISCPOLR  BLR4      1654.         74.
RE DISCPOLR  BLR4      1885.         76.
RE DISCPOLR  BLR4      2062.         78.
RE DISCPOLR  BLR4      2048.         80.
RE DISCPOLR  BLR4      2037.         82.
RE DISCPOLR  BLR4      2028.         84.
RE DISCPOLR  BLR4      2022.         86.
RE DISCPOLR  BLR4      2018.         88.
RE DISCPOLR  BLR4      2017.         90.
RE DISCPOLR  BLR4      2018.         92.
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RE	DISCPOLR	BLR4	2022.	94.
RE	DISCPOLR	BLR4	2028.	96.
RE	DISCPOLR	BLR4	2037.	98.
RE	DISCPOLR	BLR4	1785.	100.
RE	DISCPOLR	BLR4	1800.	100.
RE	DISCPOLR	BLR4	1491.	102.
RE	DISCPOLR	BLR4	1281.	104.
RE	DISCPOLR	BLR4	1125.	106.
RE	DISCPOLR	BLR4	1003.	108.
RE	DISCPOLR	BLR4	906.	110.
RE	DISCPOLR	BLR4	1200.	110.
RE	DISCPOLR	BLR4	1500.	110.
RE	DISCPOLR	BLR4	1800.	110.
RE	DISCPOLR	BLR4	828.	112.
RE	DISCPOLR	BLR4	762.	114.
RE	DISCPOLR	BLR4	707.	116.
RE	DISCPOLR	BLR4	663.	118.
RE	DISCPOLR	BLR4	675.	120.
RE	DISCPOLR	BLR4	900.	120.
RE	DISCPOLR	BLR4	1200.	120.
RE	DISCPOLR	BLR4	1500.	120.
RE	DISCPOLR	BLR4	1800.	120.
RE	DISCPOLR	BLR4	690.	122.
RE	DISCPOLR	BLR4	706.	124.
RE	DISCPOLR	BLR4	723.	126.
RE	DISCPOLR	BLR4	742.	128.
RE	DISCPOLR	BLR4	764.	130.
RE	DISCPOLR	BLR4	900.	130.
RE	DISCPOLR	BLR4	1200.	130.
RE	DISCPOLR	BLR4	1500.	130.
RE	DISCPOLR	BLR4	1800.	130.
RE	DISCPOLR	BLR4	787.	132.
RE	DISCPOLR	BLR4	813.	134.
RE	DISCPOLR	BLR4	842.	136.
RE	DISCPOLR	BLR4	874.	138.
RE	DISCPOLR	BLR4	910.	140.
RE	DISCPOLR	BLR4	1200.	140.
RE	DISCPOLR	BLR4	1500.	140.
RE	DISCPOLR	BLR4	1800.	140.
RE	DISCPOLR	BLR4	950.	142.
RE	DISCPOLR	BLR4	995.	144.
RE	DISCPOLR	BLR4	1046.	146.
RE	DISCPOLR	BLR4	1104.	148.
RE	DISCPOLR	BLR4	1170.	150.
RE	DISCPOLR	BLR4	1200.	150.
RE	DISCPOLR	BLR4	1500.	150.
RE	DISCPOLR	BLR4	1800.	150.
RE	DISCPOLR	BLR4	1246.	152.
RE	DISCPOLR	BLR4	1244.	154.
RE	DISCPOLR	BLR4	1224.	156.
RE	DISCPOLR	BLR4	1206.	158.
RE	DISCPOLR	BLR4	1190.	160.
RE	DISCPOLR	BLR4	1200.	160.
RE	DISCPOLR	BLR4	1500.	160.
RE	DISCPOLR	BLR4	1800.	160.
RE	DISCPOLR	BLR4	1176	162.
RE	DISCPOLR	BLR4	1163.	164.
RE	DISCPOLR	BLR4	1152.	166.
RE	DISCPOLR	BLR4	1143.	168.
RE	DISCPOLR	BLR4	1135.	170.
RE	DISCPOLR	BLR4	1200.	170.
RE	DISCPOLR	BLR4	1500.	170.
RE	DISCPOLR	BLR4	1800.	170.
RE	DISCPOLR	BLR4	1129	172.
RE	DISCPOLR	BLR4	1124.	174.
RE	DISCPOLR	BLR4	1121.	176.
RE	DISCPOLR	BLR4	1119.	178.
RE	DISCPOLR	BLR4	1118.	180.
RE	DISCPOLR	BLR4	1200.	180.
RE	DISCPOLR	BLR4	1500.	180.
RE	DISCPOLR	BLR4	1800.	180.
RE	DISCPOLR	BLR4	1119	182.
RE	DISCPOLR	BLR4	1121.	184.
RE	DISCPOLR	BLR4	1124.	186.
RE	DISCPOLR	BLR4	1129.	188.
RE	DISCPOLR	BLR4	1135.	190.
RE	DISCPOLR	BLR4	1200.	190.
RE	DISCPOLR	BLR4	1500.	190.
RE	DISCPOLR	BLR4	1800.	190.
RE	DISCPOLR	BLR4	1143	192.
RE	DISCPOLR	BLR4	1152.	194.
RE	DISCPOLR	BLR4	1163.	196.
RE	DISCPOLR	BLR4	1176.	198.
RE	DISCPOLR	BLR4	1178.	200.

RE	DISCPOLR	BLR4	1200.	200.
RE	DISCPOLR	BLR4	1500.	200.
RE	DISCPOLR	BLR4	1800.	200.
RE	DISCPOLR	BLR4	1076	202.
RE	DISCPOLR	BLR4	991.	204.
RE	DISCPOLR	BLR4	919.	206.
RE	DISCPOLR	BLR4	858.	208.
RE	DISCPOLR	BLR4	806.	210.
RE	DISCPOLR	BLR4	900.	210.
RE	DISCPOLR	BLR4	1200.	210.
RE	DISCPOLR	BLR4	1500.	210.
RE	DISCPOLR	BLR4	1800.	210.
RE	DISCPOLR	BLR4	760	212.
RE	DISCPOLR	BLR4	721.	214.
RE	DISCPOLR	BLR4	686.	216.
RE	DISCPOLR	BLR4	655.	218.
RE	DISCPOLR	BLR4	627.	220.
RE	DISCPOLR	BLR4	900.	220.
RE	DISCPOLR	BLR4	1200.	220.
RE	DISCPOLR	BLR4	1500.	220.
RE	DISCPOLR	BLR4	1800.	220.
RE	DISCPOLR	BLR4	602	222.
RE	DISCPOLR	BLR4	580.	224.
RE	DISCPOLR	BLR4	560.	226.
RE	DISCPOLR	BLR4	542.	228.
RE	DISCPOLR	BLR4	526.	230.
RE	DISCPOLR	BLR4	600.	230.
RE	DISCPOLR	BLR4	900.	230.
RE	DISCPOLR	BLR4	1200.	230.
RE	DISCPOLR	BLR4	1500.	230.
RE	DISCPOLR	BLR4	1800.	230.
RE	DISCPOLR	BLR4	465.	240.
RE	DISCPOLR	BLR4	600.	240.
RE	DISCPOLR	BLR4	900.	240.
RE	DISCPOLR	BLR4	1200.	240.
RE	DISCPOLR	BLR4	1500.	240.
RE	DISCPOLR	BLR4	1800.	240.
RE	DISCPOLR	BLR4	429.	250.
RE	DISCPOLR	BLR4	600.	250.
RE	DISCPOLR	BLR4	900.	250.
RE	DISCPOLR	BLR4	1200.	250.
RE	DISCPOLR	BLR4	1500.	250.
RE	DISCPOLR	BLR4	1800.	250.
RE	DISCPOLR	BLR4	409.	260.
RE	DISCPOLR	BLR4	600.	260.
RE	DISCPOLR	BLR4	900.	260.
RE	DISCPOLR	BLR4	1200.	260.
RE	DISCPOLR	BLR4	1500.	260.
RE	DISCPOLR	BLR4	1800.	260.
RE	DISCPOLR	BLR4	403.	270.
RE	DISCPOLR	BLR4	600.	270.
RE	DISCPOLR	BLR4	900.	270.
RE	DISCPOLR	BLR4	1200.	270.
RE	DISCPOLR	BLR4	1500.	270.
RE	DISCPOLR	BLR4	1800.	270.
RE	DISCPOLR	BLR4	409.	280.
RE	DISCPOLR	BLR4	600.	280.
RE	DISCPOLR	BLR4	900.	280.
RE	DISCPOLR	BLR4	1200.	280.
RE	DISCPOLR	BLR4	1500.	280.
RE	DISCPOLR	BLR4	1800.	280.
RE	DISCPOLR	BLR4	429.	290.
RE	DISCPOLR	BLR4	600.	290.
RE	DISCPOLR	BLR4	900.	290.
RE	DISCPOLR	BLR4	1200.	290.
RE	DISCPOLR	BLR4	1500.	290.
RE	DISCPOLR	BLR4	1800.	290.
RE	DISCPOLR	BLR4	465.	300.
RE	DISCPOLR	BLR4	600.	300.
RE	DISCPOLR	BLR4	900.	300.
RE	DISCPOLR	BLR4	1200.	300.
RE	DISCPOLR	BLR4	1500.	300.
RE	DISCPOLR	BLR4	1800.	300.
RE	DISCPOLR	BLR4	526.	310.
RE	DISCPOLR	BLR4	600.	310.
RE	DISCPOLR	BLR4	900.	310.
RE	DISCPOLR	BLR4	1200.	310.
RE	DISCPOLR	BLR4	1500.	310.
RE	DISCPOLR	BLR4	1800.	310.
RE	DISCPOLR	BLR4	542	312.
RE	DISCPOLR	BLR4	560.	314.
RE	DISCPOLR	BLR4	580.	316.
RE	DISCPOLR	BLR4	602.	318.
RE	DISCPOLR	BLR4	595.	320.

BEST AVAILABLE COPY

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RE DISCPOLR  BLR4        600.        320.
RE DISCPOLR  BLR4        900.        320.
RE DISCPOLR  BLR4       1200.        320.
RE DISCPOLR  BLR4       1500.        320.
RE DISCPOLR  BLR4       1800.        320.
RE DISCPOLR  BLR4        579         322.
RE DISCPOLR  BLR4        564.        324.
RE DISCPOLR  BLR4        550.        326.
RE DISCPOLR  BLR4        538.        328.
RE DISCPOLR  BLR4        527.        330.
RE DISCPOLR  BLR4        600.        330.
RE DISCPOLR  BLR4        900.        330.
RE DISCPOLR  BLR4       1200.        330.
RE DISCPOLR  BLR4       1500.        330.
RE DISCPOLR  BLR4       1800.        330.
RE DISCPOLR  BLR4        485.        340.
RE DISCPOLR  BLR4        600.        340.
RE DISCPOLR  BLR4        900.        340.
RE DISCPOLR  BLR4       1200.        340.
RE DISCPOLR  BLR4       1500.        340.
RE DISCPOLR  BLR4       1800.        340.
RE DISCPOLR  BLR4        463.        350.
RE DISCPOLR  BLR4        600.        350.
RE DISCPOLR  BLR4        900.        350.
RE DISCPOLR  BLR4       1200.        350.
RE DISCPOLR  BLR4       1500.        350.
RE DISCPOLR  BLR4       1800.        350.
RE DISCPOLR  BLR4        456.        360.
RE DISCPOLR  BLR4        600.        360.
RE DISCPOLR  BLR4        900.        360.
RE DISCPOLR  BLR4       1200.        360.
RE DISCPOLR  BLR4       1500.        360.
RE DISCPOLR  BLR4       1800.        360.
RE FINISHED

ME STARTING
ME INPUTFIL C:\MET\PBIPBI87.MET
ME ANEMHGHT    33 FEET
ME SURFDATA  12844  1987       PALM_BEACH_INTER
ME UAIRDATA  12844  1987       PALM_BEACH_INTER
ME WINDCATS    1.54     3.09    5.14     8.23    10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
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