The City of Lake Worth Utilities Administration

1900 2ND AVENUE NORTH
LAKE WORTH, FLORIDA 33461-4298

(561) 586-1665
FAX (561) 586-1702

June 12, 1996

Mr. John C. Brown, Jr. P.E.
Section Administrator Title V Program
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: Title V Air Permit Application for
Tom G. Smith Municipal Power Plant
Lake Worth, Florida

Dear Mr. Brown:

The City of Lake Worth Utilities submits for your review, in hard copy format, one (1) original and three (3) copies of the attached Title V Air Permit Application for the Tom G. Smith Municipal Power Plant, Lake Worth, Florida.

If you have any questions, please direct them to William Michael at (407) 586-1672 or Margaret Johnstone at (407) 533-7384 of this office.

Sincerely,
CITY OF LAKE WORTH UTILITIES

Harvey F. Wildschuetz, Utilities Director
Designated Representative

Attachments

c: AJ Satyal, Palm Beach County Health Department, w/o attachment
Al Magley, Jr. P.E., Raytheon Engineers and Constructors
Margaret Johnstone, Environmental Compliance Officer
Lloyd Gibb, Power Resources Superintendent
William Michael, Mechanical Systems Engineer

FINAL

1990 Clean Air Act Amendment

Title V Operating Air Permit

for

City of Lake Worth
Utilities Administration

Prepared by:

Raytheon Engineers & Constructors Inc.
501 E. Kennedy Boulevard
Tampa, Florida 33602-5231

May 29, 1996

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FLORIDA DEP LOGO

Department of
Environmental Protection

DIVISION OF AIR RESOURCES MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG FORM

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

I. APPLICATION INFORMATION

This section of the Application for Air Permit form identifies the facility and provides general information on the scope and purpose of this application. This section also includes information on the owner or authorized representative of the facility (or the responsible official in the case of a Title V source) and the necessary statements for the applicant and professional engineer, where required, to sign and date for formal submittal of the Application for Air Permit to the Department. If the application form is submitted to the Department using ELSA, this section of the Application for Air Permit must also be submitted in hard-copy.

Identification of Facility Addressed in This Application

Enter the name of the corporation, business, governmental entity, or individual that has ownership or control of the facility; the facility site name, if any; and the facility's physical location. If known, also enter the facility identification number.

1. Facility Owner/Company Name: Lake Worth Utitilities	
2. Site Name: Tom G. Smith Power Plant and Lake Worth Water Treatment Plant	
3. Facility Identification Number:	[ ] Unknown
4. Facility Location: Street Address or Other Locator: 117 South College Street City: Lake Worth County: Palm Beach Zip Code: 33460	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

Application Processing Information (DEP Use)

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

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
Harvey F. Wildschuetz/ Utilties Director

2. Owner/Authorized Representative or Responsible Official Mailing Address:

Organization/Firm: Lake Worth Utilities
Street Address: 1900 2nd Avenue North
City: Lake Worth State: Florida Zip Code: 33461

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
Telephone: (407) 586-1665 Fax: (407)586 -1702

4. Owner/Authorized Representative or Responsible Official Statement:

I, the undersigned, am the owner or authorized representative of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., 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

6/12/96
Date

* Attach letter of authorization if not currently on file.

Scope of Application

This Application for Air Permit addresses the following emissions unit(s) at the facility. An Emissions Unit Information Section (a Section III of the form) must be included for each emissions unit listed.

Emissions Unit ID	Description of Emissions Unit	Permit Type
1	MU-1 through MU-5; 5-2000 kW Diesel Generators (001-005)	
2	S-1; Fossil Fuel Steam Generating Unit #1 (007)	
3	S-3; Fossil Fuel Steam Generating Unit #3 (009)	
4	S-4; Fossil Fuel Steam Generating Unit #4 (010)	
5	GT-1; Gas Turbine #1 (006)	
6	CC1 (GT-2/S-5); Combined Cycle Combustion Turbine 2/Steam Unit 5 (011)	
7	T-3, T-4, T-5, T-6 fuel Oil Storage Tanks; 5000 gallon and 950 gallon Lube Oil Storage Tanks and Fuel Oil Fittings and Pumps	
8	T-10 and T-11 Fuel Oil Storage Tanks	
9	T-8 and T-12; Fuel Oil Storage Tanks	

Purpose of Application and Category

Check one (except as otherwise indicated):

Category I: All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain:

[X] Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

[ ] Initial air operation permit under Chapter 62-213, F.A.C., 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: _____

[ ] Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed: _____

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

Current construction permit number: _____

Operation permit to be revised: _____

[ ] Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. Also check Category III.

Operation permit to be revised/corrected: _____

[ ] Air operation permit revision for a Title V source 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 to be revised: _____

Reason for revision: _____

_____

Category II: All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain:

[ ] Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s):

_____

[ ] Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed: _____

[ ] Air operation permit revision for a synthetic non-Title V source. Give reason for revision; e.g., to address one or more newly constructed or modified emissions units.

Operation permit to be revised: _____

Reason for revision: _____

_____

Category III: All Air Construction Permit Applications for All Facilities and Emissions Units

This Application for Air Permit is submitted to obtain:

[ ] Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any: _____

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

Current operation permit number(s): _____

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

Application Processing Fee

Check one:

[ ] Attached - Amount: $_____ [x] Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations:
2. Projected or Actual Date of Commencement of Construction:
3. Projected Date of Completion of Construction:

Professional Engineer Certification

1. Professional Engineer Name: Albert D. Magley, Jr. Registration Number: PE 0046104
2. Professional Engineer Mailing Address: Organization/Firm: Raytheon Engineers & Constructors, Inc. Street Address: 501 East Kennedy Boulevard City: Tampa State: Florida Zip Code: 33602
3. Professional Engineer Telephone Numbers: Telephone: (813)209 -2535 Fax: (813)209 -2916

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 [X] 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 [ ] 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.

Albert D. Hagley — 5/29/96

Signature — Date

(seal)

ALBERT D. HAGLEY — CERTIFICATE NO. 46104 — STATE OF FLORIDA — REGISTERED ENGINEER

* Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact:
William C. Michael
Mechanical Systems Engineer

2. Application Contact Mailing Address:

Organization/Firm: Lake Worth Utilities
Street Address: 1900 2nd Avenue North
City: Lake Worth State: Florida Zip Code: 33461

3. Application Contact Telephone Numbers:
Telephone: (407)586 -1672 Fax: (407)586 -1702

Application Comment

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone:17	East (km):592.8	North (km):2943.7	
2. Facility Latitude/Longitude: Latitude (DD/MM/SS):26/36/45	Longitude (DD/MM/SS):80/04/04		
3. Governmental Facility Code:4	4. Facility Status Code:A	5. Facility Major Group SIC Code:49	6. Facility SIC(s): 4931
7. Facility Comment (limit to 500 characters):			

Facility Contact

1. Name and Title of Facility Contact: Harvey F. Wildshuetz/Utilities Director		
2. Facility Contact Mailing Address: Organization/Firm: Lake Worth Utilities Street Address: 1900 2nd Avenue North City: Lake Worth	State: Florida	Zip Code: 33461
3. Facility Contact Telephone Numbers: Telephone: (407)586 -1666	Fax: (407)586 -1702	

Facility Regulatory Classifications

1. Small Business Stationary Source? [ ] Yes [x] No [ ] Unknown
2. Title V Source? [x] Yes [ ] No
3. Synthetic Non-Title V Source? [ ] Yes [x] No
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)? [x] Yes [ ] No
5. Synthetic Minor Source of Pollutants Other than HAPs? [ ] Yes [x] No
6. Major Source of Hazardous Air Pollutants (HAPs)? [ ] Yes [x] No
7. Synthetic Minor Source of HAPs? [ ] Yes [x] No
8. One or More Emissions Units Subject to NSPS? [ ] Yes [x] No
9. One or More Emission Units Subject to NESHAP? [ ] Yes [x] No
10. Title V Source by EPA Designation? [ ] Yes [x] No
11. Facility Regulatory Classifications Comment (limit to 200 characters):

B. FACILITY REGULATIONS

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

N/A

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

Federal: 40 CFR 72	Acid Rain Program
40 CFR 73	SO2 Allowance System
40 CFR 75	Continuous Emissions Monitoring
State: 62-4, F.A.C.	General Permitting Requirements
62-210, F.A.C.	Stationary Sources - General Requirements
62-213, F.A.C.	Title V Permitting Requirements
62-214, F.A.C.	Acid Rain Program
62-275.410, F.A.C.	Air Quality Areas - Ozone Nonattainment
62-296, F.A.C.	NOx RACT
Title V Core List (3/25/96)	Presumptively Applicable (Federal & State)

C. FACILITY POLLUTANTS

Facility Pollutant Information

1. Pollutant Emitted	2. Pollutant Classification
SO_2	A
NO_X	A
PM	A
CO	A
VOC	B
PM_{10}	A
Pb	B
H095	B
H017	B
H169	B
H189	B
H001	B
H151	B
H104	B
H014	B
H015	B
H027	B
H046	B
H047	B
H113	B
H133	B
H162	B
H021	B
H148	B

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Detail Information: Pollutant _____ of _____

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

Facility Pollutant Detail Information: Pollutant _____ of _____

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

E. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

1. Area Map Showing Facility Location: [x] Attached, Document ID: Att. A [ ] Not Applicable [ ] Waiver Requested
2. Facility Plot Plan: [x] Attached, Document ID: Att. B [ ] Not Applicable [ ] Waiver Requested
3. Process Flow Diagram(s): [x] Attached, Document ID: Att. C [ ] 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: Att.F [ ] Not Applicable [ ] Waiver Requested
6. Supplemental Information for Construction Permit Application: [ ] Attached, Document ID: _____ [x] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities: [x] Attached, Document ID: Att. G [ ] Not Applicable
8. 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
9. Alternative Methods of Operation: [ ] Attached, Document ID: _____ [x] Not Applicable
10. Alternative Modes of Operation (Emissions Trading): [x] Attached, Document ID: Att. H [ ] Not Applicable

11. Identification of Additional Applicable Requirements: [ ] Attached, Document ID:_____ [x] Not Applicable
12. Compliance Assurance Monitoring Plan: [ ] Attached, Document ID:_____ [ ] Not Applicable
13. Risk Management Plan Verification: [ ] Plan Submitted to Implementing Agency - Verification Attached, Document ID:_____ [x] Plan to be Submitted to Implementing Agency by Required Date [ ] Not Applicable
14. Compliance Report and Plan: [x] Attached, Document ID: Att. I [ ] Not Applicable
15. Compliance Certification (Hard-copy Required): [x] Attached, Document ID: Att. J [ ] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. 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.

2. Single Process, Group of Processes, or Fugitive Only? 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.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Diesel Generators Units 1-5: each 2000 kW**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [x] Unknown		
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [ ] Yes [x] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters): Emission Unit Identification Numbers for the five Units are 001, 002, 003, 004 and 005		

Emissions Unit Control Equipment

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Details

1. Initial Startup Date: 1965		
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer:	Model Number:	
4. Generator Nameplate Rating: 2	MW each	
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:		°F seconds °F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate: 21 **Each**		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters):		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule:			
	hours/day		days/week
	weeks/year	8760 **Each**	hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

Federal: None	
State: **62-4, F.A.C.**	**Permitting Requirements**
62-210, F.A.C.	**Stationary Sources - General Requirements**
62-213, F.A.C.	**Title V Permitting Requirements**
62-275.410, F.A.C.	**Air Quality Areas - Ozone Nonattainment**
62-296.310(2)(a), F.A.C.	**Stationary Sources - Visible Emissions Standards**
62-296.570 (4)(b)(7)	**NOx RACT Limitations**
62-297.410(9), F.A.C.	**Stationary Sources - EPA Method 9 for Visible Emissions**
Title V Core List (3/25/96)	**Presumptively Applicable (Federal & State)**
Local: None	

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: MU-1, MU-2, MU-3, MU-4, MU-5
2. Emission Point Type Code: [ ] 1 [ ] 2 [X] 3 [ ] 4
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): 1. MU-1 Diesel Generating Unit 1 2. MU-2 Diesel Generating Unit 2 3. MU-3 Diesel Generating Unit 3 4. MU-4 Diesel Generating Unit 4 5. MU-5 Diesel Generating Unit 5
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: N/A
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [X] V [ ] W
6. Stack Height: 16.5 feet
7. Exit Diameter: 1.83 feet
8. Exit Temperature: 667 °F

9. Actual Volumetric Flow Rate: 19208	acfm
10. Percent Water Vapor :	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates: Zone: 17 East (km): 592.8 North (km): 2943.7	
14. Emission Point Comment (limit to 200 characters): The operations parameter for all five diesel units are identical.	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment __1___ of __1___

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): #2 Diesel Fuel Used in a Diesel Generator	
2. Source Classification Code (SCC): 20100102	
3. SCC Units: 1000 gallons burned	
4. Maximum Hourly Rate: 0.15 1000 gal/hr	5. Maximum Annual Rate: 1320.603 1000 gal/yr
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0.23	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 139.30	
10. Segment Comment (limit to 200 characters):	

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (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 Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO_2	--	--	NS
NO_X	--	--	EL
CO	--	--	NS
VOC	--	--	NS
PM	--	--	NS
H095	--	--	NS
H017	--	--	NS
H169	--	--	NS
H186	--	--	NS
H001	--	--	NS
H151	--	--	NS
Pb	--	--	NS
PM10	--	--	NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 1 of 6

1. Pollutant Emitted: SO2

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 7.59 lb/hour 33.28 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 7.2 x %S x 2 lbs SO2/Gal Oil
   Reference: Stoicheometric Calculation per Raisa Neginsky of DEP

7. Emissions Method Code:
   [ ] 0 [ ] 1 [X] 2 [ ] 3 [ ] 4 [ ] 5

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

$$\frac{7.2 \text{ lbs Oil/gal Oil} \times 1{,}320{,}603 \text{ gal Oil/yr} \times 0.0035 \text{ S/lb Oil} \times 2 \text{ lb SO2/1lb S}}{2000 \text{ lbs/ton}}$$

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

Potential Emission based on maximum heat input, 8760 hours/year, and the minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 2 of 6

1. Pollutant Emitted: NOx

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 99.8 lb/hour 436.91 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 4.75 lb NOx / MMBTu
   Reference: NOx RACT RULE
   Will be met as demonstrated by stack test @ Tom G. Smith Power Plant (7/93) See attachment L, Stack Test Results

7. Emissions Method Code:
   [ ] 0 [X] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing

$$\frac{4.75 \text{ lb NOx/MMBTU} \times 1320.603 \text{ 1000 gal Oil/yur} \times 139.3 \text{ MMBTU/1000 gal Oil}}{2000}$$

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

Potential Emission based on maximum heat input, 8760 hours/year, and the minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 4.75 lb NOx / MMBTU
4. Equivalent Allowable Emissions: 99.8 lb/hour 436.91 tons/year
5. Method of Compliance (limit to 60 characters): EPA Test Method 7E Conducted annually
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 3 of 6

1. Pollutant Emitted: CO

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 17.0 lb/hour 74.50 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 0.81 lb CO / MMBtu
   Reference: EPA AP-42 Table 3.4-1 Gaseous Emission Factors For Large Stationary Diesel and All Stationary Dual Engines

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing
   0.81 lb CO/MMBTU Oil x 1320.60 1000 gal Oil/yr x 139.3 MMBTU/1000 gal Oil
   ---
   2000 lbs/ton

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

Potential Emission based on maximum heat input, 8760 hours/year, and the minimum heating value of oil reported from 1992-1995

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 4 of 6

1. Pollutant Emitted: VOC

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 0.6 lb/hour 2.67 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 0.029 lb VOC / MMBTU Oil
   Reference: Stack Test @ Tom G. Smith Power Plant (7/93) See Attachment L, Stack Test Results

7. Emissions Method Code:
   [ ] 0 [X] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing
   $$\frac{0.029 \text{ lb VOC/MMBTU Oil} \times 1320.6 \text{ 1000 gal Oil/yr} \times 139.3 \text{ MMBTU/1000 gal Oil}}{2000 \text{ lbs/ton}}$$

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

Potential Emission based on maximum heat input, 8760 hours/year, and the minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 5 of 6

1. Pollutant Emitted: PM

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 5.5 lb/hour 12 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 33.5 lb PM / 1000 gal Oil
   Reference: EPA FIRE

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing

$$\frac{33.5 \text{ lbs PM/1000 gal Oil} \times 1320.6 \text{ 1000 gal/yr}}{2000 \text{ lbs/ton}}$$

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

Potential Emission based on maximum heat input, 8760 hours/year, and the minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 6 of 6

1. Pollutant Emitted: PM10

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 4.8 lb/hour 13 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 32 lb PM10 / 1000 gal Oil
   Reference: EPA FIRE

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing

$$\frac{32 \text{ lbs PM10/1000 gal Oil} \times 1320.6 \text{ 1000 gal Oil/yr}}{2000 \text{ lbs/ton}}$$

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

Potential Emission based on maximum heat input, 8760 hours/year, and the minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitation: Visible Emissions Limitation ___1___ of ___1___

1. Visible Emissions Subtype: VE
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: Compliance Test Method 9 conducted annually. Testing conducted using the fuel and/or process input which are expected to result in the highest emissions and within ten (10%) of the rated capacity of the source.
5. Visible Emissions Comment (limit to 200 characters):

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:
2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4. Method of Compliance:
5. Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

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):	

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):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [X] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[X] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code:			
PM	[ ] C	[ ] E	[ ] Unknown
SO2	[ ] C	[ ] E	[ ] Unknown
NO2	[ ] C	[ ] E	[ ] Unknown
4. Baseline Emissions:			
PM		lb/hour	tons/year
SO2		lb/hour	tons/year
NO2			tons/year
5. PSD Comment (limit to 200 characters): Commission year is 1965			

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

Supplemental Requirements for All Applications

1. Process Flow Diagram [x] Attached, Document ID:_Att C._ [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [x] Attached, Document ID:_Att. D_ [ ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [x] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [x] Attached, Document ID:_Att. E__ [ ] 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
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [x] Not Applicable
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:_____ [x] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [x] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

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. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [x] Not Applicable

14. Acid Rain 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:_____

[x] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. 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.

2. Single Process, Group of Processes, or Fugitive Only? 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.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Fossil Fuel Steam Generating Unit 1 (S-1)**		
2. Emissions Unit Identification Number:[ ]No Corresponding ID [ ] Unknown 007		
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [ ] Yes [x] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters):		

Emissions Unit Control Equipment

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Details

1. Initial Startup Date: 1961	
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer: Model Number:	
4. Generator Nameplate Rating: 7.5	MW
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:	 °F seconds °F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate: 111		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters):		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule:			
	hours/day		days/week
	weeks/year	8760 **Each**	hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

Federal: None	
State: **62-4, F.A.C.**	**Permitting Requirements**
62-210, F.A.C.	**Stationary Sources - General Requirements**
62-213, F.A.C.	**Title V Permitting Requirements**
62-275.410, F.A.C.	**Air Quality Areas - Ozone Nonattainment**
62-296.406(1), F.A.C.	**Stationary Sources - Visible Emissions Standards (Steam Generating Unit with Max Heat Input < 250 MMBTU/hr**
62-296.570 (4)(b)(9)	**NOx RACT Emission Limitations**
62-297.410(9), F.A.C.	**Stationary Sources - EPA Method 9 for Visible Emissions Testing**
Title V Core List (3/25/96)	**Presumptively Applicable (Federal & State)**
Local: None	

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: S-1 Fossil Fuel Steam Generating Unit #1	
2. Emission Point Type Code: [X] 1 [ ] 2 [ ] 3 [ ] 4	
3. Descriptions of Emissions 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: [ ] D [ ] F [ ] H [ ] P [ ] R [X] V [ ] W	
6. Stack Height: 60	feet
7. Exit Diameter: 5	feet
8. Exit Temperature: 311(gas); 300 (oil)	°F

9. Actual Volumetric Flow Rate: 40659 (gas); 4018 (oil)	acfm
10. Percent Water Vapor :	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates: Zone: 17 East (km): 592.8 North (km): 2943.7	
14. Emission Point Comment (limit to 200 characters):	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment __1___ of __2___

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Natural Gas Used in Boiler	
2. Source Classification Code (SCC): 10100601	
3. SCC Units: MMCF	
4. Maximum Hourly Rate: 0.11	5. Maximum Annual Rate: 946.8
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 1027	
10. Segment Comment (limit to 200 characters):	

Segment Description and Rate: Segment __2___ of __2___

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Number 5 Fuel Oil Used in Boiler
2. Source Classification Code (SCC): 10100405
3. SCC Units: 1000 gallons burned

4. Maximum Hourly Rate: 0.76	5. Maximum Annual Rate: 6623.71
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 2.25	8. Maximum Percent Ash: 0.067
9. Million Btu per SCC Unit: 146.80	

10. Segment Comment (limit to 200 characters):

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO_2	--	--	NS
NO_X	--	--	EL
PM	--	--	NS
CO	--	--	NS
VOC	--	--	NS
PM10	--	--	NS
H095	--	--	NS
H104	--	--	NS
H014	--	--	NS
H015	--	--	NS
H027	--	--	NS
H046	--	--	NS
H047	--	--	NS
H113	--	--	NS
H133	--	--	NS
H162	--	--	NS
Pb	--	--	NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 1 of 6

1. Pollutant Emitted: SO2

2. Total Percent Efficiency of Control: %

3. Potential Emissions:267 lb/hour 1169.91 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 157 *%S lb SO2/1000 gal Oil
   Reference: EPA AP-42 Table 1.3-2 Criteria Pollutant Emission Facotrs For Uncontrolled Fuel Oil Combustion

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

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

$$\frac{157 \text{ lbs SO2/1000 gal Oil} \times 2.25\%S \times 6623.71 \text{ 1000 galOil/yr}}{2000 \text{ lbs/ton}}$$

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

Potential Emissions based on maximum heat input, 8760 hours/year, and the minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 2 of 6

1. Pollutant Emitted: NOx

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 56 lb/hour 243.09 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 0.5 lb NOx / MMBTu
   Reference: NOx RACT RULE
   Will be met as demonstrated by stack test @ Tom G. Smith Power Plant (7/93) See attachment L, Stack Test Results

7. Emissions Method Code:
   [ ] 0 [X] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing
   0.5 lbs NOx/MMBTU x 6623.71 1000 gal Oil x 146.8 MBTU/1000 gal Oil
   ---
   2000 lbs/ton

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

   Potential Emissions based on maximum heat input, 8760 hours/year, and the minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.5 lb NOx / MMBTU
4. Equivalent Allowable Emissions: 56 lb/hour 243.09 tons/year
5. Method of Compliance (limit to 60 characters): EPA Test Method 7E Conducted annually
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 3 of 6

1. Pollutant Emitted: PM

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 18 lb/hour 79 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: (9.19 x %S + 3.22 lb PM/1000 gal Oil)
   Reference: EPA AP-42 Table 1.3-2

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing

$$\frac{\{(9.19 \times 2.25\%S \text{ Oil} + 3.22 \text{ lb PM/1000 gal Oil}\} \times 6623.71 \text{ 1000 gal Oil/yr}}{2000 \text{ lbs/ton}}$$

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

Potential Emissions based on maximum heat input, 8760 hours/year, and the minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 4 of 6

1. Pollutant Emitted: CO

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 4 lb/hour 19 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 40 lbs CO / MMCF gas
   Reference: EPA AP-42 Table 1.4-2

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Gas Firing

$$\frac{40 \text{ lbs CO/MMCF gas} \times 946.8 \text{ MMCF gas/yr}}{2000 \text{ lbs/ton}}$$

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

Potential Emissions based on maximum firing rate, 8760 hours/yr and minimum heating value of gas from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 5 of 6

1. Pollutant Emitted: VOC

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 1 lb/hour 3 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 0.76 lbs VOC / 1000 gal Oil
   Reference: EPA AP-42 Table 1.3-4

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing

$$\frac{0.76 \text{ lbs VOC/1000 gal Oil} \times 6623.71 \text{ 1000 gal Oil/yr}}{2000 \text{ lbs/ton}}$$

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

Potential Emission based on maximum firing rate, 8760 hours/yr and minimum heating value of oil from 1992-1995

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 6 of 6

1. Pollutant Emitted: PM10

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 13 lb/hour 56 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: {(9.19 x%S) + 3.22 lbs PM10/1000 gal Oil} x Particle Size Mult (0.71)
   Reference: EPA AP-42 Table 1.3-5

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing
   $$\frac{[\{(9.19 \times 2.25\%S) + 3.22 \text{ lbs PM10/1000 gal Oil}\} \times 6623.71 \text{ 1000 gal Oil/yr}] \times 0.71}{2000 \text{ lbs/ton}}$$

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

Potential Emission based on maximum firing rate, 8760 hours/yr and minimum heating value of oil from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitation: Visible Emissions Limitation ___1___ of ___1___

1. Visible Emissions Subtype: VE
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: Compliance Test Method 9 conducted annually. Testing conducted using the fuel and/or process input which are expected to result in the highest emissions and within ten (10%) of the rated capacity of the source.
5. Visible Emissions Comment (limit to 200 characters):

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:
2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4. Method of Compliance:
5. Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

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):	

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):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [X] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[X] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code:			
PM	[ ] C	[ ] E	[ ] Unknown
SO2	[ ] C	[ ] E	[ ] Unknown
NO2	[ ] C	[ ] E	[ ] Unknown
4. Baseline Emissions:			
PM		lb/hour	tons/year
SO2		lb/hour	tons/year
NO2			tons/year
5. PSD Comment (limit to 200 characters): Commission year is 1961			

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

Supplemental Requirements for All Applications

1. Process Flow Diagram [x] Attached, Document ID:_Att C._ [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [x] Attached, Document ID:_Att. D_ [ ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [x] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [x] Attached, Document ID:_Att. E__ [ ] 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
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [x] Not Applicable
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:_____ [x] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [x] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

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. Compliance Assurance Monitoring Plan
    [ ] Attached, Document ID:_____ [x] Not Applicable

14. Acid Rain 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:_____

    [x] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. 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.

2. Single Process, Group of Processes, or Fugitive Only? 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.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Fossil Fuel Steam Generating Unit 3 (S-3)**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown 009		
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [x] Yes [ ] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters):		

Emissions Unit Control Equipment

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Details

1. Initial Startup Date: 1966	
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer: Model Number:	
4. Generator Nameplate Rating: 26.5 MW	
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:	 °F seconds °F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate: 325.1		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters):		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule:		
	hours/day	days/week
	weeks/year 8760 **Each**	hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

Federal: 40 CFR 72	**Acid Rain Program**
40 CFR 73	**SO2 Allowance**
40 CFR 75	**Continuous Emissions Monitoring**
State: 62-4, F.A.C.	**Permitting Requirements**
62-210, F.A.C.	**Stationary Sources - General Requirements**
62-210.700(3)	**Visible Emissions Soot Blowing Opacity limit (60%)**
62-213, F.A.C.	**Title V Permitting Requirements**
62-275.410, F.A.C.	**Air Quality Areas - Ozone Nonattainment**
62-296.405(1)(a), F.A.C.	**Stationary Sources - Visible Emissions Standards (Steam Generating Unit with Max Heat Input > 250 MMBTU/hr)**
62-296.405(1)(b)	**0.1 lbs PM/MMBTU particulate emission limit**
62-296.570 (4)(b)(9)	**NOx RACT Emission Limitations**
62-297.410(9), F.A.C.	**Stationary Sources - EPA Method 9 for Visible Emissions Testing**
62-297.410(5), F.A.C.	**EPA Test Method 5 for PM (stack temperature> 375 F)**
62-297.410(17), F.A.C.	**EPA Test Method 17 for PM (stack temperature< 375 F)**
Section 403.501 Florida Statutes (PPSA Certification #PA 74-05 (I.1))	**Compliance with %S limit by sampling and analysis of as-fired fuel oil. Sample on used fuel. Analyse composite monthly**
Section 403.501 Florida Statutes (PPSA Certification #PA 74-05 (I.1))	**2.25% S in Fuel Oil limit**
Title V Core List (3/25/96)	**Presumptively Applicable (Federal & State)**
Local: None	

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: S-3 Fossil Fuel Steam Generating Unit #3
2. Emission Point Type Code: [X] 1 [ ] 2 [ ] 3 [ ] 4
3. Descriptions of Emissions 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: [ ] D [ ] F [ ] H [ ] P [ ] R [X] V [ ] W
6. Stack Height: 113 feet
7. Exit Diameter: 7 feet
8. Exit Temperature: 293 (gas); 289 (oil) °F

9. Actual Volumetric Flow Rate: 118719 (gas); 121338 (oil)	acfm
10. Percent Water Vapor :	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates: Zone: 17 East (km): 592.8 North (km): 2943.7	
14. Emission Point Comment (limit to 200 characters):	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment __1___ of __2___

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Natural Gas Used in Boiler
2. Source Classification Code (SCC): 10100601
3. SCC Units: MMCF

4. Maximum Hourly Rate: 0.317	5. Maximum Annual Rate: 2773
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 1027	

10. Segment Comment (limit to 200 characters):

Segment Description and Rate: Segment __2___ of __2___

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Number 5 Fuel Oil Used in Boiler
2. Source Classification Code (SCC): 10100405
3. SCC Units: 1000 gallons burned

4. Maximum Hourly Rate: 2.22	5. Maximum Annual Rate: 19432.13
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 2.25	8. Maximum Percent Ash:

9. Million Btu per SCC Unit: 146.6
10. Segment Comment (limit to 200 characters):

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO_2	--	--	EL
NO_X	--	--	EL
PM	--	--	EL
CO	--	--	NS
VOC	--	--	NS
PM_{10}	--	--	NS
H095	--	--	NS
H133	--	--	NS
H104	--	--	NS
H014	--	--	NS
H015	--	--	NS
H021	--	--	NS
H027	--	--	NS
H046	--	--	NS
H047	--	--	NS
H133	--	--	NS
H162	--	--	NS
Pb	--	--	NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 1 of 7

1. Pollutant Emitted: SO2

2. Total Percent Efficiency of Control: %

3. Potential Emissions:784 lb/hour 3432 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 157 *%S lb SO2/1000 gal Oil
   Reference: EPA AP-42 Table 1.3-2 Criteria Pollutant Emission Factors For Uncontrolled Fuel Oil Combustion

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

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

$$\frac{157 \text{ lbs SO2/1000 gal Oil} \times 2.25\%S \times 19432.13 \text{ 1000 galOil/yr}}{2000 \text{ lbs/ton}}$$

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

Potential Emissions based on maximum firing rate, 8760 hours/year and the minimum oil heating value from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: Other
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 2.475 lb SO2/MMBTU
4. Equivalent Allowable Emissions: 804.6 lb/hour 3524.25 tons/year
5. Method of Compliance (limit to 60 characters): Monthly fuel analysis reports submitted quarterly. SO2 emissions will be calculated stoichiometrically.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):Power Plant Citing Act Specific Condition I.1

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 2 of 7

1. Pollutant Emitted: NOx

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 162.6 lb/hour 711.97 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 0.5 lb NOx / MMBtu
   Reference: NOx RACT RULE
   Will be met as demonstrated by stack test @ Tom G. Smith Power Plant (7/93) See attachment L, Stack Test Results

7. Emissions Method Code:
   [ ] 0 [X] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing

$$\frac{0.5 \text{ lbs NOx/MMBTU OIL} \times 2847876 \text{ MMBTU/yr}}{2000 \text{ lbs/ton}}$$

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

Potential Emissions based on maximum firing rate and 8760 hours/year.

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.5 lb / MMBTU
4. Equivalent Allowable Emissions: 162.6 lb/hour 711.97 tons/year
5. Method of Compliance (limit to 60 characters): CEMS 30-day rolling average
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 3 of 7

1. Pollutant Emitted: PM

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 53 lb/hour 232 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: (9.19 x %S + 3.22 lb PM/1000 gal Oil)
   Reference: EPA AP-42 Table 1.3-2

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing

$$\frac{\{(9.19 \times 2.25\%S) + 3.22 \text{ lb PM/1000 gal Oil}\} \times 19432.13 \text{ 1000 gal Oil/yr}}{2000 \text{ lbs/ton}}$$

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

Potential Emissions based on maximum firing rate, 8760 hours/year and the minimum heating value of oil from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.1 lb PM/MMBTU
4. Equivalent Allowable Emissions: 32.5 lb/hour 142.35 tons/year
5. Method of Compliance (limit to 60 characters): Test required only if unit operation on oil, exclusive of startup, exceeds 400 hours/yr.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Rule: 62-296.405(1)(b)

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 4 of 7

1. Pollutant Emitted: CO

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 13 lb/hour 55 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 40 lbs CO / MMCF gas
   Reference: EPA AP-42 Table 1.4-2

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing

$$\frac{\text{40 lbs CO/MMCF gas x 2773 MMCF gas/yr}}{\text{2000 lbs/ton}}$$

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

Potential Emissions based on maximum firing rate, 8760 hours/year and the minimum gas heating value reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 5 of 7

1. Pollutant Emitted: VOC

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 2 lb/hour 7 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 0.76 lbs VOC / 1000 gal Oil
   Reference: EPA AP-42 Table 1.3-4

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing

$$\frac{0.76 \text{ lbs VOC/1000 gal Oil} \times 19432.71 \text{ 1000 gal Oil/yr}}{2000 \text{ lbs/ton}}$$

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

Potential Emissions based on maximum firing rate, 8760 hours/year and the minimum heating value of oil from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 6 of 7

1. Pollutant Emitted: PM10

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 38 lb/hour 165 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: {(9.19 x%S) + 3.22 lbs PM10/1000 gal Oil} x Particle Size Mult (0.71)
   Reference: EPA AP-42 Table 1.3-5

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing
   [{(9.19 x 2.25%S) + 3.22 lbs PM10/1000 gal Oil} x 19432.71 1000 gal Oil/yr] x 0.71

   2000 lbs/ton

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):
Potential Emissions based on maximum firing rate, 8760 hours/year and the minimum heating value of oil from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 7 of 7

1. Pollutant Emitted: HAPs	
2. Total Percent Efficiency of Control:	%
3. Potential Emissions: 0.6 lb/hour 2.79	tons/year
4. Synthetically Limited? [ ] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3	_____ to _____ tons/year
6. Emission Factor: Reference: See Attachment M for HAPs Emissions Calculations	
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5	
8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing See Attachment M for HAPs Emissions Calculations	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): HAPs: Formaldehyde (>1 tpy), Nickel (>1 tpy), Hexane, Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cobalt, Manganese, & Selenium.	

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitation: Visible Emissions Limitation ___1___ of ___2___

1. Visible Emissions Subtype: VE
2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: 40 % Maximum Period of Excess Opacity Allowed: 2 min/hour
4. Method of Compliance: Compliance Test Method 9 conducted annually. Testing conducted using the fuel and/or process input which are expected to result in the highest emissions and within ten (10%) of the rated capacity of the source.
5. Visible Emissions Comment (limit to 200 characters): 62-296.405(1)(a)

Visible Emissions Limitation: Visible Emissions Limitation ___2___ of ___2___

1. Visible Emissions Subtype: VES
2. Basis for Allowable Opacity: [x] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: 60 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: 4-6 min/3 hours min/hour
4. Method of Compliance:Compliance Test Method 9 conducted annually
5. Visible Emissions Comment (limit to 200 characters): Rule: 62-210.700(3)

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System: Continuous Monitor __1___ of __6___

1. Parameter Code: SO2	2. Pollutant(s):
3. CMS Requirement: [X] Rule	[ ] Other
4. Monitor Information: Manufacturer: TECO/Spectrum Systems Model Number: 43B Serial Number: 43B-48835-282	
5. Installation Date: 12/12/94	
6. Performance Specification Test Date: 12/20/94	
7. Continuous Monitor Comment (limit to 200 characters): Rule 62-214 F.A.C.	

Continuous Monitoring System: Continuous Monitor __2___ of __6___

1. Parameter Code: NOx	2. Pollutant(s):
3. CMS Requirement:[X] Rule	[ ] Other
4. Monitor Information: Manufacturer: TECO/Spectrum Model Number: 42D Serial Number: 42D-48739-281	
5. Installation Date: 12/12/94	
6. Performance Specification Test Date: 12/20/94	
7. Continuous Monitor Comment (limit to 200 characters): RULE 62-214, F.A.C.	

Continuous Monitoring System: Continuous Monitor __3___ of __6___

1. Parameter Code: CO2	2. Pollutant(s):
3. CMS Requirement: [X] Rule	[ ] Other
4. Monitor Information: Manufacturer: TECO/Spectrum Model Number: 42D Serial Number: 42D-48739-281	
5. Installation Date: 12/12/94	
6. Performance Specification Test Date: 12/20/94	
7. Continuous Monitor Comment (limit to 200 characters): Rule 62-214 F.A.C.	

Continuous Monitoring System: Continuous Monitor __4___ of __6___

1. Parameter Code: Flow	2. Pollutant(s):
3. CMS Requirement:[X] Rule	[ ] Other
4. Monitor Information: Manufacturer: United Sciences/ Spectrum Systems Model Number: Ultra Flow 100 Serial Number: 9401746	
5. Installation Date: Scheduled	
6. Performance Specification Test Date: 12/12/94	
7. Continuous Monitor Comment (limit to 200 characters): RULE 62-214, F.A.C.	

Continuous Monitoring System: Continuous Monitor __5___ of __6___

1. Parameter Code: VE	2. Pollutant(s):
3. CMS Requirement: [X] Rule	[ ] Other
4. Monitor Information: Manufacturer: United Sciences/Spectrum Systems Model Number: 500C Serial Number: 0394853	
5. Installation Date: 12/12/94	
6. Performance Specification Test Date: 12/20/94	
7. Continuous Monitor Comment (limit to 200 characters): Rule 62-214 F.A.C.	

Continuous Monitoring System: Continuous Monitor __6___ of __6___

1. Parameter Code: TEMP	2. Pollutant(s):
3. CMS Requirement:[X] Rule	[ ] Other
4. Monitor Information: Manufacturer: United Sciences/ Spectrum Systems Model Number: Ultra Flow 100 Serial Number: 9401746	
5. Installation Date: 12/12/94	
6. Performance Specification Test Date: 12/20/94	
7. Continuous Monitor Comment (limit to 200 characters): RULE 62-214, F.A.C. Temperature calculated using Ultrasonic Flow Monitor	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [X] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[X] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code:			
PM	[ ] C	[ ] E	[ ] Unknown
SO2	[ ] C	[ ] E	[ ] Unknown
NO2	[ ] C	[ ] E	[ ] Unknown
4. Baseline Emissions:			
PM		lb/hour	tons/year
SO2		lb/hour	tons/year
NO2			tons/year
5. PSD Comment (limit to 200 characters): Commission year is 1966			

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

Supplemental Requirements for All Applications

1. Process Flow Diagram [x] Attached, Document ID:_Att C._ [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [x] Attached, Document ID:_Att. D_ [ ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [x] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [x] Attached, Document ID:_Att. E__ [ ] 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
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [x] Not Applicable
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:_____ [x.] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [x] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [x] Not Applicable

11. Alternative Modes of Operation (Emissions Trading)
[x] Attached, Document ID:_Att. H_ [ ] Not Applicable

12. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [ ] Not Applicable

13. Compliance Assurance Monitoring Plan
[x] Attached, Document ID:_Att. K_ [ ] Not Applicable

14. Acid Rain Application (Hard-copy Required)

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

[ ] 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:_____

[ ] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. 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.

2. Single Process, Group of Processes, or Fugitive Only? 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.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Fossil Fuel Steam Generating Unit 4 (S-4)**		
2. Emissions Unit Identification Number:[ ]No Corresponding ID [ ] Unknown 010		
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [x] Yes [ ] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters): Unit S-4 is in extended forced outage.		

Emissions Unit Control Equipment

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Details

1. Initial Startup Date: 1970	
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer: Model Number:	
4. Generator Nameplate Rating: 33 MW	
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:	 °F seconds °F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate: 419.1		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters):		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule:		
	hours/day	days/week
	weeks/year 8760 **Each**	hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

Federal: 40 CFR 72	**Acid Rain Program**
40 CFR 73	**SO2 Allowance System**
40 CFR 75	**Continuous Emissions Monitoring**
State: 62-4, F.A.C.	**Permitting Requirements**
62-210, F.A.C.	**Stationary Sources - General Requirements**
62-210.700(3)	**Visible Emissions Soot Blowing Opacity limit (60%)**
62-213, F.A.C.	**Title V Permitting Requirements**
62-214, F.A.C.	**Acid Rain Program**
62-275.410, F.A.C.	**Air Quality Areas - Ozone Nonattainment**
62-296.405(1)(a), F.A.C.	**Stationary Sources - Visible Emissions Standards (Steam Generating Unit with Max Heat Input > 250 MMBTU/hr)**
62-296.405(1)(b)	**0.1 lbs PM/MMBTU particulate emission limit**
62-296.570 (4)(b)(9)	**NOx RACT Emission Limitations**
62-297.410(9), F.A.C.	**Stationary Sources - EPA Method 9 for Visible Emissions Testing**
62-297.410(5), F.A.C.	**EPA Test Method 5 for PM (stack temperature> 375 F)**
62-297.410(17), F.A.C.	**EPA Test Method 17 for PM (stack temperature< 375 F)**
Section 403.501 Florida Statutes (PPSA Certification #PA 74-05 (I.1))	**Compliance with %S limit by sampling and analysis of as-fired fuel oil. Sample on used fuel. Analyse composite monthly**
Section 403.501 Florida Statutes (PPSA Certification #PA 74-05 (I.1))	**2.25% S in Fuel Oil limit**
Title V Core List (3/25/96)	**Presumptively Applicable (Federal & State)**
Local: None	

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: S-4 Fossil Fuel Steam Generating Unit #4	
2. Emission Point Type Code: [X] 1 [ ] 2 [ ] 3 [ ] 4	
3. Descriptions of Emissions 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: [ ] D [ ] F [ ] H [ ] P [ ] R [X] V [ ] W	
6. Stack Height: 115	feet
7. Exit Diameter: 7.5	feet
8. Exit Temperature: 293 (gas); 289 (oil)	°F

9. Actual Volumetric Flow Rate: 147839 (gas); 151100 (oil)	acfm
10. Percent Water Vapor :	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates: Zone: 17 East (km): 592.8 North (km): 2943.7	
14. Emission Point Comment (limit to 200 characters):	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment __1___ of __2___

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Natural Gas Used in Boiler	
2. Source Classification Code (SCC): 10100601	
3. SCC Units: MMCF	
4. Maximum Hourly Rate: 0.41	5. Maximum Annual Rate: 3575
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 1027	
10. Segment Comment (limit to 200 characters):	

Segment Description and Rate: Segment __2___ of __2___

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Number 5 Fuel Oil Used in Boiler
2. Source Classification Code (SCC): 10100405
3. SCC Units: 1000 gallons burned

4. Maximum Hourly Rate: 2.86	5. Maximum Annual Rate: 25051
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 2.25	8. Maximum Percent Ash:

9. Million Btu per SCC Unit: 146.6
10. Segment Comment (limit to 200 characters):

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO_2	--	--	EL
NO_X	--	--	EL
PM	--	--	EL
CO	--	--	NS
VOC	--	--	NS
PM10	--	--	NS
H095	--	--	NS
H133	--	--	NS
H104	--	--	NS
H014	--	--	NS
H015	--	--	NS
H021	--	--	NS
H027	--	--	NS
H046	--	--	NS
H047	--	--	NS
H113	--	--	NS
H162	--	--	NS
Pb	--	--	NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 1 of 7

1. Pollutant Emitted: SO2

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 1010 lb/hour 4425 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 157 *%S lb SO2/1000 gal Oil
   Reference: EPA AP-42 Table 1.3-2 Criteria Pollutant Emission Factors For Uncontrolled Fuel Oil Combustion

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Based on Oil Firing

$$\frac{157 \text{ lbs SO2/1000 gal Oil} \times 2.25\%S \times 25051 \text{ 1000 galOil/yr}}{2000 \text{ lbs/ton}}$$

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

Potential Emissions based on maximum heat input rate, 8760 hours/year and the minimum heating value of oil from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: Other
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 2.475 lb SO2/MMBTU
4. Equivalent Allowable Emissions: 1037.3 lb/hour 4543.25 tons/year
5. Method of Compliance (limit to 60 characters): Monthly fuel analysis reports submitted quarterly. SO2 emissions will be calculated stoichiometrically.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):Power Plant Citing Act Specific Condition I.1

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 2 of 7

1. Pollutant Emitted: NOx

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 209.7 lb/hour 917.83 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 0.5 lb NOx / MMBTu
   Reference: NOx RACT RULE
   See attachment L, Stack Test Data for similar Unit 3

7. Emissions Method Code:
   [ ] 0 [X] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing

$$\frac{0.5 \text{ lbs NOx/MMBTU} \times 3671216 \text{ MMBTU/yr}}{2000 \text{ lbs/ton}}$$

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

Potential Emissions based on maximum heat input rate and 8760 hours/year.

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE
2. Future Effective Date of Allowable Emissions: Upon Startup after repairs are complete
3. Requested Allowable Emissions and Units: 0.5 lb NOx / MMBTU
4. Equivalent Allowable Emissions: 209.7 lb/hour 917.83 tons/year
5. Method of Compliance (limit to 60 characters): CEMS upon startup after repairs are complete.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 3 of 7

1. Pollutant Emitted: PM

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 68 lb/hour 299 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: (9.19 x %S + 3.22 lb PM/1000 gal Oil)
   Reference: EPA AP-42 Table 1.3-2

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing

$$\frac{\{(9.19 \times 2.25\%S) + 3.22 \text{ lb PM/1000 gal Oil}\} \times 25051 \text{ 1000 gal Oil/yr}}{2000 \text{ lbs/ton}}$$

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

Potential Emissions based on maximum heat input rate, 8760 hours/year and the minimum heating value of oil from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.1 lb PM/MMBTU
4. Equivalent Allowable Emissions: 41.9 lb/hour 183.57 tons/year
5. Method of Compliance (limit to 60 characters): Test required only if unit operation on oil, exclusive of startup, exceeds 400 hours/yr.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Rule: 62-296.405(1)(b)

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 4 of 7

1. Pollutant Emitted: CO

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 16 lb/hour 72 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 40 lbs CO / MMCF gas
   Reference: EPA AP-42 Table 1.4-2

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing

$$\frac{40 \text{ lbs CO/MMCF gas} \times 3575 \text{ MMCF gas/yr}}{2000 \text{ lbs/ton}}$$

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

Potential Emissions based on maximum heat input rate and minimum heating value of gas from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 5 of 7

1. Pollutant Emitted: VOC

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 2 lb/hour 10 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 0.76 lbs VOC / 1000 gal Oil
   Reference: EPA AP-42 Table 1.3-4

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing

$$\frac{0.76 \text{ lbs VOC/1000 gal Oil} \times 25051 \text{ 1000 gal Oil/yr}}{2000 \text{ lbs/ton}}$$

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

Potential Emissions based on maximum heat input rate, 8760 hours/year and the minimum heating value of oil from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 6 of 7

1. Pollutant Emitted: PM10

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 49 lb/hour 213 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: {(9.19 x%S) + 3.22 lbs PM10/1000 gal Oil} x Particle Size Mult (0.71)
   Reference: EPA AP-42 Table 1.3-5

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing
   $$\frac{[\{(9.19 \times 2.25\%S) + 3.22 \text{ lbs PM10/1000 gal Oil}\} \times 25051 \text{ 1000 gal Oil/yr}] \times 0.71}{2000 \text{ lbs/ton}}$$

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

Potential Emissions based on maximum heat input rate, 8760 hours/year and the minimum heating value of oil from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 7 of 7

1. Pollutant Emitted: HAPS

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 0.8 lb/hour 3.59 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: See Attachment M for HAPs Emissions Calculations
   Reference:

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing
   See Attachment M for HAPs Emissions Calculations

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

HAPS: Formaldehyde (>1 tpy), Nickel (>1 tpy), Hexane, Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cobalt, Manganese, & Selenium.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitation: Visible Emissions Limitation ___1___ of ___2___

1. Visible Emissions Subtype: VE
2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: 40 % Maximum Period of Excess Opacity Allowed: 2 min/hour
4. Method of Compliance: Compliance Test Method 9 conducted annually. Testing should be conducted using the fuel and/or process input which are expected to result in the highest emissions and within ten (10%) of the rated capacity of the source.
5. Visible Emissions Comment (limit to 200 characters): 62-296.405(1)(a)

Visible Emissions Limitation: Visible Emissions Limitation ___2___ of ___2___

1. Visible Emissions Subtype: VES
2. Basis for Allowable Opacity: [x] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: 60 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: 4-6 min/3 hours min/hour
4. Method of Compliance: Compliance Test Method 9 conducted annually
5. Visible Emissions Comment (limit to 200 characters): Rule: 62-210.700(3)

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System: Continuous Monitor __1___ of __1___

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [X] 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): Rule 62-214 F.A.C. Unit is an extended shutdown unit for which continuous monitoring system has not been installed.	

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):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [X] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[X] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code:			
PM	[ ] C	[ ] E	[ ] Unknown
SO2	[ ] C	[ ] E	[ ] Unknown
NO2	[ ] C	[ ] E	[ ] Unknown
4. Baseline Emissions:			
PM		lb/hour	tons/year
SO2		lb/hour	tons/year
NO2			tons/year
5. PSD Comment (limit to 200 characters): Commission year is 1970			

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

Supplemental Requirements for All Applications

1. Process Flow Diagram [x] Attached, Document ID:_Att C._ [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [x] Attached, Document ID:_Att. D_ [ ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [x] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [x] Attached, Document ID:_Att. E__ [ ] 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
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [x] Not Applicable
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:_____ [x] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [x] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [x] Not Applicable

11. Alternative Modes of Operation (Emissions Trading)
[x] Attached, Document ID:_Att. H_ [ ] Not Applicable

12. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [ ] Not Applicable

13. Compliance Assurance Monitoring Plan
[x] Attached, Document ID:_Att. K_ [ ] Not Applicable

14. Acid Rain Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:_____**(Unit is temporarily shutdown; form to follow after restart of unit)**

[ ] 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:_____

[X] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. 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.

2. Single Process, Group of Processes, or Fugitive Only? 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.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Gas Turbine #1 (GT-1)**		
2. Emissions Unit Identification Number:[ ]No Corresponding ID [ ] Unknown 006		
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [ ] Yes [x] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters):		

Emissions Unit Control Equipment

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Details

1. Initial Startup Date: 1976	
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer: Model Number:	
4. Generator Nameplate Rating: 30 MW	
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:	 °F seconds °F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate: 435		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters):		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule:			
	hours/day		days/week
	weeks/year	8760 **Each**	hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

Federal: None	
State: 62-4, F.A.C.	**Permitting Requirements**
62-210, F.A.C.	**Stationary Sources - General Requirements**
62-213, F.A.C.	**Title V Permitting Requirements**
62-275.410, F.A.C.	**Air Quality Areas - Ozone Nonattainment**
62-296.310(2), F.A.C.	**Stationary Sources - Visible Emissions**
62-296.570 (4)(b)(5)	**NOx RACT Emission Limitations**
62-297.410(9), F.A.C.	**Stationary Sources - EPA Method 9 for Visible Emissions Testing**
Title V Core List (3/25/96)	**Presumptively Applicable (Federal & State)**
Local: None	

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: GT-1 Gas Turbine #1
2. Emission Point Type Code: [X] 1 [ ] 2 [ ] 3 [ ] 4
3. Descriptions of Emissions 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: [ ] D [ ] F [ ] H [ ] P [ ] R [X] V [ ] W
6. Stack Height: 46 feet
7. Exit Diameter: 16 feet
8. Exit Temperature: 837 °F

9. Actual Volumetric Flow Rate: 983593		acfm
10. Percent Water Vapor :		%
11. Maximum Dry Standard Flow Rate:		dscfm
12. Nonstack Emission Point Height:		feet
13. Emission Point UTM Coordinates: Zone: 17	East (km): 592.8	North (km): 2943.7
14. Emission Point Comment (limit to 200 characters):		

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment __1___ of __1___

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Combustion Turbine Using #2 Fuel Oil	
2. Source Classification Code (SCC): 20100101	
3. SCC Units: 1000 gallons	
4. Maximum Hourly Rate: 3.1	5. Maximum Annual Rate: 27230
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0.23	8. Maximum Percent Ash: 0.0033
9. Million Btu per SCC Unit: 139.3	
10. Segment Comment (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO_2	---	---	NS
No_x	---	---	EL
PM	---	---	NS
CO	---	---	NS
VOC	---	---	NS
PM10	---	---	NS
H095	---	---	NS
H133	---	---	NS
H017	---	---	NS
H014	---	---	NS
H015	---	---	NS
H027	---	---	NS
H046	---	---	NS
H113	---	---	NS
H162	---	---	NS
H148	---	---	NS
Pb	---	---	NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 1 of 7

1. Pollutant Emitted: SO2

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 157 lb/hour 686 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 7.2 *%S * 2 SO2/1000 gal Oil
   Reference: Stoicheometric Calculation per Raisa Neginsky of DEP

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Based on Oil Firing

$$\frac{7.2 \text{ lbs Oil/gal Oil} \times 27229576 \text{ gal Oil/yr} \times 0.0035 \text{ S/lb Oil} \times 2 \text{ lb SO2/ 1 lb S}}{2000 \text{ lbs/ton}}$$

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

Potential Emissions based on maximum heat input rate, 8760 hours/year, maximum sulfur content and the minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 2 of 7

1. Pollutant Emitted: NOx

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 390 lb/hour 1707 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 0.9 lbs NOx / MMBTU
   Reference: NOx RACT RULE
   Will be met as demonstrated by stack test @ Tom G. Smith Power Plant (7/93) See attachment L, Stack Test Data

7. Emissions Method Code:
   [ ] 0 [X] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing
   0.9 lbs NOx/MMBTU Oil x 27230 1000 gallons/yr x 139.3 MMBTU Oil / 1000 gal
   ---
   2000 lbs/ton

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

   Potential Emissions based on maximum heat input rate, 8760 hours/year, and the minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.9 lb NOx / MMBTU
4. Equivalent Allowable Emissions: 389.7 lb/hour 1706.89 tons/year
5. Method of Compliance (limit to 60 characters): EPA Test Method 7E Conducted annually
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 3 of 7

1. Pollutant Emitted: PM

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 26 lb/hour 116 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 0.038+ 0.023 lb PM/MMBTU Oil
   Reference: EPA AP-42 Table 3.1-1

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing
   (0.038+0.023) lb PM/MMBTU Oil x 27230 1000 gal Oil/yr x 139.3 MMBTU/1000 gal Oil
   ---
   2000 lbs/ton

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

Potential Emissions based on maximum heat input rate, 8760 hours/year, and the minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 4 of 7

1. Pollutant Emitted: CO

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 21 lb/hour 91 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 0.048 lbs CO / MMBTU Oil
   Reference: EPA AP-42 Table 3.1-1

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing
   0.048 lb CO/MMGBTU Oil x 27230 1000 gal Oil/yr x 139.3 MMBTU/1000 gal Oil
   ---
   2000 lbs/ton

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

Potential Emissions based on maximum heat input rate, 8760 hours/year, and the minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 5 of 7

1. Pollutant Emitted: VOC

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 7 lb/hour 32 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 0.017 lbs VOC / MMBTU Oil
   Reference: EPA AP-42 Table 3.1-1

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing

$$\frac{0.017 \text{ lb VOC/MMBTU Oil} \times 27230 \text{ 1000 gal Oil/yr} \times 139.3 \text{ MMBTU/1000 gal Oil}}{2000 \text{ lbs/ton}}$$

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

Potential Emissions based on maximum heat input rate, 8760 hours/year, and the minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 6 of 7

1. Pollutant Emitted: PM10

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 13 lb/hour 56 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: (0.038 + 0.023) * 0.48 lb PM10/MMBTU Oil
   Reference: EPA AP-42 Table 3.1-1

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing

$$\frac{(0.038 + 0.023) \text{ lb PM10/MMBTU Oil} \times 27230 \text{ 1000 gal Oil/yr} \times 139.3 \text{ MMBTU/ 1000 gal Oil} * 0.48}{2000 \text{ lbs/ton}}$$

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):
Potential Emissions based on maximum heat input rate, 8760 hours/year, and the minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 7 of 7

1. Pollutant Emitted: HAPS

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 1.3 lb/hour 5.76 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: See Attachment M for HAPs Emissions Calculations
   Reference:

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing
   See Attachment M for HAPs Emissions Calculations

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

HAPS: Formaldehyde (>1 tpy), Nickel (>1 tpy), Benzene, Antimony, Arsenic, Cadmium, Chromium, Cobalt, Manganese, Selenium & Phosphorus.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitation: Visible Emissions Limitation ___1___ of ___1___

1. Visible Emissions Subtype: VE
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: Compliance Test Method 9 conducted annually. Testing conducted using the fuel and/or process input which are expected to result in the highest emissions and within ten (10%) of the rated capacity of the source.
5. Visible Emissions Comment (limit to 200 characters): 62-296.310(2)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:
2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4. Method of Compliance:
5. Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System: Continuous Monitor __1___ of __1___

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):	

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):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

   [X] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[X] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code:			
PM	[ ] C	[ ] E	[ ] Unknown
SO2	[ ] C	[ ] E	[ ] Unknown
NO2	[ ] C	[ ] E	[ ] Unknown
4. Baseline Emissions:			
PM		lb/hour	tons/year
SO2		lb/hour	tons/year
NO2			tons/year
5. PSD Comment (limit to 200 characters): Commission year is 1976			

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

Supplemental Requirements for All Applications

1. Process Flow Diagram [x] Attached, Document ID:_Att C._ [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [x] Attached, Document ID:_Att. D_ [ ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [x] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [x] Attached, Document ID:_Att. E__ [ ] 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
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [x] Not Applicable
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:_____ [x] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [x] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

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:_____ [ ] Not Applicable

13. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [x] Not Applicable

14. Acid Rain 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:_____

[x] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. 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.

2. Single Process, Group of Processes, or Fugitive Only? 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.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **CC1 Combined Cycle Unit Combustion Turbine #2/Steam Unit #5 (GT-2/S-5)**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown 011		
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [ ] Yes [x] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters):		

Emissions Unit Control Equipment

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Details

1. Initial Startup Date: 1978		
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer: Model Number:		
4. Generator Nameplate Rating: 20	MW	
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:		 °F seconds °F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate: 317.6		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters):		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule:		
hours/day		days/week
weeks/year	8760 **Each**	hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

Federal: None	
State: 62-4, F.A.C.	**Permitting Requirements**
62-210, F.A.C.	**Stationary Sources - General Requirements**
62-213, F.A.C.	**Title V Permitting Requirements**
62-275.410, F.A.C.	**Air Quality Areas - Ozone Nonattainment**
62-296.570 (4)(b)(5)	**NOx RACT Emission Limitations**
Section 403.501 Florida Statutes	**Power Plant Siting Act (PPSA)**
Title V Core List (3/25/96)	**Presumptively Applicable (Federal & State)**
Local: None	

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: CC1 Combined Cycle Unit (GT-2/S-5)
2. Emission Point Type Code: [X] 1 [ ] 2 [ ] 3 [ ] 4
3. Descriptions of Emissions 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: [ ] D [ ] F [ ] H [ ] P [ ] R [X] V [ ] W
6. Stack Height: 75 feet
7. Exit Diameter: 10 feet
8. Exit Temperature: 404 (oil); 406 (gas) °F

9. Actual Volumetric Flow Rate: 412466 (oil); 429223 (gas)	acfm
10. Percent Water Vapor :	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates: Zone: 17 East (km): 592.8 North (km): 2943.7	
14. Emission Point Comment (limit to 200 characters): By-pass stack information Pollutant amount and type unchanged Stack Height = 49 feet Exit Dimensions = 12 feet 7 inches X 10 feet 6.5 inches Maximum Exit Temperature = 1,020 °F Maximum Actual Volumetric Flowrate = 733,562 [gas] acfm Discharge Type= Vertical	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment __1___ of __2___

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): CC1 Combined Cycle Unit (GT-2/S-5) Using #2 Fuel Oil	
2. Source Classification Code (SCC): 20100101	
3. SCC Units: 1000 gallons	
4. Maximum Hourly Rate: 2.28	5. Maximum Annual Rate: 19973
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0.35	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 139.3	
10. Segment Comment (limit to 200 characters):	

Segment Description and Rate: Segment __2___ of __2___

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):CC1 Combined Cycle Unit (GT-2/S-5) Using Natural Gas	
2. Source Classification Code (SCC): 20100201	
3. SCC Units: MMCF	
4. Maximum Hourly Rate: 0.31	5. Maximum Annual Rate: 2709
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 1027	
10. Segment Comment (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO_2	--	--	EL
NO_X	--	--	EL
PM	--	--	EL
CO	--	--	NS
VOC	--	--	NS
PM10	--	--	NS
H095	--	--	NS
H133	--	--	NS
H017	--	--	NS
H014	--	--	NS
H015	--	--	NS
H027	--	--	NS
H046	--	--	NS
H047	--	--	NS
H113	--	--	NS
H162	--	--	NS
H148	--	--	NS
Pb	--	--	NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 1 of 7

1. Pollutant Emitted: SO2

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 115 lb/hour 503 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 7.2 *%S * 2 SO2/1000 gal Oil
   Reference: Stoicheometric Calculation per Raisa Neginsky of DEP

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Based on Oil Firing

$$\frac{7.2 \text{ lbs Oil/gas} \times 19972548 \text{ gal Oil/yr} \times 0.0035 \text{ S/lb Oil} \times 2 \text{ lb SO2/ 1 lb S}}{2000 \text{ lbs/ton}}$$

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

Potential Emissions based on maximum heat input rate, 8760 hours/year, maximum sulfur content, and the minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: Other
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 2.475 lb SO2/MMBTU
4. Equivalent Allowable Emissions: 786.1 lb/hour 3442.94 tons/year
5. Method of Compliance (limit to 60 characters: Monthly fuel analysis reports submitted quarterly. SO2 emissions will be calculated stoichiometrically.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Power Plant Siting Act Specific Conditions I.1

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 2 of 7

1. Pollutant Emitted: NOx

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 286 lb/hour 1252 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 0.9 lbs NOx / MMBTU (oil)
   Reference: NOx RACT RULE
   Will be met as demonstrated by stack test @ Tom G. Smith Power Plant (7/93) See attachment L, Stack Test Data

7. Emissions Method Code:
   [ ] 0 [X] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing
   0.9 lbs NOx/MMBTU Oil x 19973 1000 gallons/yr x 139.3 MMBTU Oil / 1000 gal
   ---
   2000 lbs/ton

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

   Potential emissions based on maximum heat input rate, 8760 hours, minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.9 lb NOx / MMBTU
4. Equivalent Allowable Emissions: 285.8 lb/hour 1251.98 tons/year
5. Method of Compliance (limit to 60 characters): EPA Test Method 7E Conducted annually
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 3 of 7

1. Pollutant Emitted: PM

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 19 lb/hour 85 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: (0.038+ 0.023) lb PM/MMBTU Oil
   Reference: EPA AP-42 Table 3.1-1

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing
   (0.038+0.023) lb PM/MMBTU Oil x 19973 1000 gal Oil/yr x 139.3 MMBTU/1000 gal Oil
   ---
   2000 lbs/ton

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

   Potential emissions based on maximum heat input rate, 8760 hours/year and minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.1 lb PM/MMBTU
4. Equivalent Allowable Emissions: 31.8 lb/hour 139.11 tons/year
5. Method of Compliance (limit to 60 characters): Test required only if unit operation on oil, exclusive of startup, exceeds 400 hours/yr.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Rule: 62-296.405 (1)(b)

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 4 of 7

1. Pollutant Emitted: CO

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 35 lb/hour 153 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 0.011 lbs CO / MMBTU Gas
   Reference: EPA AP-42 Table 3.1-1

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing
   0.11 lb CO/MMGBTU Gas x 2709 MMCF Gas/yr x 1027.5 MMBTU/MMCF Gasl
   ---
   2000 lbs/ton

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

Potential emissions based on maximum heat input rate, 8760 hours/year, and the minimum heating value of natural gas reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 5 of 7

1. Pollutant Emitted: VOC

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 1 lb/hour 4 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: 0.003 lbs VOC / MMBTU Oil
   Reference: Stack Test @ Tom G. Smith Power Plant (7/93) See Attachment L Stack Test Data

7. Emissions Method Code:
   [ ] 0 [x] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing
   0.003 lb VOC/MMBTU Oil x 19973 1000 gal Oil/yr x 139.3 MMBTU/1000 gal Oil
   ---
   2000 lbs/ton

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

Potential emissions based on maximum heat input rate, 8760 hours/year and minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 6 of 7

1. Pollutant Emitted: PM10

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 9 lb/hour 41 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

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

6. Emission Factor: (0.038 + 0.023) * 0.48 lb PM10/MMBTU Oil
   Reference: EPA AP-42 Table 3.1-1

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing

$$\frac{(0.038 + 0.023) \text{ lb PM10/MMBTU Oil} \times 19973 \text{ 1000 gal Oil/yr} \times 139.3 \text{ MMBTU/ 1000 gal Oil} * 0.48}{2000 \text{ lbs/ton}}$$

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

Potential emissions based on maximum heat input rate, 8760 hours/year and minimum heating value of oil reported from 1992-1995.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information: 7 of 7

1. Pollutant Emitted: HAPS
2. Total Percent Efficiency of Control: %
3. Potential Emissions: 1.80 lb/hour 7.89 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year
6. Emission Factor: See Attachment M for HAPs Emissions Calculations Reference:
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): Potential Emissions Bases on Oil Firing See Attachment M for HAPs Emissions Calculations
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): HAPS: Formaldehyde (>1 tpy), Nickel (>1 tpy), Benzene, Antimony, Arsenic, Cadmium, Chromium, Cobalt, Manganese, Selenium & Phosphorus.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitation: Visible Emissions Limitation ___1___ of ___1___

1. Visible Emissions Subtype: VE
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: Compliance Test Method 9 conducted annually. Testing conducted using the fuel and/or process input which are expected to result in the highest emissions and within ten (10%) of the rated capacity of the source.
5. Visible Emissions Comment (limit to 200 characters): 62-296.310(2)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:
2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4. Method of Compliance:
5. Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

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):	

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):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [X] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[X] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code:			
PM	[ ] C	[ ] E	[ ] Unknown
SO2	[ ] C	[ ] E	[ ] Unknown
NO2	[ ] C	[ ] E	[ ] Unknown
4. Baseline Emissions:			
PM		lb/hour	tons/year
SO2		lb/hour	tons/year
NO2			tons/year
5. PSD Comment (limit to 200 characters): Commission year is 1978			

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

Supplemental Requirements for All Applications

1. Process Flow Diagram [x] Attached, Document ID:_Att C._ [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [x] Attached, Document ID:_Att. D_ [ ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [x] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [x] Attached, Document ID:_Att. E__ [ ] 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
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [x] Not Applicable
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:_____ [x] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [x] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

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. Compliance Assurance Monitoring Plan
[x] Attached, Document ID:_Att. K_ [ ] Not Applicable

14. Acid Rain 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:_____

[x] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. 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.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

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

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

[X] 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.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Fuel Oil Storage Tanks 3, 4, 5, 6, 5000 and 950 gallon Lube Oil tanks, Fuel Oil Fittings and Pumps leaks** **Tank 3 is fixed roof 26,634 gallons capacity, constructed in 04/51** **Tank 4 is fixed roof 26,634 gallons capacity, constructed in 04/51** **Tank 5 is fixed roof 15,600 gallons capacity, constructed in 04/51** **Tank 6 is fixed roof 15,600 gallons capacity, constructed in 04/51** **5000 gallons lube oil tank constructed in 1978** **950 gallons lube oil tank constructed in 1978** **Fuel Oil fittings and pumps leaks**		
2. Emissions Unit Identification Number:[ ]No Corresponding ID [x] Unknown		
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [ ] Yes [x] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters):		

Emissions Unit Control Equipment

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

Federal: None	
State: 62-213.420(3) F.A.C.	**Title V reportable quantities of all known and suspected emissions sources**
62-296.320, F.A.C.	**General Pollutant Emissions Limiting Standards**
Title V Core List (3/25/96)	**Presumptively Applicable (Federal & State)**
Local: None	

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: T-3, T-4, T-5, T-6, Overhaul LO (5000 gallons), Disposa LO (950 gallons)
2. Emission Point Type Code: [ ] 1 [ ] 2 [x] 3 [ ] 4
3. Descriptions of Emissions 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: [ ] D [ ] F [ ] H [x] P [ ] R [ ] V [ ] W
6. Stack Height: feet
7. Exit Diameter: feet
8. Exit Temperature: 77 °F

9. Actual Volumetric Flow Rate:	acfm
10. Percent Water Vapor :	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height: 11.33	feet
13. Emission Point UTM Coordinates: Zone: 17 East (km): 592.8 North (km): 2943.7	
14. Emission Point Comment (limit to 200 characters): The VOC potential emissions from tanks 3 and 4 are 93 lb/yr (each tank). The VOC potential emissions from tanks 5 and 6 are 77 lb/yr (each tank). The lube oil tanks potential emissions are less than 0.05 lb/yr. The parameters from tank 3 were used to define this emission unit.	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment __1___ of __1___

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):
Working loss and breathing loss from fixed roof storage tanks.

2. Source Classification Code (SCC):
(See Comments Field)

3. SCC Units: 1000 gallons throughput

4. Maximum Hourly Rate:	5. Maximum Annual Rate:

6. Estimated Annual Activity Factor: See Segment Comment

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:

9. Million Btu per SCC Unit:

10. Segment Comment (limit to 200 characters):
40301021 Distillate Fuel #2 Fixed Roof Working Loss
40301019 Distillate Fuel #2 Fixed Roof Breathing Loss

Tank Capacities:
Tank 3 and 4 - 26,634 gallons each
Tank 5 and 6 - 15,600 gallons each

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (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 Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC	--	--	NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: VOC

2. Total Percent Efficiency of Control: %

3. Potential Emissions: lb/hour tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

5. Range of Estimated Fugitive/Other Emissions:
   [ ] 1 [ ] 2 [ ] 3 __0_____ to ___1____ tons/year

6. Emission Factor: EPA Tanks Program
   Reference: AP-42

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [x] 3 [ ] 4 [ ] 5

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

   See Attached Printout Attachment F

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):
   Tank potential emissions are based on the Fuel throughput required to operate all combustion units on fuel oil at maximum capacity for 8,760 hours/year.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. 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.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

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

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

[X] 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.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Fuel Oil Storage Tanks 10 and 11** **Tank 10 is fixed roof 20,134 gallons capacity, constructed in 05/92** **Tank 11 is fixed roof 20,134 gallons capacity, constructed in 05/92**		
2. Emissions Unit Identification Number:[ ]No Corresponding ID [x] Unknown		
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [ ] Yes [x] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters):		

Emissions Unit Control Equipment

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

Federal: 40 CFR 60 Subpart Kb	Volatile Organic Liquid Storage Vessel with capacity greater than or equal to 10,568 gallons constructed after 7/23/84
State: 62-213.420(3) F.A.C.	Title V reportable quantities of all known and suspected emissions sources
62-296.320, F.A.C.	General Pollutant Emissions Limiting Standards
Title V Core List (3/25/96)	Presumptively Applicable (Federal & State)
Local: None	

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: T-10, T-11
2. Emission Point Type Code: [ ] 1 [ ] 2 [X] 3 [ ] 4
3. Descriptions of Emissions 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: [ ] D [ ] F [ ] H [X] P [ ] R [ ] V [ ] W
6. Stack Height: feet
7. Exit Diameter: feet
8. Exit Temperature: 77 °F

9. Actual Volumetric Flow Rate:	acfm
10. Percent Water Vapor :	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height: 31	feet
13. Emission Point UTM Coordinates: Zone: 17 East (km): 592.8 North (km): 2943.7	
14. Emission Point Comment (limit to 200 characters): The VOC potential emissions from tanks 10 and 11 are 63 lb/yr each. Tanks 10 and 11 are identical.	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment __1___ of __1___

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Working loss and breathing loss from fixed roof storage tanks.
2. Source Classification Code (SCC): (See Comments Section)
3. SCC Units: 1000 gallons throughput

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor: 20,134 gallons each	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:

9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): 40301021 Distillate Fuel #2 Fixed Roof Working Loss 40301019 Distillate Fuel #2 Fixed Roof Breathing Loss

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (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 Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC	---	---	NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: VOC			
2. Total Percent Efficiency of Control:			%
3. Potential Emissions:	lb/hour		tons/year
4. Synthetically Limited? [ ] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3		__0_____ to ___1____	tons/year
6. Emission Factor: EPA Tanks Program Reference: AP-42			
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [x] 3 [ ] 4 [ ] 5			
8. Calculation of Emissions (limit to 600 characters): See Attached Printout Attachment F			
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): Tank potential emissions are based on the Fuel throughput required to operate all combustion units on fuel oil at maximum capacity for 8,760 hours/year.			

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. 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.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

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

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

[X] 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.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Fuel Oil Storage Tanks 8 and 12** **Tank 8 is fixed roof 387,580 gallons capacity, constructed in 01/67** **Tank 12 is fixed roof 140,785 gallons capacity, constructed in 05/92**		
2. Emissions Unit Identification Number:[ ]No Corresponding ID [x] Unknown		
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [ ] Yes [x] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters):		

Emissions Unit Control Equipment

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

Federal: None	
State: 62-213.420(3) F.A.C.	**Title V reportable quantities of all known and suspected emissions sources**
62-296.320, F.A.C.	**General Pollutant Emissions Limiting Standards**
Title V Core List (3/25/96)	**Presumptively Applicable (Federal & State)**
Local: None	

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: T-8, T-12
2. Emission Point Type Code: [ ] 1 [ ] 2 [X] 3 [ ] 4
3. Descriptions of Emissions 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: [ ] D [ ] F [ ] H [X] P [ ] R [ ] V [ ] W
6. Stack Height: feet
7. Exit Diameter: feet
8. Exit Temperature: 77 °F

9. Actual Volumetric Flow Rate:	acfm
10. Percent Water Vapor :	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height: 31	feet
13. Emission Point UTM Coordinates: Zone: 17 East (km): 592.8 North (km): 2943.7	
14. Emission Point Comment (limit to 200 characters): The VOC potential emissions from tank 8 are 12 lb/yr. The VOC potential emissions from tank 12 are 392 lb/yr. The parameters from tank 12 were used to define this emission unit.	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment __1___ of __1___

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Working loss and breathing loss from fixed roof storage tanks.
2. Source Classification Code (SCC): (See Comments Section)
3. SCC Units: 1000 gallons throughput

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor: See Segment Comment	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	

10. Segment Comment (limit to 200 characters):
40301021 Distillate Fuel #2 Fixed Roof Working Loss
40301019 Distillate Fuel #2 Fixed Roof Breathing Loss

Tank Capacities
Tank 8 - 387,580 Gallons #6 Oil
Tank 12 - 140,785 Gallons #2 Oil

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (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 Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC	---	---	NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: VOC

2. Total Percent Efficiency of Control: %

3. Potential Emissions: lb/hour tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

5. Range of Estimated Fugitive/Other Emissions:
   [ ] 1 [ ] 2 [ ] 3 __0_____ to ___1____ tons/year

6. Emission Factor: EPA Tanks Program
   Reference: AP-42

7. Emissions Method Code:
   [ ] 0 [ ] 1 [ ] 2 [x] 3 [ ] 4 [ ] 5

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

   See Attached Printout Attachment F

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):
   Tank potential emissions are based on the Fuel throughput required to operate all combustion units on fuel oil at maximum capacity for 8,760 hours/year.

Allowable Emissions (Pollutant identified on front of page)

A.

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. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

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

ATTACHMENT A

AREA MAP

(In four sections due to the largeness of the map)

0990045-002 (b)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

UNITED STATES
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

LAKE WORTH QUADRANGLE
FLORIDA–PALM BEACH CO.
7.5 MINUTE SERIES (TOPOGRAPHIC-BATHYMETRIC)

City Of Lake Worth Utilities
Power Generation
&
Water Treament Facilities

Mapped by U. S. Coast and Geodetic Survey
and National Ocean Service
Edited and published by the Geological Survey

Control by NOS/NOAA

Planimetry in part by photogrammetric methods from aerial photographs taken 1942 and 1945
Topography by planetable surveys 1944-1945

Bathymetry compiled by the National Ocean Service from tide-coordinated hydrographic surveys. This information is not intended for navigational purposes
Mean low water (dotted) line and mean high water (heavy solid) line compiled by NOS from tide-coordinated aerial photographs
Apparent shoreline (outer edge of vegetation) shown by light solid line

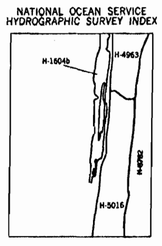
Polyconic projection. 1927 North American Datum
10,000-foot grid ticks based on Florida coordinate system, east zone
1000-meter Universal Transverse Mercator grid ticks, zone 18 shown in blue
To place on the predicted North American Datum 1983, move the projection lines 36 meters south and 23 meters west as shown by dashed corner ticks

Red tint indicates areas in which only landmark buildings are shown

Revisions shown in purple and woodland compiled by the Geological Survey in cooperation with State of Florida agencies from aerial photographs taken 1980 and other sources. This information not field checked. Map edited 1983

Purple tint indicates extension of urban areas

NATIONAL OCEAN SERVICE
HYDROGRAPHIC SURVEY INDEX



HYDROGRAPHIC SURVEY INFORMATION

SURVEY NUMBER	SURVEY DATE	SURVEY SCALE	SURVEY LINE SPACING (NAUT. MILES)
H-16049	1984	1:20,000	10-25
H-4963	1939	1:20,000	03-10
H-5016	1939	1:20,000	02-25
H-8762	1944	1:100,000	40-50

NOS CHART 11467 JULY 28, 1979 1:40,000

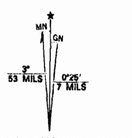
SCALE 1:24000

1 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 5 0 1 KILOMETER

CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
BATHYMETRIC CONTOUR INTERVAL 1 METER WITH SUPPLEMENTARY 0.5 METER CONTOURS-DATUM IS MEAN LOW WATER
THE RELATIONSHIP BETWEEN THE TWO DATUMS IS VARIABLE

BASE MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
BATHYMETRIC SURVEY DATA COMPLIES WITH INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO) SPECIAL PUBLICATION 44 ACCURACY STANDARDS AND/OR STANDARDS USED AT THE DATE OF THE SURVEY
FOR SALE BY U. S. GEOLOGICAL SURVEY
DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
AND NATIONAL OCEAN SERVICE, ROCKVILLE, MARYLAND 20852
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION



UTM GRID AND 1986 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

ROAD CLASSIFICATION

Primary highway, hard surface — Light-duty road, hard or improved surface
Secondary highway, hard surface — Unimproved road
( ) Interstate Route ( ) U S Route ( ) State Route
[ ] County Route

DEPTH GRADIENTS

Meters	Feet
Exposed at low tide	
0	0
5	16.4
10	32.8
15	49.2
20	65.6
25	82.0
50	164.0

Maximum depth

LAKE WORTH, FLA.
26080-E1-TB-024
1945
PHOTOREVISED 1983
BATHYMETRY ADDED 1986
DMA 4937 II SE–SERIES V847

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1987

ATTACHMENT B

FACILITY PLOT PLAN

NOTE:

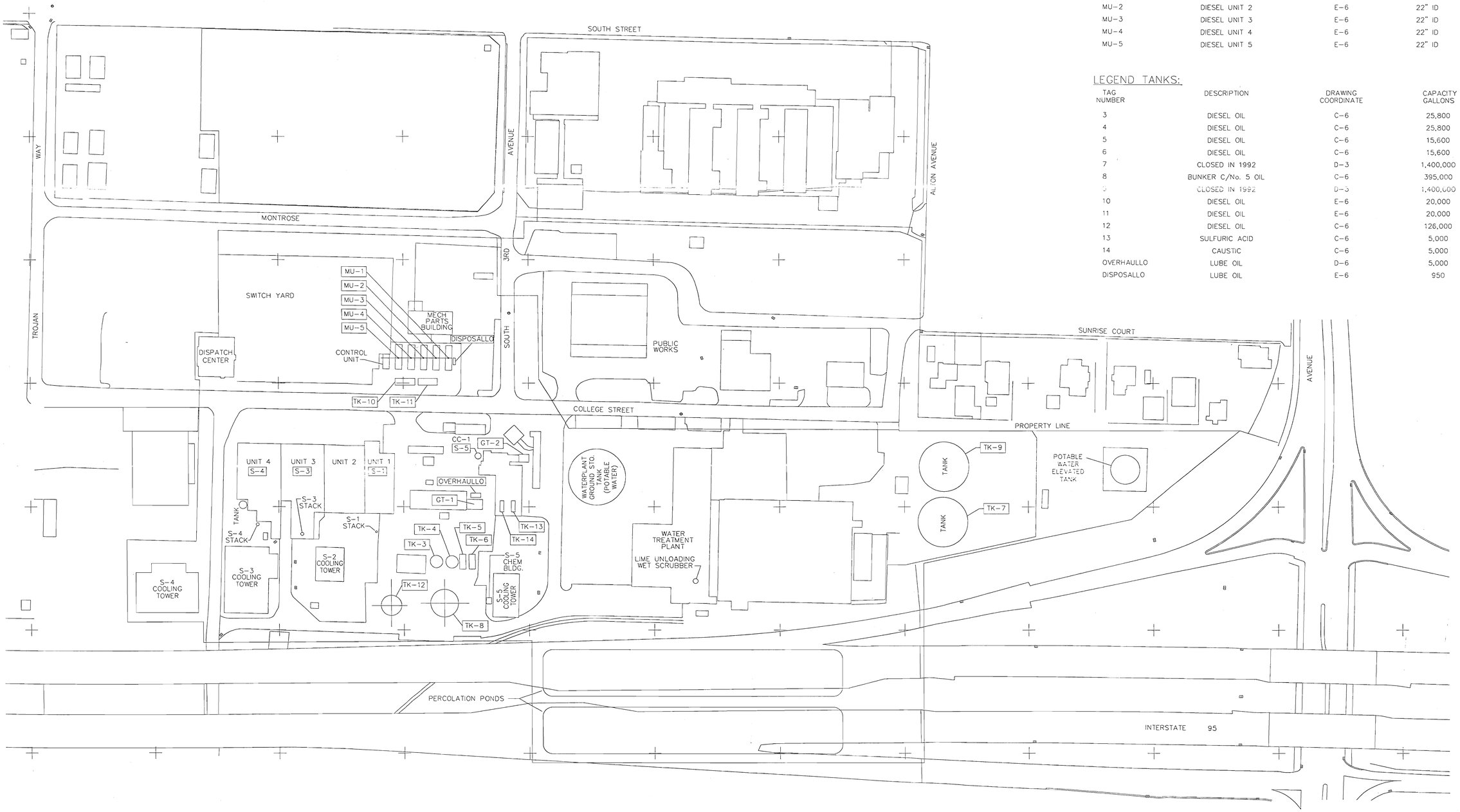
GENERAL PLANT LOCATION LATTITUDE 26°.36'.45"
LONGITUDE 80°.04'.04"

LEGEND STACKS:

TAG NUMBER	DESCRIPTION	DRAWING COORDINATE	DIAMETER	HEIGHT
S-1	STEAM GENERATOR No. 1	C-6	60" ID	60'-0"
S-3	STEAM GENERATOR No. 3	C-7	84" ID	113'-0"
S-4	STEAM GENERATOR No. 4	C-7	90" ID	115'-0"
GT-1	GAS TURBINE No. 1	C-6	10'-8" X 18'-9"	46'-0"
CC-1 (GT-2/S-5)	COMBINED CYCLE GAS TURBINE 2 AND STEAM UNIT 5	C-6	GT-2 BYPASS S-5 MAIN 20" ID	75'-0"
MU-1	DIESEL UNIT 1	E-6	22" ID	12'-2 1/2"
MU-2	DIESEL UNIT 2	E-6	22" ID	12'-2 1/2"
MU-3	DIESEL UNIT 3	E-6	22" ID	12'-2 1/2"
MU-4	DIESEL UNIT 4	E-6	22" ID	12'-2 1/2"
MU-5	DIESEL UNIT 5	E-6	22" ID	12'-2 1/2"

LEGEND TANKS:

TAG NUMBER	DESCRIPTION	DRAWING COORDINATE	CAPACITY GALLONS
3	DIESEL OIL	C-6	25,800
4	DIESEL OIL	C-6	25,800
5	DIESEL OIL	C-6	15,600
6	DIESEL OIL	C-6	15,600
7	CLOSED IN 1992	D-3	1,400,000
8	BUNKER C/No. 5 OIL	C-6	395,000
9	CLOSED IN 1992	D-3	1,400,000
10	DIESEL OIL	E-6	20,000
11	DIESEL OIL	E-6	20,000
12	DIESEL OIL	C-6	126,000
13	SULFURIC ACID	C-6	5,000
14	CAUSTIC	C-6	5,000
OVERHAULLO	LUBE OIL	D-6	5,000
DISPOSALLO	LUBE OIL	E-6	950



0 60 120

SCALE: 1" = 60'-0"

CITY OF LAKE WORTH UTILITIES
LAKE WORTH , FLORIDA

TOM G. SMITH
TITLE V EMISSION
PLOT PLAN

FIGURE NO. 1

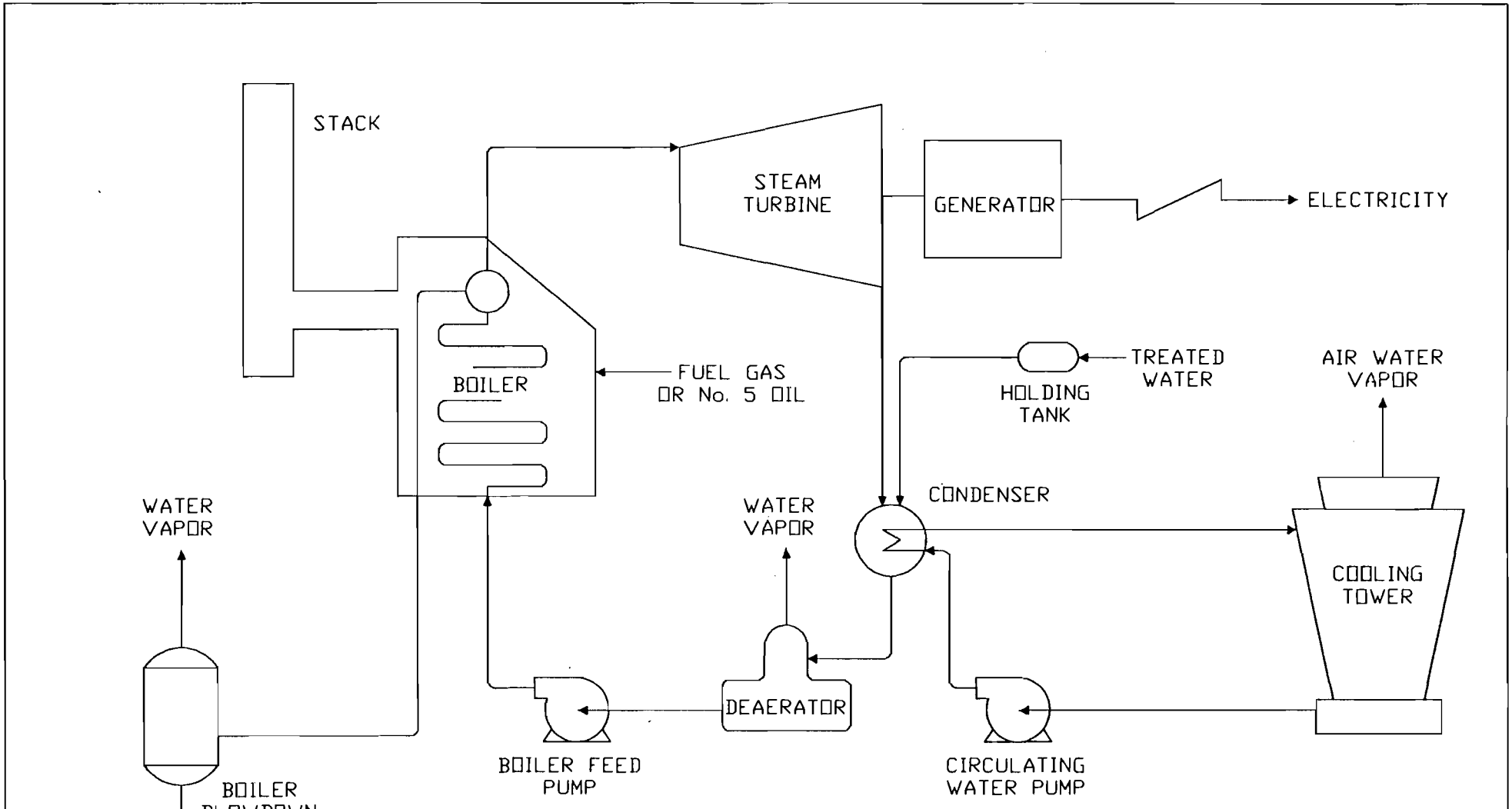
SCALE 1" = 60'

Raytheon
Engineers & Constructors

8442002 FIGURE1.DWG

ATTACHMENT C

PROCESS FLOW DIAGRAMS

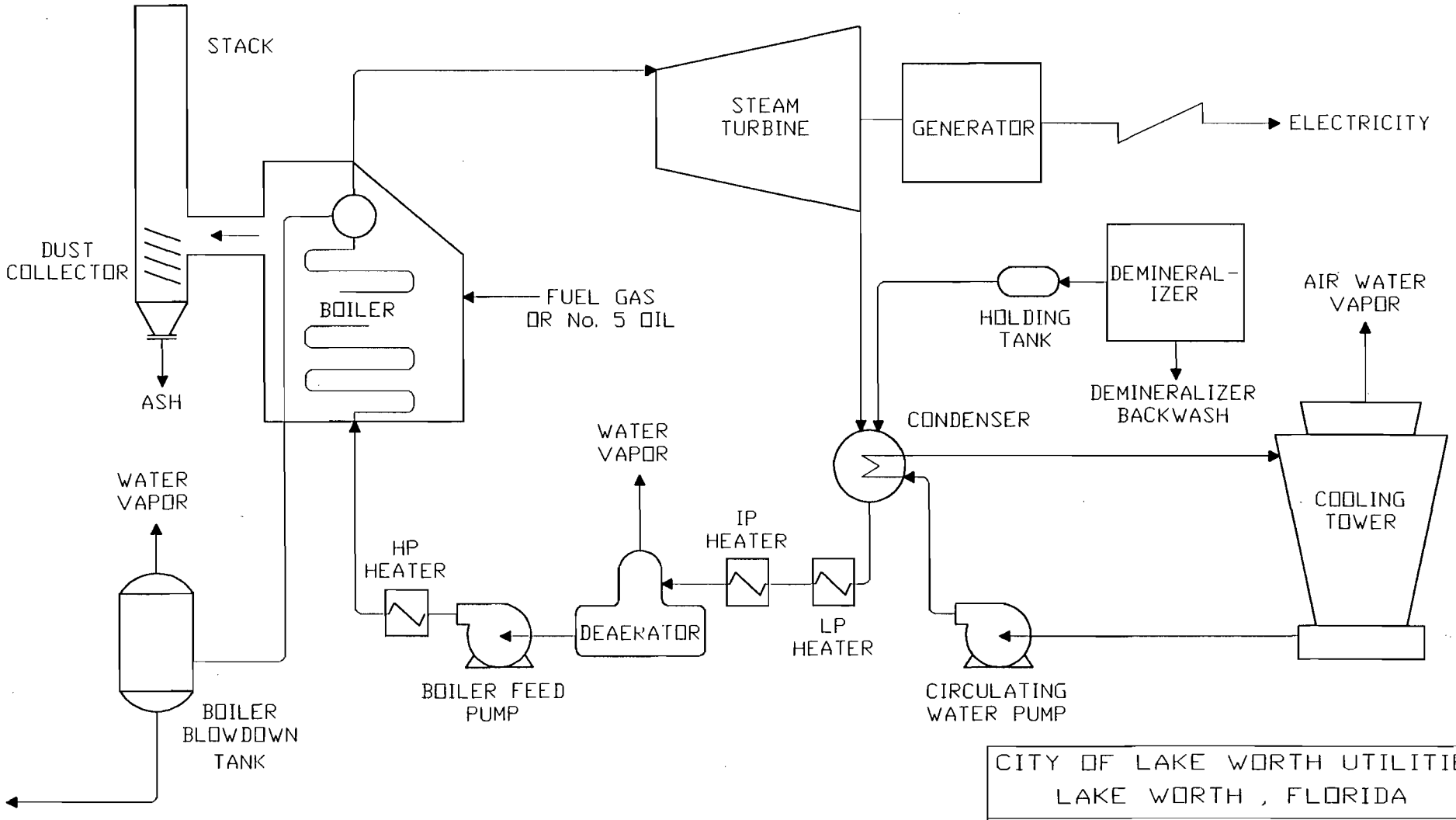


CITY OF LAKE WORTH UTILITIES
LAKE WORTH , FLORIDA

TOM G. SMITH POWER PLANT
TITLE V EMISSIONS S-1
UNIT 1 FLOW DIAGRAM

Raytheon
Engineers & Constructors

FIGURE No. 2



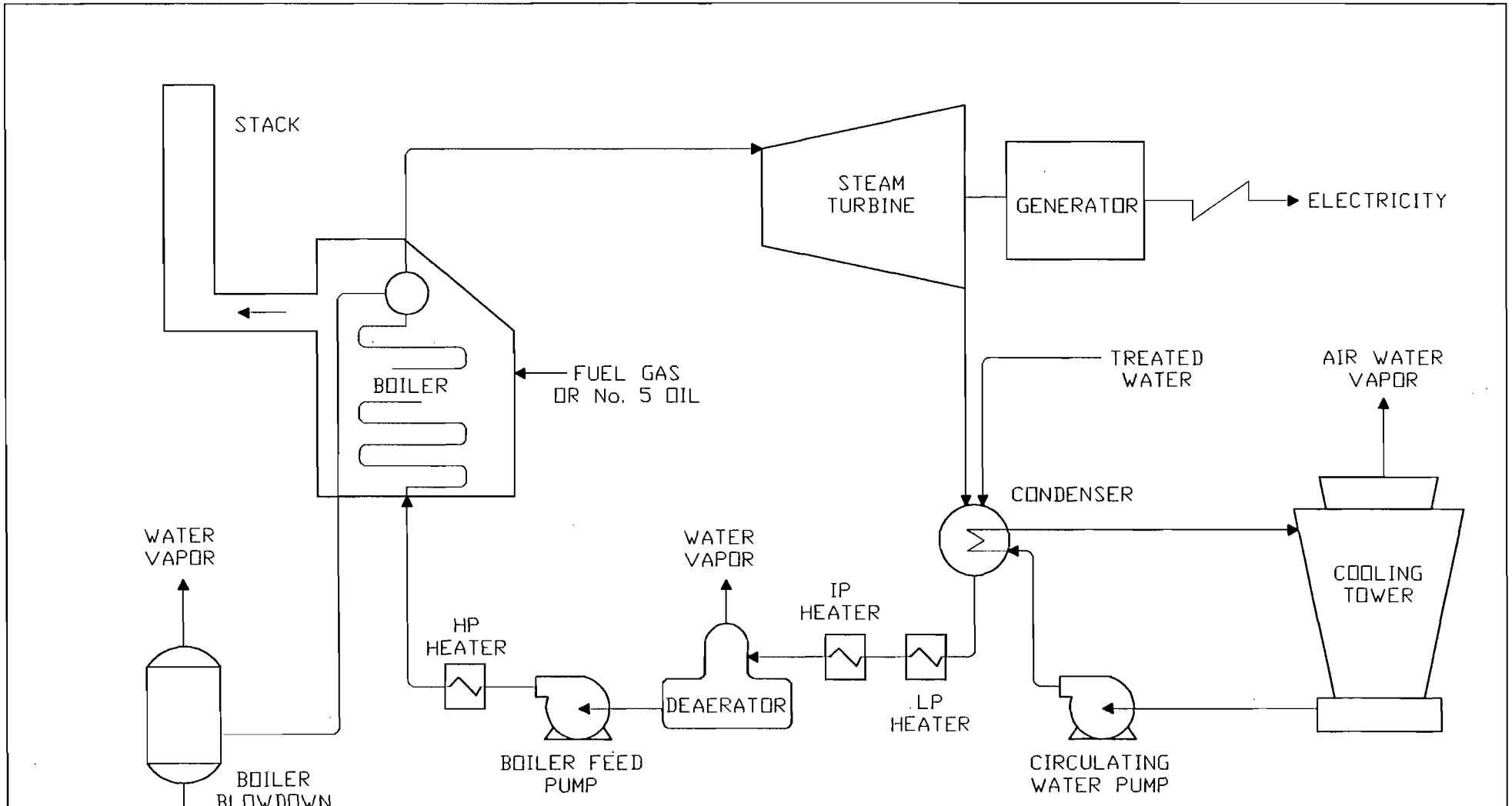
CITY OF LAKE WORTH UTILITIES
LAKE WORTH , FLORIDA

TOM G. SMITH POWER PLANT
TITLE V EMISSIONS S-3
UNIT 3 FLOW DIAGRAM

FIGURE No. 3

Raytheon
Engineers & Constructors

8442002 FIGURE3.DWG



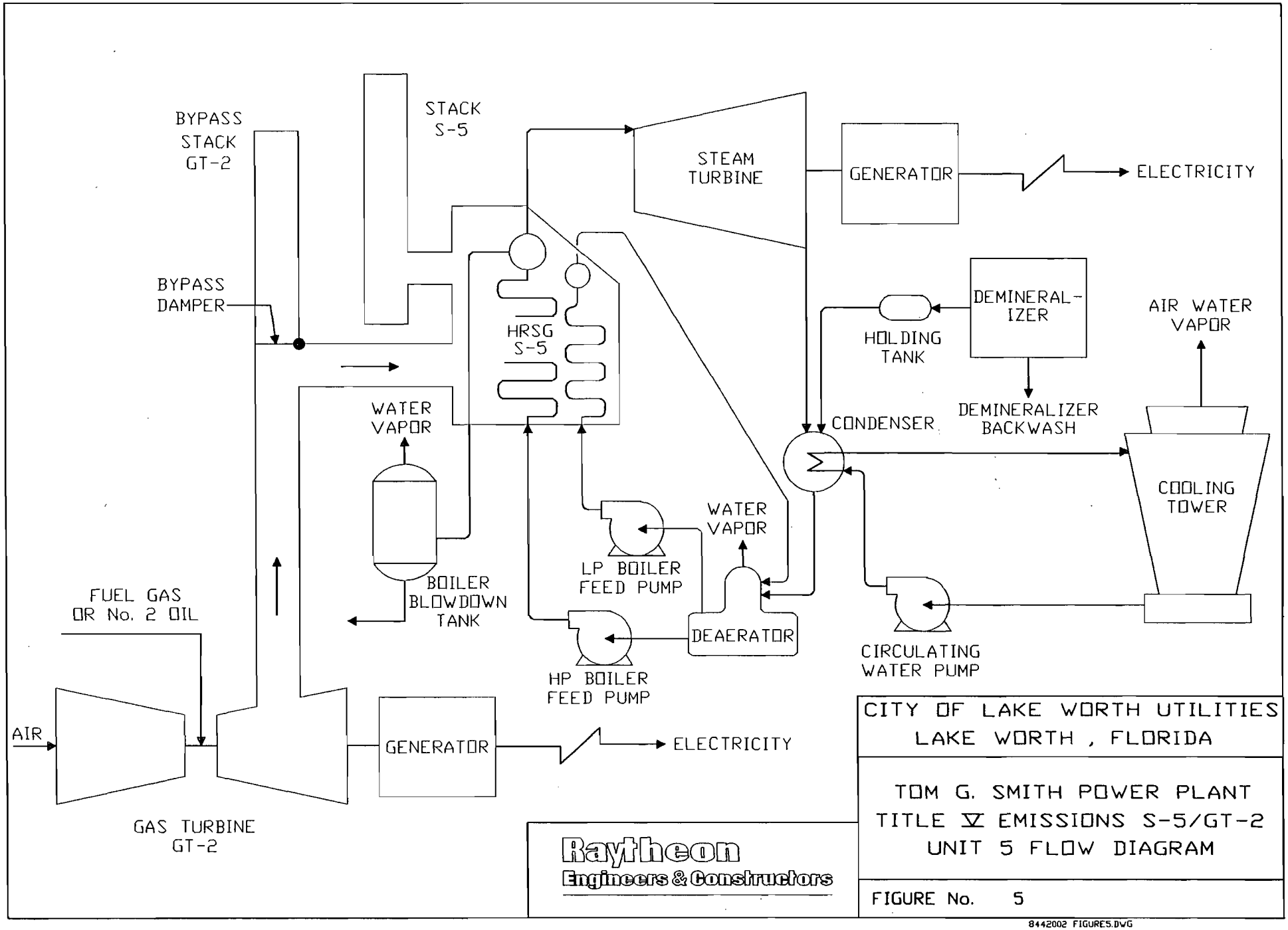
CITY OF LAKE WORTH UTILITIES
LAKE WORTH , FLORIDA

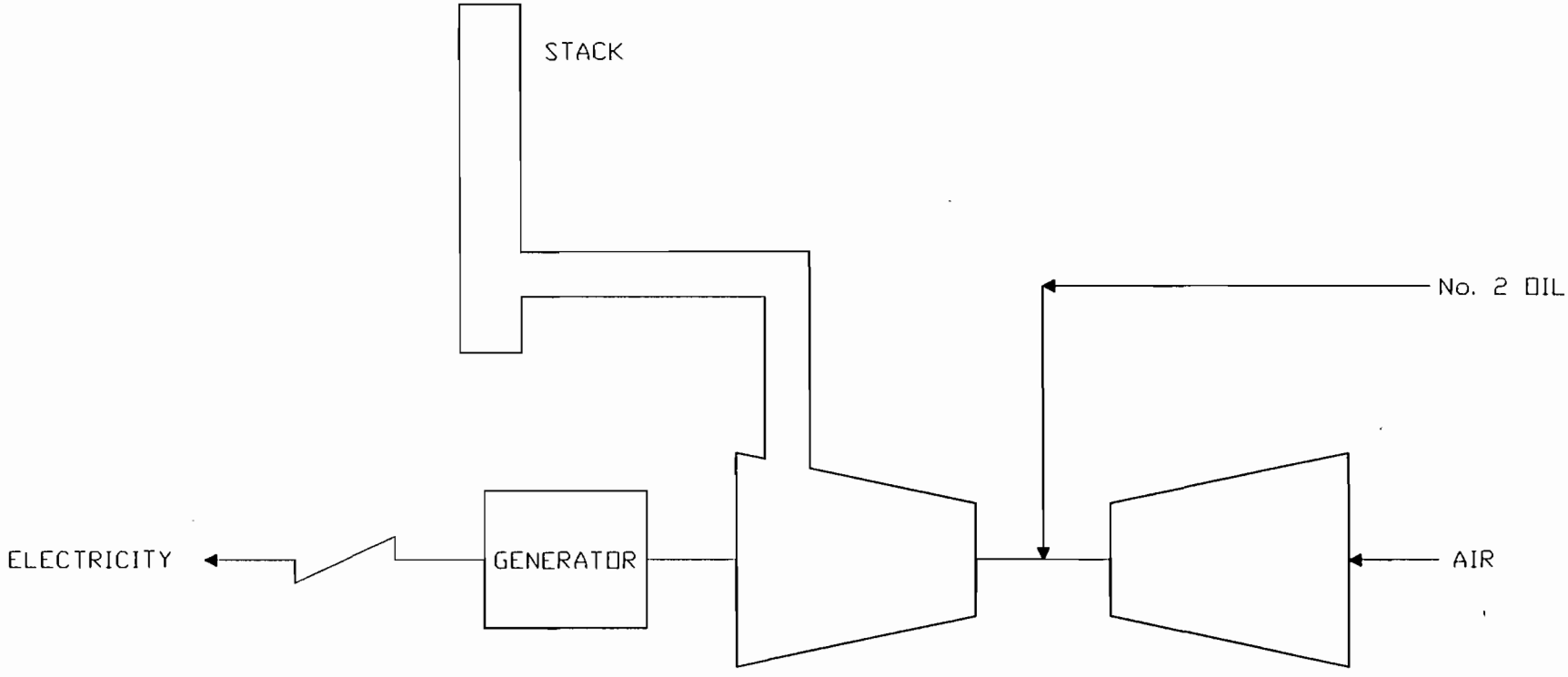
TOM G. SMITH POWER PLANT
TITLE V EMISSIONS S-4
UNIT 4 FLOW DIAGRAM

Raytheon
Engineers & Constructors

FIGURE No. 4

8442002 FIGURE4.DWG


BYPASS STACK GT-2
STACK S-5
STEAM TURBINE
GENERATOR
ELECTRICITY
BYPASS DAMPER
HRSG S-5
DEMINERAL-IZER
HOLDING TANK
AIR WATER VAPOR
DEMINERALIZER BACKWASH
WATER VAPOR
CONDENSER
COOLING TOWER
WATER VAPOR
LP BOILER FEED PUMP
BOILER BLOWDOWN TANK
FUEL GAS OR No. 2 OIL
DEAERATOR
HP BOILER FEED PUMP
CIRCULATING WATER PUMP
AIR
GENERATOR
ELECTRICITY
GAS TURBINE GT-2
CITY OF LAKE WORTH UTILITIES
LAKE WORTH , FLORIDA
TOM G. SMITH POWER PLANT
TITLE V EMISSIONS S-5/GT-2
UNIT 5 FLOW DIAGRAM
Raytheon
Engineers & Constructors
FIGURE No. 5
8442002 FIGURE5.DWG

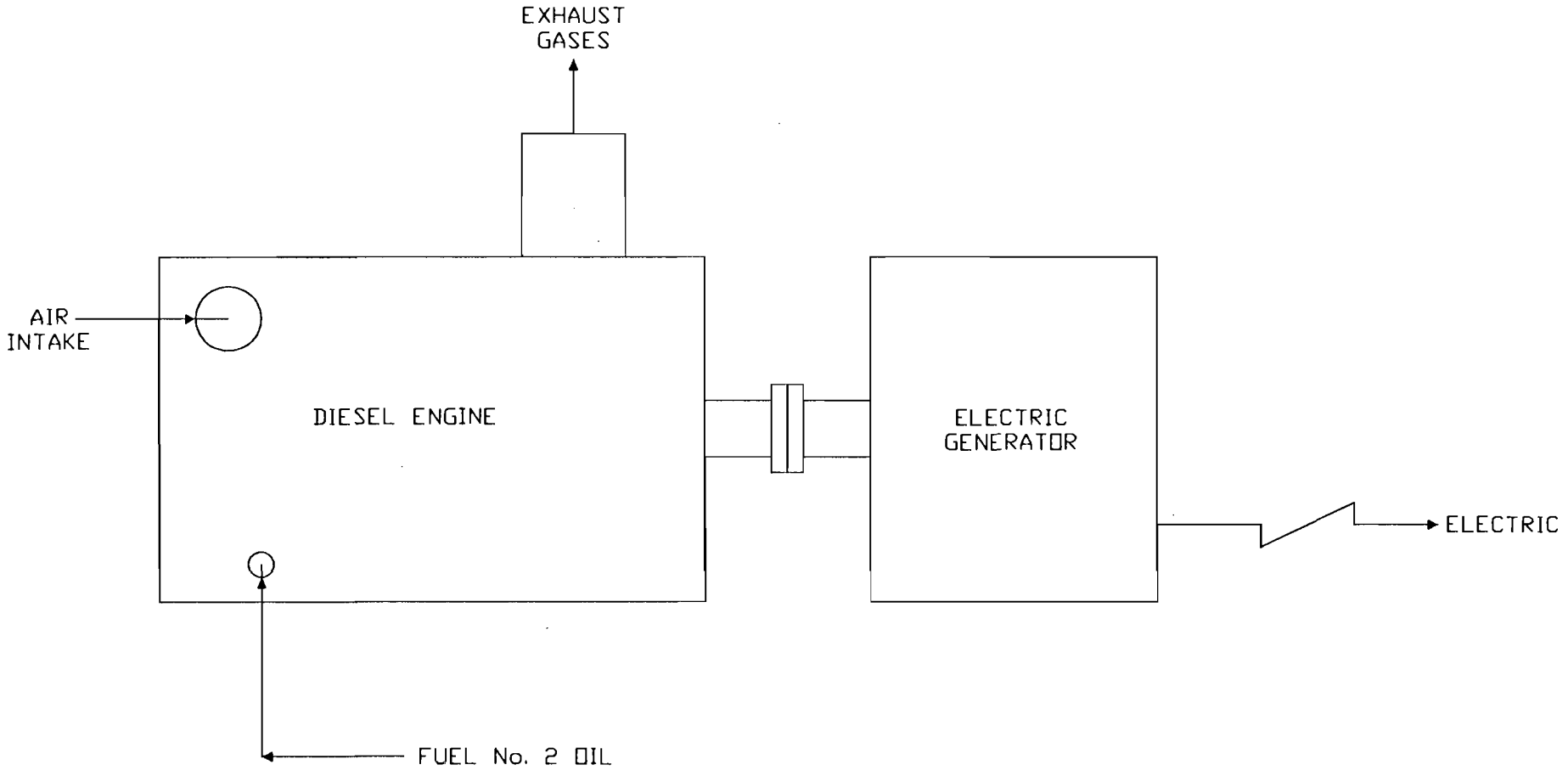


CITY OF LAKE WORTH UTILITIES
LAKE WORTH , FLORIDA

TOM G. SMITH POWER PLANT
TITLE V EMISSIONS GT-1
FLOW DIAGRAM

Raytheon
Engineers & Constructors

FIGURE No. 6



CITY OF LAKE WORTH UTILITIES
LAKE WORTH , FLORIDA

TOM G. SMITH POWER PLANT
TITLE V EMISSIONS
MU-1 THRU MU-5
DIESEL UNITS 1 THRU 5
FLOW DIAGRAM

Raytheon
Engineers & Constructors

FIGURE No. 7

ATTACHMENT D

FUEL ANALYSES AND
SPECIFICATION

FLORIDA GAS TRANSMISSION COMPANY

Spot Analysis of Natural Gas for Delivery in Florida

DATE: September 20, 1994
TIME: 11:41

Component Name	Mole %
Hexane	0.078
Propane	0.338
Isobutane	0.081
n-Butane	0.076
Isopentane	0.035
n-Pentane	0.024
Nitrogen	0.371
Methane	96.065
CO_2	0.729
Ethane	2.204
Totals	100.000

Dry Btu/cf @ 14.730 psia and 60°F = 1033.8
Real Relative Density = 0.5829

Total Sulfur	0.12 Gr/Ccf
Total Sulfur D/S	0.35 Gr/Ccf
H^2S	0.04 Gr/Ccf
H^2O	4.5 lb/MMcf

TOM G. SMITH
CITY OF LAKE WORTH
ORIS CODE 673

Post-it® Fax Note 7671	Date 10/14/94	# of pages ▶ 1
To Steve Abel	From Chris Snyder	
Co./Dept. LWU	Co. FPUC	
Phone #	Phone #	
Fax #	Fax #	

CITY OF LAKE WORTH
1900 2ND AVENUE NORTH
LAKE WORTH, FLORIDA 33461-4298

UTILITIES
DEPARTMENT

(407) 586-1666
FAX (407) 586-1702

June 8, 1995

Mr. Tom Tittle, Air Compliance Engineer
Florida Department of Environmental Protection
1900 S. Congress Avenue
West Palm Beach, FL 33402-3858

Subj: City of Lake Worth Utilities
Quarterly Fuel Oil Analysis Reports
First Quarter 1995 (Jan - Feb - Mar)

Dear Mr. Tittle:

Please find attached our quarterly fuel oil analysis as required by our operating permits. Included are quarterly reports for on site storage and as burned composites. Unit GT-2 burned oil during March for 1.0 hour. Unit S-3 burned oil during February for 8.0 hours.

Results for Units S-3 and GT-2/S-5

Month	Unit	Hours	%S
Jan	S-3	0.0	NA
Feb	S-3	8.0	1.75
Mar	S-3	0.0	NA
Jan	GT-2	0.0	NA
Feb	GT-2	0.0	NA
Mar	GT-2	1.0	0.10

The results of the quarterly samples for each type fuel oil are below:

Type	Date	%S
No.2	04/01/95	0.10
No.6	04/01/95	1.76

The results indicate the oil is within our permit limits of 0.35% sulfur for No. 2 oil and 2.25% sulfur for No. 6 oil.

If you need more information please let me know.

Sincerely,

CITY OF LAKE WORTH UTILITIES

William C Michael

William C. Michael
Mechanical Systems Engineer

Attachments

cc: A.J. Satyal, P.B.C.H.D.
Margaret Johnstone, Environmental Compliance Officer
Jerry Schroader, Assistant Power Plant Superintendent
Steve Abel, System Operation Superintendent
Joe Brockway, Power Plant

SAYBOLT INC.

ORT EVERGLADES, FL OFFICE

LABORATORY ANALYSIS REPORT

CUSTOMER
REF. NO(S) :P.O. #97407/

DATE : 04/06/95

LABORATORY NO. : 95-346
INVOICE NO.:FE-6300A

DESCRIPTION

Sample designated as :
NO.6 FUEL OIL

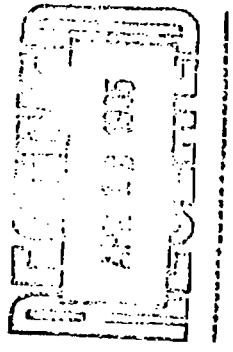
Identifying Marks :
SUBMITTED SAMPLE DATED
04/01/95 (QUARTERLY) AT
CITY OF LAKE WORTH
LAKE WORTH, FLORIDA

Submitted by :
CITY OF LAKE WORTH

Client :
CITY OF LAKE WORTH

ANALYSIS

TEST	METHOD	RESULT
API GRAVITY @ 60 DEG.F	D 1298	18.5
SPECIFIC GRAVITY @ 60 DEG.F	D 1298	.9433
SULFUR, X-RAY WT.%	D 4294	1.76
HEAT OF COMBUSTION, BTU/Lb	D 4863	18,529
HEAT OF COMBUSTION, BTU/Gallon	D 4863	145,564
HEAT OF COMBUSTION, BTU/Bbls	D 4863	6,113,388
ASH, WT.%	D 3228	0.071



NOTES

- This laboratory report may not be published or used except in full. It shall not be used in connection with any form of advertising unless written consent is received from an officer of SAYBOLT INC.
- Results were based on analysis made at the time samples were received at the laboratory.
- Samples, if any, shall be retained for a period of 45 days unless a longer period is requested in writing.
- Sample nomenclature is designated by the customer.

MEMBERS ASTM-API-SAE

SAYBOLT INC.

SAYBOLT INC.

ORT EVERGLADES, FL OFFICE

LABORATORY ANALYSIS REPORT

CUSTOMER
REF. NO(S) :P.O. #97407/

DATE : 04/06/95

LABORATORY NO. : 95-344
INVOICE NO.:FE-6300A

DESCRIPTION

Sample designated as :
NO.2 FUEL OIL

Identifying Marks :
SUBMITTED SAMPLE DATED
04/01/95 (QUARTERLY) AT
CITY OF LAKE WORTH
LAKE WORTH, FLORIDA

Submitted by :
CITY OF LAKE WORTH

Client :
CITY OF LAKE WORTH

ANALYSIS

TEST	METHOD	RESULT
API GRAVITY @ 60 DEG.F	D 1298	33.6
SPECIFIC GRAVITY @ 60 DEG.F	D 1298	.8571
SULFUR, X-RAY WT.%	D 4294	0.10
HEAT OF COMBUSTION, BTU/Lb	D 4863	19,528
HEAT OF COMBUSTION, BTU/Gallon	D 4863	139,352
HEAT OF COMBUSTION, BTU/Bbls	D 4863	5,852,784
ASH, WT.%	D 3228	0.0011

NOTES

- This laboratory report may not be published or used except in full. It shall not be used in connection with any form of advertising unless written consent is received from an officer of SAYBOLT INC.
- Results were based on analysis made at the time samples were received at the laboratory.
- Samples, if any, shall be retained for a period of 45 days unless a longer period is requested in writing.
- Sample nomenclature is designated by the customer.

MEMBERS ASTM-API-SAE

SAYBOLT INC.

SAYBOLT INC.

SAYBOLT

ORT EVERGLADES, FL OFFICE

LABORATORY ANALYSIS REPORT

CUSTOMER
REF. NO(S) :P.O. #97407/

DATE : 04/06/95

LABORATORY NO. : 95-345

INVOICE NO.:FE-6300A

DESCRIPTION

Sample designated as :
NO.2 FUEL OIL

Identifying Marks :
SUBMITTED SAMPLE DATED
3/27/95 (V.E.CGT-2-S-5)
AT CITY OF LAKE WORTH
LAKE WORTH, FLORIDA

Submitted by :
CITY OF LAKE WORTH

Client :
CITY OF LAKE WORTH

NOTES

- This laboratory report may not be published or used except in full. It shall not be used in connection with any form of advertising unless written consent is received from an officer of SAYBOLT INC.
- Results were based on analysis made at the time samples were received at the laboratory.
- Samples, if any, shall be retained for a period of 45 days unless a longer period is requested in writing.
- Sample nomenclature is designated by the customer.

ANALYSIS

TEST	METHOD	RESULT
API GRAVITY @ 60 DEG.F	D 1298	33.6
SPECIFIC GRAVITY @ 60 DEG.F	D 1298	.8571
SULFUR, X-RAY WT.%	D 4294	0.10
HEAT OF COMBUSTION, BTU/Lb	D 4863	19,528
HEAT OF COMBUSTION, BTU/Gallon	D 4863	139,352
HEAT OF COMBUSTION, BTU/Bbls	D 4863	5,852,784
ASH, WT.%	D 3228	0.0010

MEMBERS ASTM-API-SAE

SAYBOLT INC.

SAYBOLT INC.

PORT EVERGLADES, FL OFFICE

SAYBOLT

CUSTOMER REF. NO(S) :P.O.#96979/

DATE : 03/02/95

LABORATORY NO. : 95-215

INVOICE NO.:FE-6252A

DESCRIPTION

Sample designated as :
NO.6 FUEL OIL

Identifying Marks :
SUBMITTED QTRLY SAMPLE
S3 BOILER DATED 2/06/95 As burned
AT CITY OF LAKE WORTH
LAKE WORTH, FLORIDA

Submitted by :
CITY OF LAKE WORTH

Client :
CITY OF LAKE WORTH

NOTES

- This laboratory report may not be published or used except in full. It shall not be used in connection with any form of advertising unless written consent is received from an officer of SAYBOLT INC.
- Results were based on analysis made at the time samples were received at the laboratory.
- Samples, if any, shall be retained for a period of 45 days unless a longer period is requested in writing.
- Sample nomenclature is designated by the customer.

ANALYSIS

TEST	METHOD	RESULT
API GRAVITY @ 60 DEG.F	D 1298	18.5
SPECIFIC GRAVITY @ 60 DEG.F	D 1298	.9433
ASH, WT.%	D 482	0.064
SULFUR, X-RAY WT.%	D 4294	1.75
HEAT OF COMBUSTION (BTU/LB) GROSS	D 4868	18,494
HEAT OF COMBUSTION (BTU/GAL) GROSS	D 4868	145,289
HEAT OF COMBUSTION (BTU/Bbl) GROSS	D 4868	6,102,138

MEMBERS ASTM-API-SAE

SAYBOLT INC.

SAYBOLT INC.

SAYBOLT

PORT EVERGLADES, FL OFFICE

LABORATORY ANALYSIS REPORT

CUSTOMER
REF. NO(S) :#97407/

DATE : 04/20/95

LABORATORY NO. :

INVOICE NO.:FE-6329A

DESCRIPTION

Sample designated as :
NO.6 FUEL OIL

Identifying Marks :
SUBMITTED SAMPLE DATED
04/01/95 (QUARTERLY) AT
CITY OF LAKE WORTH
LAKE WORTH, FLORIDA

Submitted by :
CITY OF LAKE WORTH

Client :
CITY OF LAKE WORTH

NOTES

- This laboratory report may not be published or used except in full. It shall not be used in connection with any form of advertising unless written consent is received from an officer of SAYBOLT INC.
- Results were based on analysis made at the time samples were received at the laboratory.
- Samples, if any, shall be retained for a period of 45 days unless a longer period is requested in writing.
- Sample nomenclature is designated by the customer.

ANALYSIS

TEST	METHOD	RESULT
CARBON		86.19
HYDROGEN		11.83
NITROGEN		0.30
OXYGEN		0.18

MEMBERS ASTM-API-SAE

ATTACHMENT E

STACK SAMPLING FACILITIES IDENTIFICATION

Attachment E
Stack Sampling Facilities Description

Emission testing can be performed on all of the major emission units. However, on S-1, GT-1, CC-1, and MU-1 to MU-5 permanent platform structures do not exist. In order to perform emission tests on these units, a bucket truck is used to hoist personnel and equipment to the stack test port elevations. For the diesel engines, MU-1 to MU-5, temporary stack extensions are installed with sample ports to perform the emission tests. Access to the diesel engine stack is via a temporary ladder installed during the testing. On figures 8, 9, 10 and 11 the stack sampling locations are identified for S-1, GT-1, CC-1 and MU-1 to MU-5.

On S-3, a continuous emission monitoring system is installed. The continuous emission monitoring system equipment is serviced and tested from two permanently installed stack platforms, one at elevation 114'-0" and one at elevation 101'-6". Both platforms are accessible by a cagged ladder.

The stack configuration of the continuous emission monitoring system equipment and test ports on S-3 is presented on Drawing 8442-D-50004.

Emission Unit S-4 is currently in an extended shutdown. This unit has a stack test platform installed at elevation 97'-6". Access to the stack test platform is via a cagged ladder. The location of the S-4 stack test nozzles are shown on figure 12.

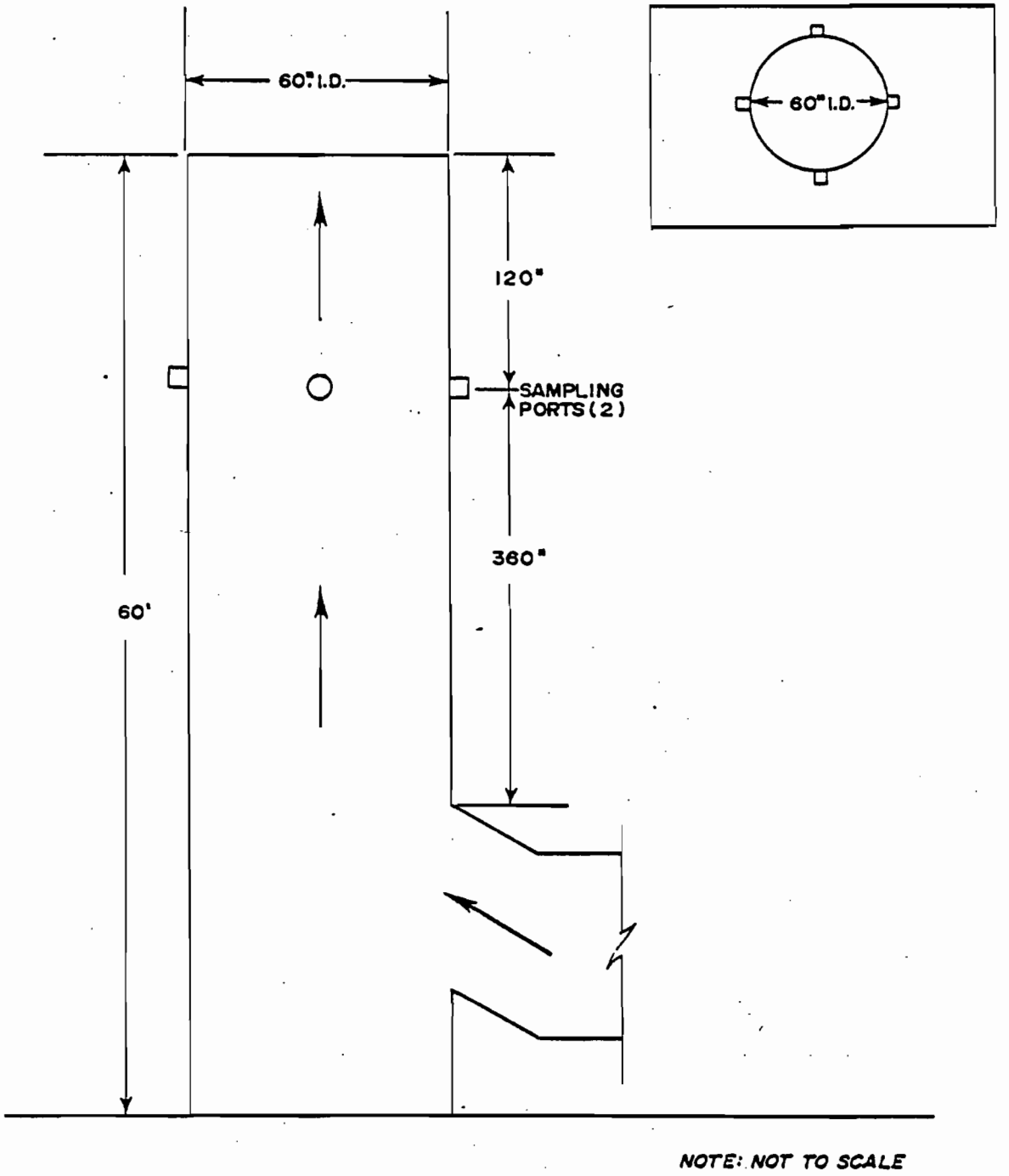


FIGURE 8
SAMPLING POINT LOCATION
UNIT S-1
LAKE WORTH UTILITIES
LAKE WORTH, FLORIDA

AIR CONSULTING
and
ENGINEERING

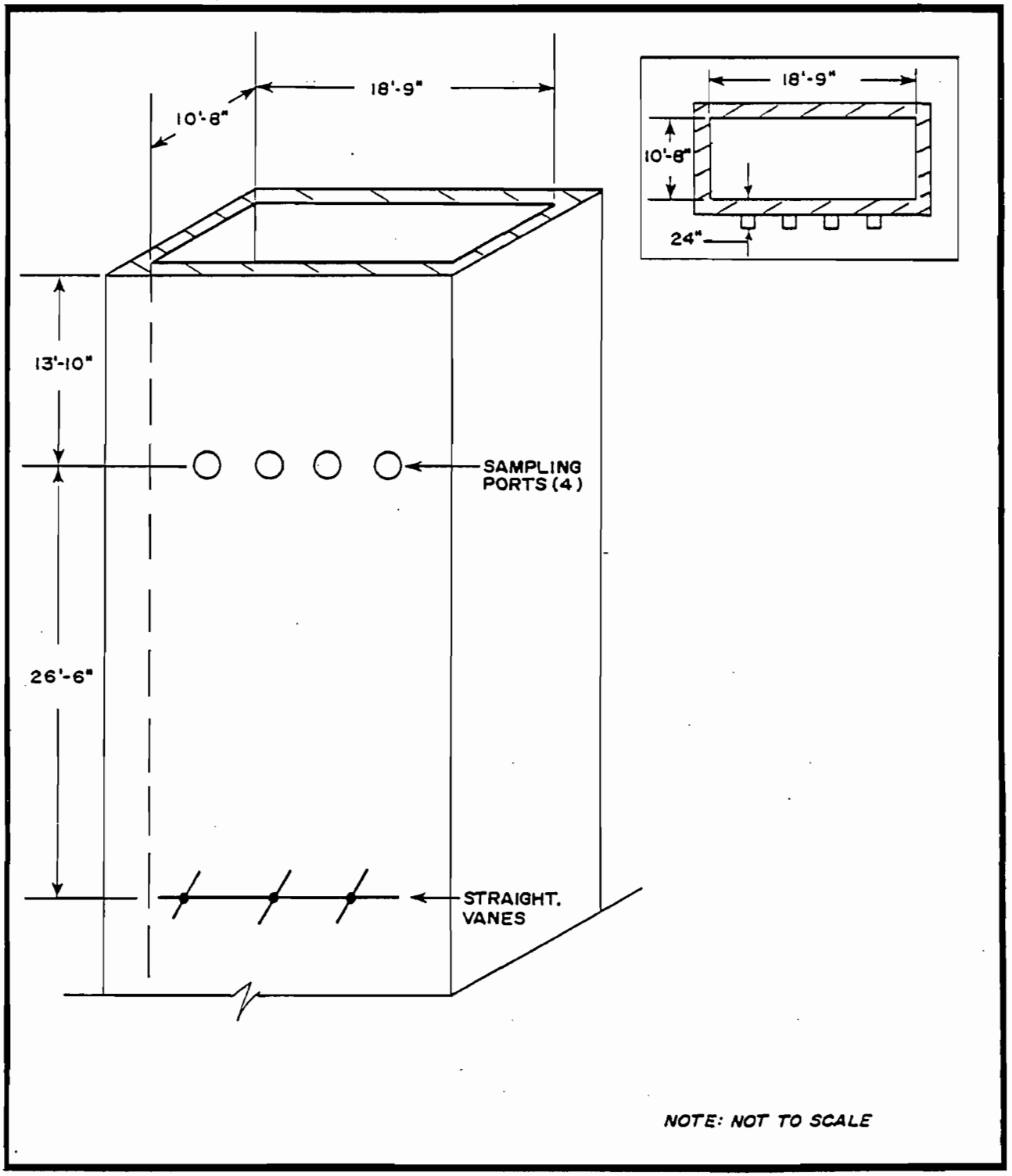


FIGURE 9
SAMPLING POINT LOCATION
GAS TURBINE-UNIT I GT-1
LAKE WORTH UTILITIES
LAKE WORTH, FLORIDA

AIR CONSULTING
and
ENGINEERING

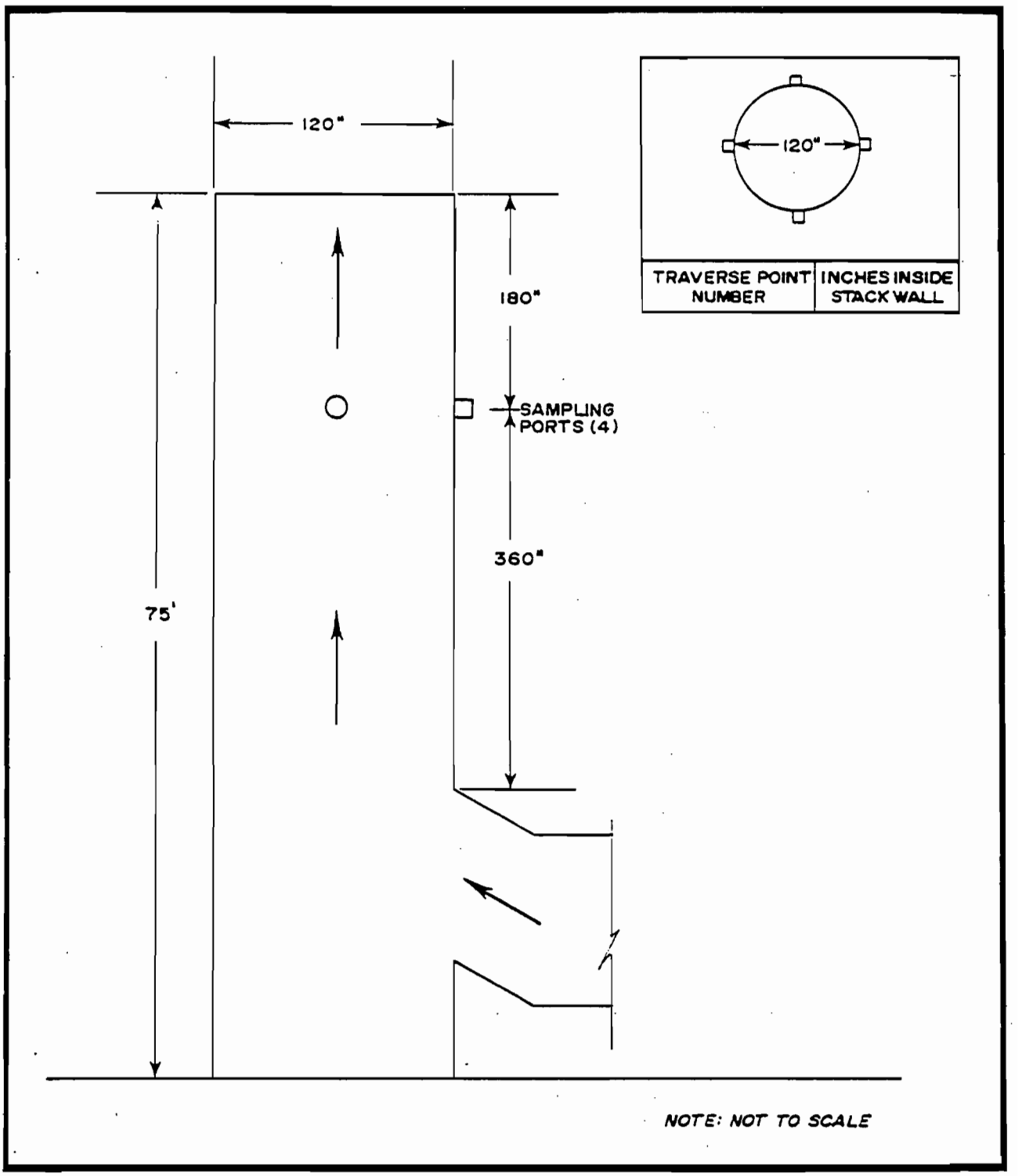


FIGURE 10
SAMPLING POINT LOCATION
COMBINED CYCLE UNIT 1 CC-1
LAKE WORTH UTILITIES
LAKE WORTH, FLORIDA

AIR CONSULTING
and
ENGINEERING

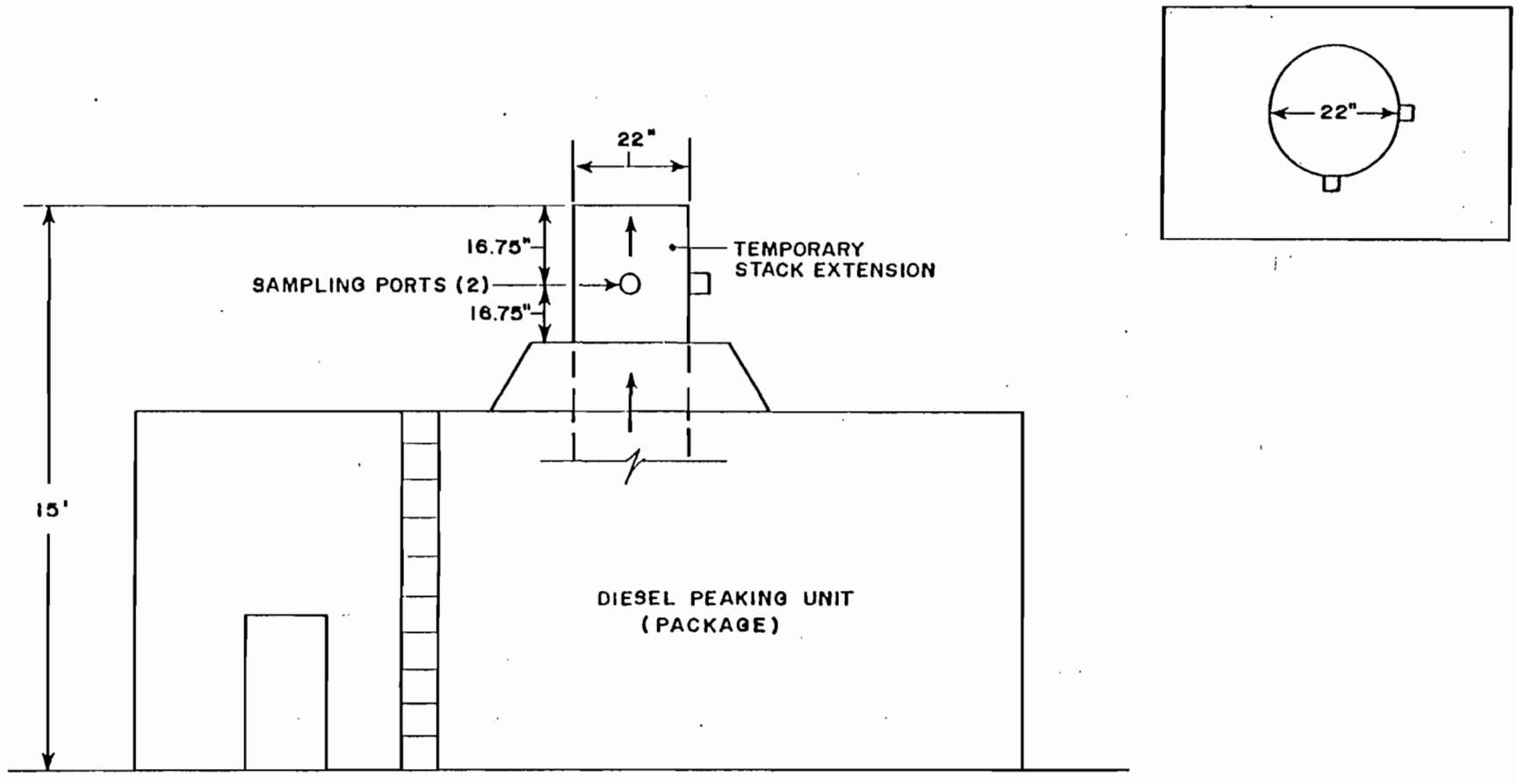
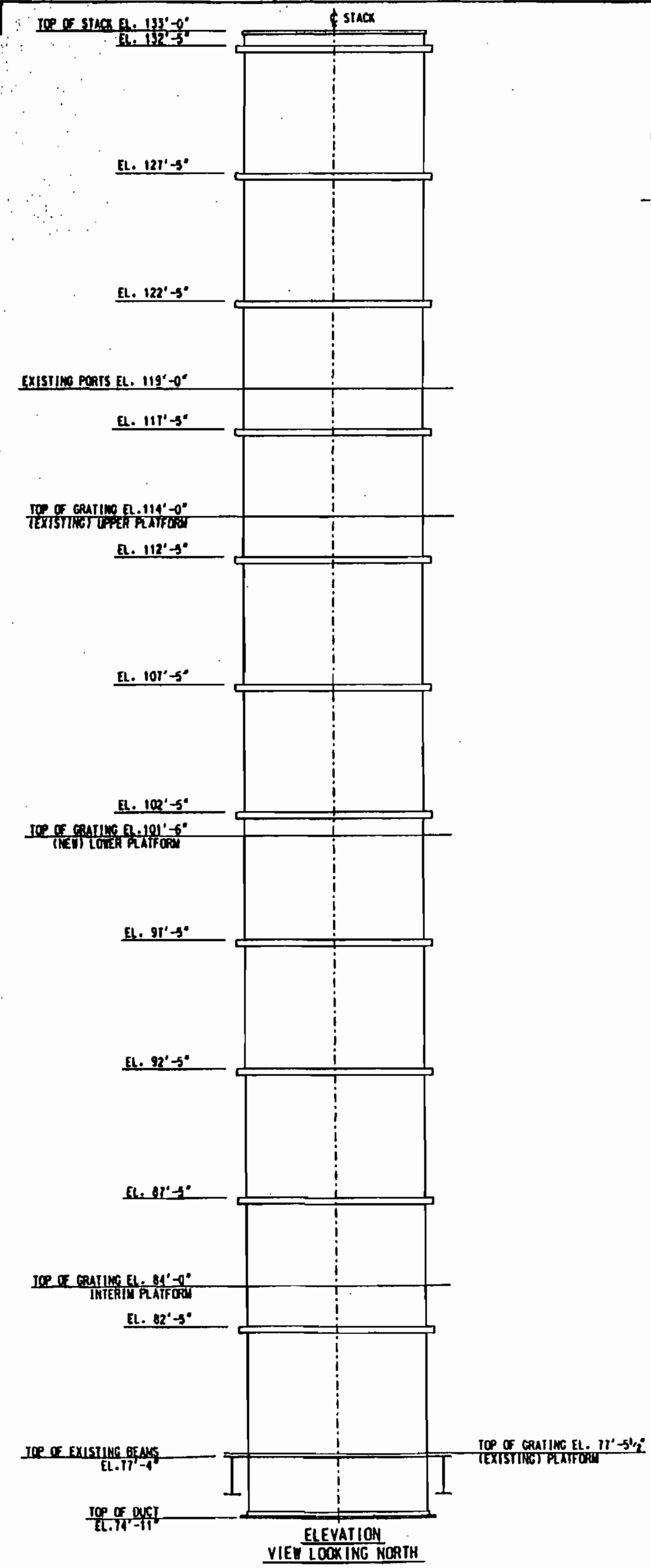
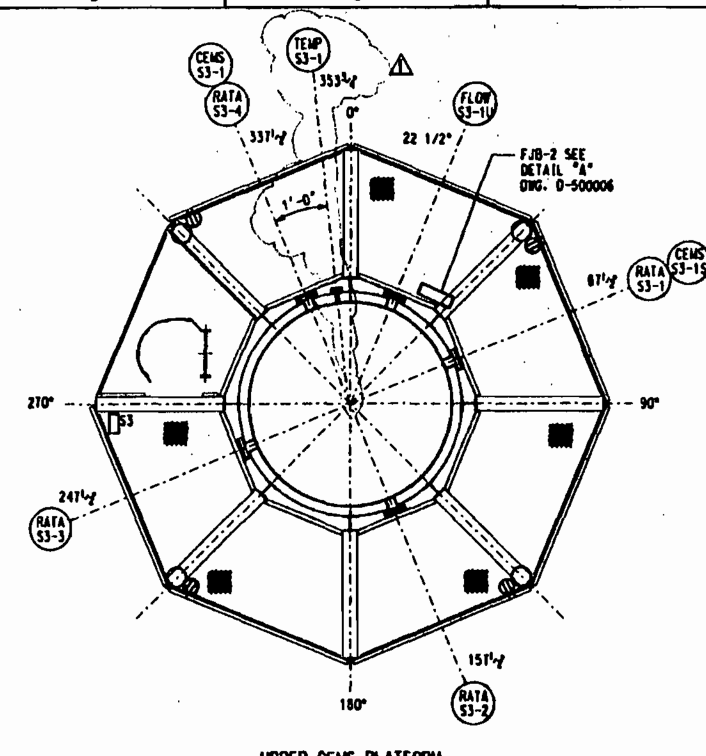


FIGURE 11
SAMPLING POINT LOCATION
M-UNIT MU-1 to MU-5
LAKE WORTH UTILITIES
LAKE WORTH, FLORIDA

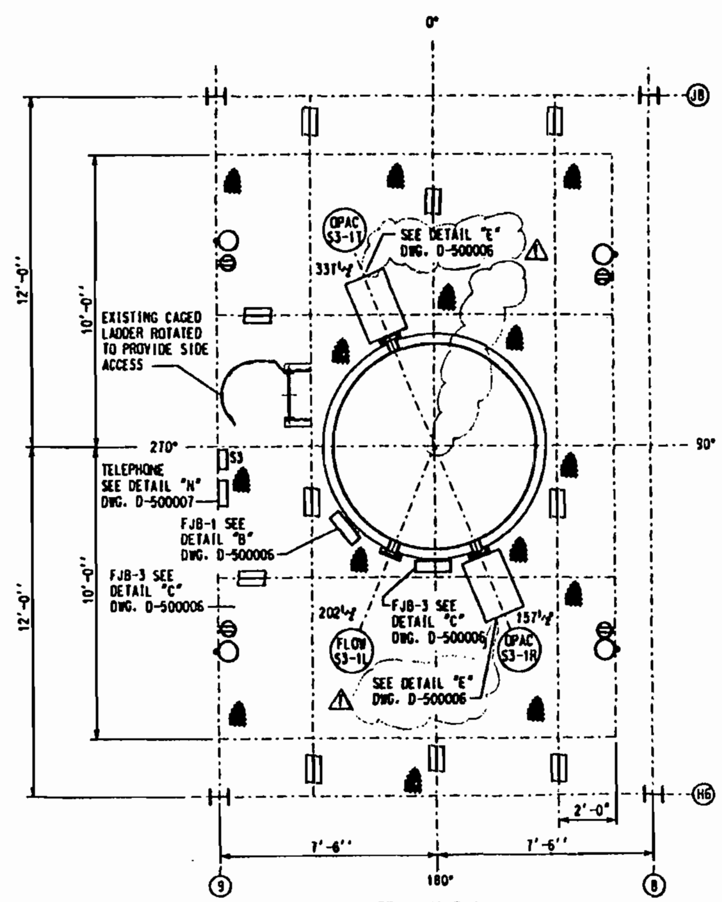
AIR CONSULTING
and
ENGINEERING



ELEVATION
VIEW LOOKING NORTH



UPPER CEMS PLATFORM
PLAN ABOVE ELEVATION 114'-0"



LOWER CEMS PLATFORM
PLAN ABOVE ELEVATION 101'-6"

NOTES:

1. REFER TO DWG. 8442-D-500001 FOR GENERAL NOTES, LEGENDS AND REFERENCE DRAWINGS.

LEGEND:

- OPAC S3-1T ---- OPACITY MONITOR (TRANSCEIVER)
- OPAC S3-1R ---- OPACITY MONITOR (REFLECTOR)
- CEMS S3-1 ---- CEMS PORT
- CEMS S3-1S ---- CEMS PORT (SPARE)
- RATA S3-1 ---- RATA PORT 1
- RATA S3-2 ---- RATA PORT 2
- RATA S3-3 ---- RATA PORT 3
- RATA S3-4 ---- RATA PORT 4
- FLOW S3-1U ---- FLOW (UPPER)
- FLOW S3-1L ---- FLOW (LOWER)
- TEMP S3-1 ---- TEMPERATURE PORT
- ---- LIGHT FIXTURE
- ---- DUPLEX RECEPTACLE
- S3 ---- 3 WAY LIGHT SWITCH

NOZZLE IDENT.	INSTR. TAG NO.	DEGREES C.W. FROM AZIMUTH 0°	NOZZLE PIPE/FLG.SIZE	NOZZLE ℄ ELEV.
OPAC S3-1T	#AE-1000T	337 1/2°	4"	106'-6"
OPAC S3-1R	#AE-1000R	157 1/2°	4"	106'-6"
CEMS S3-1	#AE-1001	337 1/2°	4"	115'-6"
CEMS S3-1S	#AX-1002	67 1/2°	4"	115'-6"
RATA S3-1	#UX-1004A	67 1/2°	4" (EXIST)	119'-0"
RATA S3-2	#UX-1004B	157 1/2°	4" (EXIST)	119'-0"
RATA S3-3	#UX-1004C	247 1/2°	4" (EXIST)	119'-0"
RATA S3-4	#UX-1004D	337 1/2°	4" (EXIST)	119'-0"
FLOW S3-1U	#FE-1005A	22 1/2°	4"	116'-0"
FLOW S3-1L	#FE-1005B	202 1/2°	4"	106'-0"
TEMP S3-1	#TE-1006	353 3/4°	1"	115'-6"

NOTES:
1. PENETRATION ELEVATIONS REFERENCE EXTERIOR FACE OF STACK.
2. # = ALL TAG NUMBERS SHALL BE PREFIXED WITH S3CEM

MICRO	REV	DATE	DESCRIPTION
	1	8/25/94	DELT'D. PRES S3-1 & RELOCATED TEMP S3-1
	0	7/1/94	ISSUED FOR CONSTRUCTION

SCALE 1/4"=1'-0"

Raytheon Engineers & Constructors

CITY OF LAKE WORTH UTILITIES
LAKE WORTH, FLORIDA

TOM G. SMITH POWER PLANT UNIT #3
CEMS SYSTEM PROJECT
STACK EQUIPMENT & NOZZLE ARRANGEMENT

DWG. NO. 8442-D-500004 REV. NO. 1

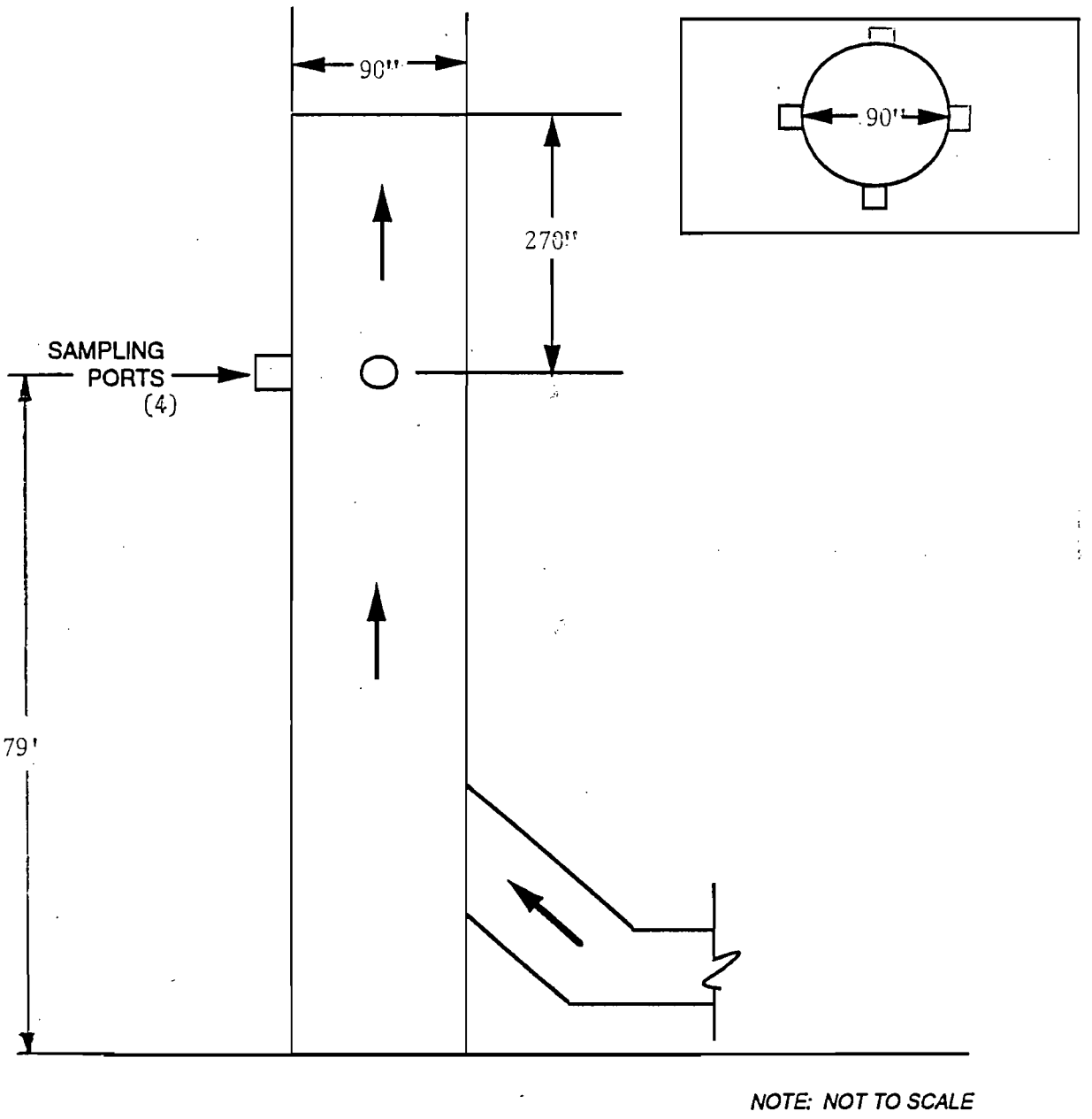


FIGURE 12
SAMPLING POINT LOCATION
UNIT 4 S-4
LAKE WORTH UTILITIES
LAKE WORTH, FLORIDA

ATTACHMENT F

FUGITIVE EMISSIONS IDENTIFICATION

ATTACHMENT F

CALCULATION OF FUGITIVE EMISSIONS FROM PIPING

Fugitive vapor emissions that result from the leaking of connections and seals in the fuel oil and lubrication oil piping systems throughout the plant were quantified. The components at the Tom G. Smith Power Plant contributing to these emissions are the following:

Pump Seals
Valves
Flange Joints
Open-Ended Lines

CALCULATIONAL METHODS

The first step in quantifying the fugitive emissions from piping is to obtain a count of the above items. Rather than attempt to physically count these numerous components, their quantities can be estimated using estimating factors based on pump count. Equipment counts are estimated by multiplying the number of pumps in service by the appropriate factor. The factors are from "Improving Air Quality: Guidance for Estimating Fugitive Emissions from Equipment", published by the Chemical Manufacturers Association, 1989. The factors were based on counts obtained in the chemical processing industry, where piping configurations are often more complicated than in a typical power plant. It therefore is justifiable to use component count estimating factors from the "Low" column. These factors are as follows:

Equipment Item	Components per Liquid Pump
Pump	1
Valves	20
Flanges	59
Open Ended Lines	0.25

The pump count was obtained by examining process diagrams, conducting the plant walkdown and interviewing plant personnel. Spared pumps were not included in the count. Piping fugitive emissions are based on pump running times. Due to the difficulties associated with obtaining precise pump run times, the operating periods of the units is used instead. Therefore, the pump count is intended to reflect those pumps that continuously run while the various units run. This count was overstated somewhat to reflect the reduced run times of forwarding pumps that periodically cycle.

Fugitive emissions from piping are calculated using emissions factors found in Table 9.1-10 of AP-42. The factors depend on the designation of the fluid as "heavy" or "light". This classification is based on the vapor pressure of the liquid. Diesel, No. 6 fuel oil, and lube oil all qualify as heavy liquids. Along with component counts, pump run times are required for the calculation. As noted above, unit run times will be used as a surrogate for pump run times. Unit run times were taken from the 1994 and 1995 Annual Operating Reports. The resulting emissions for these two years were averaged to obtain actual emissions. The calculations and results are displayed in Table F-1.

TABLE 4-8.
CITY OF LAKE WORTH TOM G. SMITH POWER PLANT
TITLE V AIR PERMIT APPLICATION
ESTIMATION OF FUGITIVE VAPOR EMISSIONS FROM FUEL OIL PIPING

RAYTHEON ENGINEERS AND CONSTRUCTORS

UNIT	FUEL	PUMP COUNT A	PUMP EMISSIONS (lb/hr) C .046*A	VALVE COUNT D 20*A	VALVE EMISSIONS (lb/hr) F .0005*D	FLANGE COUNT G 59*A	FLANGE EMISSIONS (lb/hr) I .00056*G	OPEN ENDED LINE COUNT J .25*A	OPEN ENDED LINE EMISSIONS (lb/hr) K .005*J	TOTAL PIPING FUGITIVE EMISSIONS (lb/hr) L (C+F+I+K)	1994 OPERATING HOURS (hrs) M	TOTAL 1994 PIPING FUGITIVE EMISSIONS (lb/yr) N L*M	1995 OPERATING HOURS (hrs) O	TOTAL 1995 PIPING FUGITIVE EMISSIONS (lb/yr) P L*O	AVERAGE 1994-95 PIPING FUGITIVE EMISSIONS (lb/yr) Q AVG(N,P)	AVERAGE 1994-95 PIPING FUGITIVE EMISSIONS (tons/yr) Q AVG(N,P)/2000
S-1	NO. 6	3	0.138	60	0.03	177	0.09912	0.75	0.00375	0.27087	34	9.21	59	15.98	12.60	0.01
	LUBE	1	0.046	20	0.01	59	0.03304	0.25	0.00125	0.09029	34	3.07	59	5.33	4.20	0.00
S-3	NO. 6	3	0.138	60	0.03	177	0.09912	0.75	0.00375	0.27087	1497	405.49	2817	763.04	584.27	0.29
	LUBE	1	0.046	20	0.01	59	0.03304	0.25	0.00125	0.09029	1497	135.16	2817	254.35	194.76	0.10
GT-1	NO. 2	2	0.092	40	0.02	118	0.06608	0.5	0.0025	0.18058	13	2.35	20	3.61	2.98	0.00
	LUBE	1	0.046	20	0.01	59	0.03304	0.25	0.00125	0.09029	13	1.17	20	1.81	1.49	0.00
GT-2/S-5	NO. 2	1	0.046	20	0.01	59	0.03304	0.25	0.00125	0.09029	7448	672.48	8276	586.57	619.52	0.31
	LUBE	1	0.046	20	0.01	59	0.03304	0.25	0.00125	0.09029	7448	672.48	8276	586.57	619.52	0.31
MU 1-5	NO. 2	2	0.092	40	0.02	118	0.06808	0.5	0.0025	0.18058	50	9.03	579	104.56	56.79	0.03
TOTAL												1910.45		2281.81	2098.13	1.05

NOTES:
1. COMPONENT COUNT ESTIMATION IS PER "IMPROVING AIR QUALITY: GUIDANCE FOR ESTIMATING FUGITIVE EMISSIONS FORM EQUIPMENT", CHEMICAL MANUFACTURERS ASSICIATION, 1988. THE ABOVE ARE TAKEN FROM THE LOW COLUMN IN THE TABLE OF COMPONENTS PER LIQUID PUMP.

2. THE EMISSION FACTORS ARE TAKEN FROM THE TABLE OF AVERAGE SOCMI EMISSION FACTORS IN THE ABOVE REFERENCE. NO. 2 AND NO. 5 FUEL OILS AND THE LUBE OILS ARE TAKEN TO BE HEAVY LIQUIDS.

3. OPERATING HOURS ARE TAKEN FROM THE 1994 AND 1995 ANNUAL OPERATING REPORTS.

TANK EMISSIONS CALCULATIONS

The emissions from the liquid storage tanks on the plant site must be included in the emissions inventory. EPA has codified the calculational methods to be applied to the quantification of these emissions in its "Compilation of Air Pollutant Emission Factors: AP-42". Furthermore, EPA has published a program, TANKS2, incorporating these procedures. This program was used to calculate all significant tank emissions from the Tom G. Smith Plant.

The TANKS2 program requires the following data for each tank emission calculation:

The Tank Configuration (Vertical vs. Horizontal, Fixed vs. Floating Roof, Aboveground vs. Underground)

Tank Dimensions and Capacity

Maximum and Average Liquid Levels

Number of Turnovers and Throughput

Paint Characteristics

Breather Vent Settings

Meteorological Data

Physical Properties of Stored Liquid

The tank data were taken from materials supplied by plant personnel. Certain assumptions were applied to input data. These are listed later in this section.

RESULTS OF TANK EMISSIONS ESTIMATIONS

The data were processed by the TANKS2 program and estimates of annual VOC emissions were returned. Table F.1 shows the combustion units at the Tom G. Smith Plant, and dedicated fuel tanks that feed each unit. Table F.2 summarizes the results of the calculations for each tank.

Table F.1

Unit I.D.	Tank Number
Diesel Generators MU1-5	10 & 11
Steam Unit 1 S-1	8
Steam Unit 3 S-3	8
Steam Unit 4 S-4	8
Gas Turbine GT-1	3, 4, 5, & 6
Combined Cycle CC-1	12

Table F.2 Results of Tank Emissons Estimations

TANK NUMBER OR NAME	ANNUAL VOC EMISSIONS (lb/yr)
No. 3	93
No. 4	93
No. 5	77
No. 6	77
No. 8	12
No. 10	63
No. 11	63
No. 12	392
5000-gal Lube Oil	0.04
950-gal Lube Oil	0.01
Total	870

ASSUMPTIONS

The following assumptions were used in the inputs to the TANKS2 program:

The Liquid Height was assumed to be 2 ft. below the Shell Height.

The Avg. Liquid Height was assumed to be half the Liquid Height.

The slope of the coned roof was assumed to be .0625 ft./ft.

The closest available choice of paint color to the Medium Green colors of the tanks at the plant was assumed to be Medium Grey.

Shell and roof conditions were judged to be "Good".

Lube oils and No. 5 oil were modeled as No. 6 distillate fuel.

Due to the proximity of West Palm Beach to Lake Worth, meteorological data for West Palm Beach were used.

Theoretical tank throughputs were estimated to calculate potential emissions from each tank. For the fuel oil storage tanks, the potential emissions from the tanks would be created during the maximum use of fuel oil allowed. In this situation, the maximum capacity of each combustion unit, while operating on fuel oil for 8,760 hours per year determined the theoretical tank throughputs.

TANKS2 EMISSIONS REPORTS

The calculational documentation produced by the TANKS2 program for each of the tanks is presented in the following pages. The reports were produced in the detailed format, reproducing all input data, climatological data, property calculations, and standing, withdrawal, and total losses.

TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

Identification

Identification No.:	3
City:	Lake Worth
State:	FL
Company:	CITY OF LW/TOM G. SMITH PLANT
Type of Tank:	Vertical Fixed Roof

Tank Dimensions

Shell Height (ft):	11
Diameter (ft):	20
Liquid Height (ft):	9
Avg. Liquid Height (ft):	4
Volume (gallons):	21153
Turnovers:	319
Net Throughput (gal/yr):	6749922

Paint Characteristics

Shell Color/Shade:	Gray/Medium
Shell Condition:	Good
Roof Color/Shade:	Gray/Medium
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft):	0.63
Radius (ft) (Dome Roof):	0.00
Slope (ft/ft) (Cone Roof):	0.0625

Breather Vent Settings

Vacuum Setting (psig):	-0.03
Pressure Setting (psig):	0.03

Meteorological Data Used in Emission Calculations: West Palm Beach, Florida

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	84.05	74.24	93.86	77.68	0.0138	0.0102	0.0185	130.000			130.00	Option 4: A=12.1010, B=8907.0

Annual Emission Calculations

Standing Losses (lb):	17.4071
Vapor Space Volume (cu ft):	2264.56
Vapor Density (lb/cu ft):	0.0003
Vapor Space Expansion Factor:	0.068683
Vented Vapor Saturation Factor:	0.994742
Tank Vapor Space Volume	
Vapor Space Volume (cu ft):	2264.56
Tank Diameter (ft):	20
Vapor Space Outage (ft):	7.21
Tank Shell Height (ft):	11
Average Liquid Height (ft):	4
Roof Outage (ft):	0.21
Roof Outage (Cone Roof)	
Roof Outage (ft):	0.21
Roof Height (ft):	0.625
Roof Slope (ft/ft):	0.06250
Shell Radius (ft):	10
Vapor Density	
Vapor Density (lb/cu ft):	0.0003
Vapor Molecular Weight (lb/lb-mole):	130.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Daily Avg. Liquid Surface Temp.(deg. R):	543.72
Daily Average Ambient Temp. (deg. R):	534.27
Ideal Gas Constant R (psia cuft /(lb-mole-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	537.35
Tank Paint Solar Absorptance (Shell):	0.68
Tank Paint Solar Absorptance (Roof):	0.68
Daily Total Solar Insolation Factor (Btu/sqftday):	1438.00
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.068683
Daily Vapor Temperature Range (deg.R):	39.26
Daily Vapor Pressure Range (psia):	0.008256
Breather Vent Press. Setting Range(psia):	0.06
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.010239
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.018495
Daily Avg. Liquid Surface Temp. (deg R):	543.72
Daily Min. Liquid Surface Temp. (deg R):	533.91
Daily Max. Liquid Surface Temp. (deg R):	553.53
Daily Ambient Temp. Range (deg.R):	16.50

Annual Emission Calculations
Vented Vapor Saturation Factor

Vented Vapor Saturation Factor:	0.994742
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Vapor Space Outage (ft):	7.21
Withdrawal Losses (lb):	75.3465
Vapor Molecular Weight (lb/lb-mole):	130.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Annual Net Throughput (gal/yr):	6749922
Turnover Factor:	0.2607
Maximum Liquid Volume (cuft):	2827
Maximum Liquid Height (ft):	9
Tank Diameter (ft):	20
Working Loss Product Factor:	1.00
Total Losses (lb):	92.75

Annual Emissions Report

Liquid Contents	Losses (lbs.): Standing	Withdrawal	Total
Distillate fuel oil no. 2	17.41	75.35	92.75
Total:	17.41	75.35	92.75

TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

Identification

Identification No.:	4
City:	Lake Worth
State:	FL
Company:	CITY OF LW/TOM G. SMITH PLANT
Type of Tank:	Vertical Fixed Roof

Tank Dimensions

Shell Height (ft):	11
Diameter (ft):	20
Liquid Height (ft):	9
Avg. Liquid Height (ft):	4
Volume (gallons):	21153
Turnovers:	319
Net Throughput (gal/yr):	6749922

Paint Characteristics

Shell Color/Shade:	Gray/Medium
Shell Condition:	Good
Roof Color/Shade:	Gray/Medium
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft):	0.63
Radius (ft) (Dome Roof):	0.00
Slope (ft/ft) (Cone Roof):	0.0625

Breather Vent Settings

Vacuum Setting (psig):	-0.03
Pressure Setting (psig):	0.03

Meteorological Data Used in Emission Calculations: West Palm Beach, Florida

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	84.05	74.24	93.86	77.68	0.0138	0.0102	0.0185	130.000			130.00	Option 4: A=12.1010, B=8907.0

Annual Emission Calculations

Standing Losses (lb):	17.4071
Vapor Space Volume (cu ft):	2264.56
Vapor Density (lb/cu ft):	0.0003
Vapor Space Expansion Factor:	0.068683
Vented Vapor Saturation Factor:	0.994742
Tank Vapor Space Volume	
Vapor Space Volume (cu ft):	2264.56
Tank Diameter (ft):	20
Vapor Space Outage (ft):	7.21
Tank Shell Height (ft):	11
Average Liquid Height (ft):	4
Roof Outage (ft):	0.21
Roof Outage (Cone Roof)	
Roof Outage (ft):	0.21
Roof Height (ft):	0.625
Roof Slope (ft/ft):	0.06250
Shell Radius (ft):	10
Vapor Density	
Vapor Density (lb/cu ft):	0.0003
Vapor Molecular Weight (lb/lb-mole):	130.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Daily Avg. Liquid Surface Temp.(deg. R):	543.72
Daily Average Ambient Temp. (deg. R):	534.27
Ideal Gas Constant R (psia cuft /(lb-mole-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	537.35
Tank Paint Solar Absorptance (Shell):	0.68
Tank Paint Solar Absorptance (Roof):	0.68
Daily Total Solar Insolation Factor (Btu/sqftday):	1438.00
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.068683
Daily Vapor Temperature Range (deg.R):	39.26
Daily Vapor Pressure Range (psia):	0.008256
Breather Vent Press. Setting Range(psia):	0.06
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.010239
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.018495
Daily Avg. Liquid Surface Temp. (deg R):	543.72
Daily Min. Liquid Surface Temp. (deg R):	533.91
Daily Max. Liquid Surface Temp. (deg R):	553.53
Daily Ambient Temp. Range (deg.R):	16.50

Annual Emission Calculations
Vented Vapor Saturation Factor

Vented Vapor Saturation Factor:	0.994742
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Vapor Space Outage (ft):	7.21
Withdrawal Losses (lb):	75.3465
Vapor Molecular Weight (lb/lb-mole):	130.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Annual Net Throughput (gal/yr):	6749922
Turnover Factor:	0.2607
Maximum Liquid Volume (cuft):	2827
Maximum Liquid Height (ft):	9
Tank Diameter (ft):	20
Working Loss Product Factor:	1.00
Total Losses (lb):	92.75

Annual Emissions Report

Liquid Contents	Losses (lbs.): Standing	Withdrawal	Total
Distillate fuel oil no. 2	17.41	75.35	92.75
Total:	17.41	75.35	92.75

TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

Identification

Identification No.:	5
City:	Lake Worth
State:	FL
Company:	CITY OF LW/TOM G. SMITH PLANT
Type of Tank:	Horizontal Fixed Roof

Tank Dimensions

Shell Length (ft):	24
Diameter (ft):	10
Volume(gallons):	15600
Is tank underground? (Y/N):	N
Turnovers:	433
Net Throughput (gal/yr):	6748560

Paint Characteristics

Shell Color/Shade:	Gray/Medium
Shell Condition:	Good

Breather Vent Settings

Vacuum Setting (psig):	-0.03
Pressure Setting (psig):	0.03

Meteorological Data Used in Emission Calculations: West Palm Beach, Florida

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	84.05	74.24	93.86	77.68	0.0138	0.0102	0.0185	130.000			130.00	Option 4: A=12.1010, B=8907.0

Annual Emission Calculations

Standing Losses (lb):	9.2202
Vapor Space Volume (cu ft):	1197.56
Vapor Density (lb/cu ft):	0.0003
Vapor Space Expansion Factor:	0.068683
Vented Vapor Saturation Factor:	0.996347
Tank Vapor Space Volume	
Vapor Space Volume (cu ft):	1197.56
Tank Diameter (ft):	10
Effective Diameter (ft):	17
Vapor Space Outage (ft):	5.00
Tank Shell Height (ft):	24
Vapor Density	
Vapor Density (lb/cu ft):	0.0003
Vapor Molecular Weight (lb/lb-mole):	130.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Daily Avg. Liquid Surface Temp. (deg R):	543.72
Daily Average Ambient Temp. (deg. R):	534.27
Ideal Gas Constant R (psia cuft /(lb-mole-deg R)):	10.731
Liquid Bulk Temperature (deg R):	537.35
Tank Paint Solar Absorptance:	0.68
Daily Total Solar Insolation Factor (Btu/sqftday):	1438.00
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.068683
Daily Vapor Temperature Range (deg R):	39.26
Daily Vapor Pressure Range (psia):	0.008256
Breather Vent Press. Setting Range(psia):	0.06
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.010239
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.018495
Daily Avg. Liquid Surface Temp. (deg R):	543.72
Daily Min. Liquid Surface Temp. (deg R):	533.91
Daily Max. Liquid Surface Temp. (deg R):	553.53
Daily Ambient Temp. Range (deg.R):	16.50

DETAIL CALCULATIONS (AP-42), CONT.

Annual Emission Calculations

Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.996347
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Vapor Space Outage (ft):	5.00
Withdrawal Losses (lb):	68.2055
Vapor Molecular Weight (lb/lb-mole):	130.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Annual Net Throughput (gal/yr):	6748560
Turnover Factor:	0.2360
Tank Diameter (ft):	10
Working Loss Product Factor:	1.00
Total Losses (lb):	77.43

Annual Emissions Report

Liquid Contents	Losses (lbs.): Standing	Withdrawal	Total
Distillate fuel oil no. 2	9.22	68.21	77.43
Total:	9.22	68.21	77.43

TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

Identification
- Identification No.: 6
- City: Lake Worth
- State: FL
- Company: CITY OF LW/TOM G. SMITH PLANT
- Type of Tank: Horizontal Fixed Roof

Tank Dimensions
- Shell Length (ft): 24
- Diameter (ft): 10
- Volume(gallons): 15600
- Is tank underground? (Y/N): N
- Turnovers: 433
- Net Throughput (gal/yr): 6748560

Paint Characteristics
- Shell Color/Shade: Gray/Medium
- Shell Condition: Good

Breather Vent Settings
- Vacuum Setting (psig): -0.03
- Pressure Setting (psig): 0.03

Meteorological Data Used in Emission Calculations: West Palm Beach, Florida

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	84.05	74.24	93.86	77.68	0.0138	0.0102	0.0185	130.000			130.00	Option 4: A=12.1010, B=8907.0

Annual Emission Calculations

Standing Losses (lb):	9.2202
Vapor Space Volume (cu ft):	1197.56
Vapor Density (lb/cu ft):	0.0003
Vapor Space Expansion Factor:	0.068683
Vented Vapor Saturation Factor:	0.996347
Tank Vapor Space Volume	
Vapor Space Volume (cu ft):	1197.56
Tank Diameter (ft):	10
Effective Diameter (ft):	17
Vapor Space Outage (ft):	5.00
Tank Shell Height (ft):	24
Vapor Density	
Vapor Density (lb/cu ft):	0.0003
Vapor Molecular Weight (lb/lb-mole):	130.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Daily Avg. Liquid Surface Temp. (deg R):	543.72
Daily Average Ambient Temp. (deg. R):	534.27
Ideal Gas Constant R (psia cuft /(lb-mole-deg R)):	10.731
Liquid Bulk Temperature (deg R):	537.35
Tank Paint Solar Absorptance:	0.68
Daily Total Solar Insolation Factor (Btu/sqftday):	1438.00
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.068683
Daily Vapor Temperature Range (deg R):	39.26
Daily Vapor Pressure Range (psia):	0.008256
Breather Vent Press. Setting Range(psia):	0.06
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.010239
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.018495
Daily Avg. Liquid Surface Temp. (deg R):	543.72
Daily Min. Liquid Surface Temp. (deg R):	533.91
Daily Max. Liquid Surface Temp. (deg R):	553.53
Daily Ambient Temp. Range (deg.R):	16.50

DETAIL CALCULATIONS (AP-42), CONT.

Annual Emission Calculations

Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.996347
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Vapor Space Outage (ft):	5.00
Withdrawal Losses (lb):	68.2055
Vapor Molecular Weight (lb/lb-mole):	130.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Annual Net Throughput (gal/yr):	6748560
Turnover Factor:	0.2360
Tank Diameter (ft):	10
Working Loss Product Factor:	1.00
Total Losses (lb):	77.43

Annual Emissions Report

Liquid Contents	Losses (lbs.): Standing	Withdrawal	Total
Distillate fuel oil no. 2	9.22	68.21	77.43
Total:	9.22	68.21	77.43

TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

Identification

Identification No.:	8
City:	Lake Worth
State:	FL
Company:	CITY OF LW/TOM G. SMITH PLANT
Type of Tank:	Vertical Fixed Roof

Tank Dimensions

Shell Height (ft):	31
Diameter (ft):	46
Liquid Height (ft):	29
Avg. Liquid Height (ft):	14
Volume (gallons):	360562
Turnovers:	142
Net Throughput (gal/yr):	51091635

Paint Characteristics

Shell Color/Shade:	Gray/Medium
Shell Condition:	Good
Roof Color/Shade:	Gray/Medium
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft):	1.44
Radius (ft) (Dome Roof):	0.00
Slope (ft/ft) (Cone Roof):	0.0625

Breather Vent Settings

Vacuum Setting (psig):	0.00
Pressure Setting (psig):	0.00

Meteorological Data Used in Emission Calculations: West Palm Beach, Florida

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Residual oil no. 6	All	84.05	74.24	93.86	77.68	0.0001	0.0001	0.0001	190.000			190.00	Option 4: A=10.1040, B=10475.0

Annual Emission Calculations

Standing Losses (lb):	2.6179
Vapor Space Volume (cu ft):	29048.42
Vapor Density (lb/cu ft):	0.0000
Vapor Space Expansion Factor:	0.072211
Vented Vapor Saturation Factor:	0.999903
Tank Vapor Space Volume	
Vapor Space Volume (cu ft):	29048.42
Tank Diameter (ft):	46
Vapor Space Outage (ft):	17.48
Tank Shell Height (ft):	31
Average Liquid Height (ft):	14
Roof Outage (ft):	0.48
Roof Outage (Cone Roof)	
Roof Outage (ft):	0.48
Roof Height (ft):	1.437
Roof Slope (ft/ft):	0.06248
Shell Radius (ft):	23
Vapor Density	
Vapor Density (lb/cu ft):	0.0000
Vapor Molecular Weight (lb/lb-mole):	190.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.000105
Daily Avg. Liquid Surface Temp.(deg. R):	543.72
Daily Average Ambient Temp. (deg. R):	534.27
Ideal Gas Constant R (psia cuft /(lb-mole-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	537.35
Tank Paint Solar Absorptance (Shell):	0.68
Tank Paint Solar Absorptance (Roof):	0.68
Daily Total Solar Insolation Factor (Btu/sqftday):	1438.00
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.072211
Daily Vapor Temperature Range (deg.R):	39.26
Daily Vapor Pressure Range (psia):	0.000074
Breather Vent Press. Setting Range(psia):	0.00
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.000105
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.000074
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.000148
Daily Avg. Liquid Surface Temp. (deg R):	543.72
Daily Min. Liquid Surface Temp. (deg R):	533.91
Daily Max. Liquid Surface Temp. (deg R):	553.53
Daily Ambient Temp. Range (deg.R):	16.50

Annual Emission Calculations

Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.999903
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.000105
Vapor Space Outage (ft):	17.48
Withdrawal Losses (lb):	9.1839
Vapor Molecular Weight (lb/lb-mole):	190.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.000105
Annual Net Throughput (gal/yr):	51091635
Turnover Factor:	0.3784
Maximum Liquid Volume (cuft):	48195
Maximum Liquid Height (ft):	29
Tank Diameter (ft):	46
Working Loss Product Factor:	1.00
Total Losses (lb):	11.80

Annual Emissions Report

Liquid Contents	Losses (lbs.): Standing	Withdrawal	Total
Residual oil no. 6	2.62	9.18	11.80
Total:	2.62	9.18	11.80

TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

Identification

Identification No.:	10
City:	Lake Worth
State:	FL
Company:	CITY OF LW/TOM G. SMITH PLANT
Type of Tank:	Horizontal Fixed Roof

Tank Dimensions

Shell Length (ft):	31
Diameter (ft):	11
Volume(gallons):	20134
Is tank underground? (Y/N):	N
Turnovers:	164
Net Throughput (gal/yr):	3299963

Paint Characteristics

Shell Color/Shade:	Gray/Medium
Shell Condition:	Good

Breather Vent Settings

Vacuum Setting (psig):	-0.04
Pressure Setting (psig):	0.04

Meteorological Data Used in Emission Calculations: West Palm Beach, Florida

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	84.05	74.24	93.86	77.68	0.0138	0.0102	0.0185	130.000			130.00	Option 4: A=12.1010, B=8907.0

Annual Emission Calculations

Standing Losses (lb):	14.1195
Vapor Space Volume (cu ft):	1871.68
Vapor Density (lb/cu ft):	0.0003
Vapor Space Expansion Factor:	0.067321
Vented Vapor Saturation Factor:	0.995983
Tank Vapor Space Volume	
Vapor Space Volume (cu ft):	1871.68
Tank Diameter (ft):	11
Effective Diameter (ft):	21
Vapor Space Outage (ft):	5.50
Tank Shell Height (ft):	31
Vapor Density	
Vapor Density (lb/cu ft):	0.0003
Vapor Molecular Weight (lb/lb-mole):	130.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Daily Avg. Liquid Surface Temp. (deg R):	543.72
Daily Average Ambient Temp. (deg. R):	534.27
Ideal Gas Constant R (psia cuft /(lb-mole-deg R)):	10.731
Liquid Bulk Temperature (deg R):	537.35
Tank Paint Solar Absorptance:	0.68
Daily Total Solar Insolation Factor (Btu/sqftday):	1438.00
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.067321
Daily Vapor Temperature Range (deg R):	39.26
Daily Vapor Pressure Range (psia):	0.008256
Breather Vent Press. Setting Range(psia):	0.08
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.010239
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.018495
Daily Avg. Liquid Surface Temp. (deg R):	543.72
Daily Min. Liquid Surface Temp. (deg R):	533.91
Daily Max. Liquid Surface Temp. (deg R):	553.53
Daily Ambient Temp. Range (deg.R):	16.50

DETAIL CALCULATIONS (AP-42), CONT.

Annual Emission Calculations

Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.995983
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Vapor Space Outage (ft):	5.50
Withdrawal Losses (lb):	49.4186
Vapor Molecular Weight (lb/lb-mole):	130.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Annual Net Throughput (gal/yr):	3299963
Turnover Factor:	0.3497
Tank Diameter (ft):	11
Working Loss Product Factor:	1.00
Total Losses (lb):	63.54

Annual Emissions Report

Liquid Contents	Losses (lbs.): Standing	Withdrawal	Total
Distillate fuel oil no. 2	14.12	49.42	63.54
Total:	14.12	49.42	63.54

TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

Identification

Identification No.:	11
City:	Lake Worth
State:	FL
Company:	CITY OF LW/TOM G. SMITH PLANT
Type of Tank:	Horizontal Fixed Roof

Tank Dimensions

Shell Length (ft):	31
Diameter (ft):	11
Volume(gallons):	20134
Is tank underground? (Y/N):	N
Turnovers:	164
Net Throughput (gal/yr):	3299963

Paint Characteristics

Shell Color/Shade:	Gray/Medium
Shell Condition:	Good

Breather Vent Settings

Vacuum Setting (psig):	-0.04
Pressure Setting (psig):	0.04

Meteorological Data Used in Emission Calculations: West Palm Beach, Florida

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	84.05	74.24	93.86	77.68	0.0138	0.0102	0.0185	130.000			130.00	Option 4: A=12.1010, B=8907.0

Annual Emission Calculations

Standing Losses (lb):	14.1195
Vapor Space Volume (cu ft):	1871.68
Vapor Density (lb/cu ft):	0.0003
Vapor Space Expansion Factor:	0.067321
Vented Vapor Saturation Factor:	0.995983
Tank Vapor Space Volume	
Vapor Space Volume (cu ft):	1871.68
Tank Diameter (ft):	11
Effective Diameter (ft):	21
Vapor Space Outage (ft):	5.50
Tank Shell Height (ft):	31
Vapor Density	
Vapor Density (lb/cu ft):	0.0003
Vapor Molecular Weight (lb/lb-mole):	130.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Daily Avg. Liquid Surface Temp. (deg R):	543.72
Daily Average Ambient Temp. (deg. R):	534.27
Ideal Gas Constant R (psia cuft /(lb-mole-deg R)):	10.731
Liquid Bulk Temperature (deg R):	537.35
Tank Paint Solar Absorptance:	0.68
Daily Total Solar Insolation Factor (Btu/sqftday):	1438.00
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.067321
Daily Vapor Temperature Range (deg R):	39.26
Daily Vapor Pressure Range (psia):	0.008256
Breather Vent Press. Setting Range(psia):	0.08
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.010239
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.018495
Daily Avg. Liquid Surface Temp. (deg R):	543.72
Daily Min. Liquid Surface Temp. (deg R):	533.91
Daily Max. Liquid Surface Temp. (deg R):	553.53
Daily Ambient Temp. Range (deg.R):	16.50

DETAIL CALCULATIONS (AP-42), CONT.

Annual Emission Calculations

Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.995983
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Vapor Space Outage (ft):	5.50
Withdrawal Losses (lb):	49.4186
Vapor Molecular Weight (lb/lb-mole):	130.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Annual Net Throughput (gal/yr):	3299963
Turnover Factor:	0.3497
Tank Diameter (ft):	11
Working Loss Product Factor:	1.00
Total Losses (lb):	63.54

Annual Emissions Report

Liquid Contents	Losses (lbs.): Standing	Withdrawal	Total
Distillate fuel oil no. 2	14.12	49.42	63.54
Total:	14.12	49.42	63.54

TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

Identification

Identification No.:	12
City:	Lake Worth
State:	FL
Company:	CITY OF LW/TOM G. SMITH PLANT
Type of Tank:	Vertical Fixed Roof

Tank Dimensions

Shell Height (ft):	22
Diameter (ft):	33
Liquid Height (ft):	20
Avg. Liquid Height (ft):	10
Volume (gallons):	127975
Turnovers:	156
Net Throughput (gal/yr):	19900113

Paint Characteristics

Shell Color/Shade:	Gray/Medium
Shell Condition:	Good
Roof Color/Shade:	Gray/Medium
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft):	1.03
Radius (ft) (Dome Roof):	0.00
Slope (ft/ft) (Cone Roof):	0.0625

Breather Vent Settings

Vacuum Setting (psig):	0.00
Pressure Setting (psig):	0.00

Meteorological Data Used in Emission Calculations: West Palm Beach, Florida

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	84.05	74.24	93.86	77.68	0.0138	0.0102	0.0185	130.000			130.00	Option 4: A=12.1010, B=8907.0

Annual Emission Calculations

Standing Losses (lb):	85.6591
Vapor Space Volume (cu ft):	10557.50
Vapor Density (lb/cu ft):	0.0003
Vapor Space Expansion Factor:	0.072768
Vented Vapor Saturation Factor:	0.991031
Tank Vapor Space Volume	
Vapor Space Volume (cu ft):	10557.50
Tank Diameter (ft):	33
Vapor Space Outage (ft):	12.34
Tank Shell Height (ft):	22
Average Liquid Height (ft):	10
Roof Outage (ft):	0.34
Roof Outage (Cone Roof)	
Roof Outage (ft):	0.34
Roof Height (ft):	1.031
Roof Slope (ft/ft):	0.06248
Shell Radius (ft):	17
Vapor Density	
Vapor Density (lb/cu ft):	0.0003
Vapor Molecular Weight (lb/lb-mole):	130.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Daily Avg. Liquid Surface Temp.(deg. R):	543.72
Daily Average Ambient Temp. (deg. R):	534.27
Ideal Gas Constant R (psia cuft /(lb-mole-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	537.35
Tank Paint Solar Absorptance (Shell):	0.68
Tank Paint Solar Absorptance (Roof):	0.68
Daily Total Solar Insolation Factor (Btu/sqftday):	1438.00
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.072768
Daily Vapor Temperature Range (deg.R):	39.26
Daily Vapor Pressure Range (psia):	0.008256
Breather Vent Press. Setting Range(psia):	0.00
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.010239
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.018495
Daily Avg. Liquid Surface Temp. (deg R):	543.72
Daily Min. Liquid Surface Temp. (deg R):	533.91
Daily Max. Liquid Surface Temp. (deg R):	553.53
Daily Ambient Temp. Range (deg.R):	16.50

Annual Emission Calculations
Vented Vapor Saturation Factor

Vented Vapor Saturation Factor:	0.991031
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Vapor Space Outage (ft):	12.34
Withdrawal Losses (lb):	306.4235
Vapor Molecular Weight (lb/lb-mole):	130.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.013834
Annual Net Throughput (gal/yr):	19900113
Turnover Factor:	0.3596
Maximum Liquid Volume (cuft):	17106
Maximum Liquid Height (ft):	20
Tank Diameter (ft):	33
Working Loss Product Factor:	1.00
Total Losses (lb):	392.08

Annual Emissions Report

Liquid Contents	Losses (lbs.): Standing	Withdrawal	Total
Distillate fuel oil no. 2	85.66	306.42	392.08
Total:	85.66	306.42	392.08

TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

Identification
- Identification No.: DISPOSALLO
- City: Lake Worth
- State: FL
- Company: CITY OF LW/TOM G. SMITH PALNT
- Type of Tank: Horizontal Fixed Roof

Tank Dimensions
- Shell Length (ft): 11
- Diameter (ft): 4
- Volume(gallons): 947
- Is tank underground? (Y/N): N
- Turnovers: 0
- Net Throughput (gal/yr): 284

Paint Characteristics
- Shell Color/Shade: Red/Primer
- Shell Condition: Good

Breather Vent Settings
- Vacuum Setting (psig): 0.00
- Pressure Setting (psig): 0.00

Meteorological Data Used in Emission Calculations: West Palm Beach, Florida

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Residual oil no. 6	All	87.14	75.21	99.07	78.94	0.0001	0.0001	0.0002	190.000			190.00	Option 4: A=10.1040, B=10475.0

Annual Emission Calculations

Standing Losses (lb):	0.0106
Vapor Space Volume (cu ft):	87.82
Vapor Density (lb/cu ft):	0.0000
Vapor Space Expansion Factor:	0.087258
Vented Vapor Saturation Factor:	0.999988
Tank Vapor Space Volume	
Vapor Space Volume (cu ft):	87.82
Tank Diameter (ft):	4
Effective Diameter (ft):	7
Vapor Space Outage (ft):	2.00
Tank Shell Height (ft):	11
Vapor Density	
Vapor Density (lb/cu ft):	0.0000
Vapor Molecular Weight (lb/lb-mole):	190.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.000117
Daily Avg. Liquid Surface Temp. (deg R):	546.81
Daily Average Ambient Temp. (deg. R):	534.27
Ideal Gas Constant R (psia cuft /(lb-mole-deg R)):	10.731
Liquid Bulk Temperature (deg R):	538.61
Tank Paint Solar Absorptance:	0.89
Daily Total Solar Insolation Factor (Btu/sqftday):	1438.00
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.087258
Daily Vapor Temperature Range (deg R):	47.71
Daily Vapor Pressure Range (psia):	0.000100
Breather Vent Press. Setting Range(psia):	0.00
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.000117
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.000076
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.000176
Daily Avg. Liquid Surface Temp. (deg R):	546.81
Daily Min. Liquid Surface Temp. (deg R):	534.88
Daily Max. Liquid Surface Temp. (deg R):	558.74
Daily Ambient Temp. Range (deg.R):	16.50

DETAIL CALCULATIONS (AP-42), CONT.

Annual Emission Calculations

Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.999988
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.000117
Vapor Space Outage (ft):	2.00
Withdrawal Losses (lb):	0.0002
Vapor Molecular Weight (lb/lb-mole):	190.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.000117
Annual Net Throughput (gal/yr):	284
Turnover Factor:	1.0000
Tank Diameter (ft):	4
Working Loss Product Factor:	1.00
Total Losses (lb):	0.01

Annual Emissions Report

Liquid Contents	Losses (lbs.): Standing	Withdrawal	Total
Residual oil no. 6	0.01	0.00	0.01
Total:	0.01	0.00	0.01

TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

Identification

Identification No.:	OVERHAULLO
City:	Lake Worth
State:	FL
Company:	CITY OF LW/TOM G. SMITH PLANT
Type of Tank:	Horizontal Fixed Roof

Tank Dimensions

Shell Length (ft):	16
Diameter (ft):	7
Volume(gallons):	5000
Is tank underground? (Y/N):	N
Turnovers:	1
Net Throughput (gal/yr):	2500

Paint Characteristics

Shell Color/Shade:	Red/Primer
Shell Condition:	Good

Breather Vent Settings

Vacuum Setting (psig):	-0.07
Pressure Setting (psig):	0.27

Meteorological Data Used in Emission Calculations: West Palm Beach, Florida

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Residual oil no. 6	All	87.14	75.21	99.07	78.94	0.0001	0.0001	0.0002	190.000			190.00	Option 4: A=10.1040, B=10475.0

Annual Emission Calculations

Standing Losses (lb):	0.0347
Vapor Space Volume (cu ft):	391.20
Vapor Density (lb/cu ft):	0.0000
Vapor Space Expansion Factor:	0.064129
Vented Vapor Saturation Factor:	0.999978
Tank Vapor Space Volume	
Vapor Space Volume (cu ft):	391.20
Tank Diameter (ft):	7
Effective Diameter (ft):	12
Vapor Space Outage (ft):	3.50
Tank Shell Height (ft):	16
Vapor Density	
Vapor Density (lb/cu ft):	0.0000
Vapor Molecular Weight (lb/lb-mole):	190.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.000117
Daily Avg. Liquid Surface Temp. (deg R):	546.81
Daily Average Ambient Temp. (deg. R):	534.27
Ideal Gas Constant R (psia cuft /(lb-mole-deg R)):	10.731
Liquid Bulk Temperature (deg R):	538.61
Tank Paint Solar Absorptance:	0.89
Daily Total Solar Insolation Factor (Btu/sqftday):	1438.00
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.064129
Daily Vapor Temperature Range (deg R):	47.71
Daily Vapor Pressure Range (psia):	0.000100
Breather Vent Press. Setting Range(psia):	0.34
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.000117
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.000076
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.000176
Daily Avg. Liquid Surface Temp. (deg R):	546.81
Daily Min. Liquid Surface Temp. (deg R):	534.88
Daily Max. Liquid Surface Temp. (deg R):	558.74
Daily Ambient Temp. Range (deg.R):	16.50

DETAIL CALCULATIONS (AP-42), CONT.

Annual Emission Calculations

Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.999978
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.000117
Vapor Space Outage (ft):	3.50
Withdrawal Losses (lb):	0.0013
Vapor Molecular Weight (lb/lb-mole):	190.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.000117
Annual Net Throughput (gal/yr):	2500
Turnover Factor:	1.0000
Tank Diameter (ft):	7
Working Loss Product Factor:	1.00
Total Losses (lb):	0.04

Annual Emissions Report

Liquid Contents	Losses (lbs.): Standing	Withdrawal	Total
Residual oil no. 6	0.03	0.00	0.04
Total:	0.03	0.00	0.04

ATTACHMENT G

PROPOSED EXEMPT ACTIVITIES

ATTACHMENT G

PROPOSED EXEMPT ACTIVITIES

All activities are exempt based on trivial list in EPA white paper (attached)

POWER GENERATION FACILITY:

General Facility Activities

1 Fire Protection System
Painting Building & Structures Using Latex Paint

Units Within S-1

3 Machine Shop Gas Bottles - O_2
3 Machine Shop Gas Bottles - Acetylene
1 Contained Sand Blaster
2 Grinders
2 Drill Press
1 Lathe
4 Fire Extinguisher
9 Gas Bottles N_2
2 Gas Bottles O_2
1 Gas Bottles Argon
1 Steam Jet Air Ejector Vent
2 Steam Drum Safety Relief Vent's
1 Steam Drum Vent
1 Superheater with 1 Safety Relief Vent
5 Air Compressors
1 Instrument Air Receiver Tank with 1 Safety Relief Vent
1 House Air Receiver Tank with 1 Safety Relief Vent
1 Portable Oil/Water Centrifuge with Vent
1 Mini Oil Water Separator with Vent
1 Turbine Lube Oil Tank Vapor Vent
Batteries
1 Small Water Treatment Tank
2 Feed Water Heaters with 4 Safety Relief Vents
2 Boiler Feed Pump Vents
1 Chemical Treatment Tank
1 Sump Flash Tank
1 Natural Gas Vent
1 Condensate Storage Tank Vent
1 Condensate Storage Tank Safety Relief Vent
1 Deaerator Tank Vent
1 Deaerator Tank Safety Relief Vent
2 High Pressure Feed Water Heaters, 1 Safety Relief Vent each Heater
1 Gland Seal Tank Vapor Extractor

ATTACHMENT G

PROPOSED EXEMPT ACTIVITIES

Units Within S-3

	Water Pre-Treatment System
4	Demineralizers
6	CO_2, H_2 Bottles
1	Seal Oil System - H_2 Vent
4	Condenser Water Box Vents
1	Lube Oil Filter Vapor Extractor
1	Turbine Lube Oil Tank Vapor Extractor
2	Boiler Feed Pump Vents
1	"Sulphite Amine-Eliminox S-3B" 45 Gal. Water Treatment Tank
8	Fire Extinguisher
	Batteries
1	Gland Seal System Vapor Extractor
1	Hydrogen Moisture Removal High Level Drains
	Building Vents
3	Feed Water Heater with Steam-Side and Water Side Safety Relief Valves and Vents
1	Steam-Jet Air Ejector
2	Air Filters with Pressure Relief Vents
1	Natural Gas Pressure Relief Vent with Regulating Relief Valve and Bleed Vent
3	2% O_2 Nitrogen Balance Bottles
1	Flash Tank
1	Condensate Tank with Pressure Relief Valve and Vent
2	Dust Collector Hopper Discharge Valve
1	Steam Drum with 2 Safety Relief Valves and 1 Vent
1	Superheater Header with Safety Relief Valve
1	Deaerator with 2 Safety Relief Valves and 1 Vent
1	Demineralized Water Storage Tank Vent
1	Superheater Header Vent
1	Steam Safety Relief Vent
1	Seal Oil System Vent
1	Seal Oil Vapor Extractor
1	Lube Oil Filter Vapor Extractor
1	Lube Oil Tank Vapor Extractor
1	Gland Seal Exhauster

ATTACHMENT G

PROPOSED EXEMPT ACTIVITIES

Units Within S-4

2	Drum Safety Relief Valves (Safety Relief Vent's) - Silencers & Stacks
1	Superheater Safety Relief Valves - Silencers & Stacks
1	Superheater Vent - Silencers & Stacks
	Superheater Outlet Header Drain (Double-Valved)
2	Deaerator Safety Relief Valves
1	Deaerator Vent Valve
2	Superheater Header Vents (Assumed)
3	Fire Extinguisher
1	Condensate Storage Tank Vent
1	Demineralized Storage Tank Vent
4	Flame Scanner Air Vents
2	Safety Relief Vent's (Auxiliary Steam Line)
3	Feedwater Heaters with Steam Side and Water Side Safety Relief Valves and Vents
1	Flash Tank and Vent
2	Auxiliary Steam System Vents
1	Steam Jet Air Ejector Vent
4	Condenser Water Box Vents
1	Lube Oil Filter Vapor Extractor
1	Lube Oil Tank Vapor Extractor
1	Seal Oil Tank Vapor Extractor
2	BFP Vents
2	Natural Gas Vents
	CO_2, H_2 Vents - (top & bottom generator vents
	CO_2 Fan Vent - (top & bottom generator vents)
1	Gland Seal
1	Air Compressor
2	Air Receiver Tanks
	Incoming Natural Gas Supply Station
1	Regulating Vent
1	Safety Relief Vent - 2 Vents

ATTACHMENT G

PROPOSED EXEMPT ACTIVITIES

Units Within S-5

1	Flash Tank
4	Gas Cylinders N_2
2	Natural Gas Intake Header with 1 Safety Relief Vent and 1 Plugged Drain
3	Fire Extinguisher
2	Boiler Feed Pump Vents
1	Lube Oil Filter Vapor Extractor
1	Gland Seal Vapor Extractor
2	Chemical Mixing Tanks - Not Sealed
4	Water Treatment Tanks - 1 Vent each Demineralizer, Carbon Filter, Anion, Cation
2	Condenser Water Box
1	Service Air Receiver Vent
1	Service Air Receiver Safety Relief Vent
1	Instrument Air Receiver Vent
1	Instrument Air Receiver Safety Relief Vent
1	Steam-Jet Air Ejector Vent
1	Condensate Storage Tank Vent
1	Demineralized Water Storage Tank Vent
2	High Pressure Steam Drum Safety Relief Vent
1	High Pressure Steam Drum Vent
2	Low Pressure Steam Drum Safety Relief Vent
1	Low Pressure Steam Drum Vent
2	Deaerator Safety Relief Vent's
1	Deaerator Orifice Vent
3	Roof Vents
1	Main Steam Safety Relief Vent (from steam drum)
1	Bathroom Vent
1	Turbine Lube Oil Tank Vapor Extractor
	Batteries
1	5000 gal Caustic Storage Tank
1	5000 gal Sulfuric Acid Storage Tank

Units Within CGT - 1

1	Instrument Air Receiver with 1 Safety Relief Vent
	Halon 1301 Freon FE 1301 Fire Protection System Monobromo Trifluoromethane, Spherical Tanks
1	Lube Oil Tank Vapor Extractor
1	Mechanical Enclosure Vent Fan
1	Turbine Enclosure Vent Fan

ATTACHMENT G

PROPOSED EXEMPT ACTIVITIES

Units Within CGT-2

2	Inlet Filter Inertial Separator Vents
2	Fire Extinguisher
1	Air Conditioner
1	Lube Oil/Gear Reducer Vapor Extractor Stack - Turbine Top
2	Pressurized Air
1	Diesel Engine Exhaust

Units Within MU 1 - 5

10	Fire Extinguisher
2	Sumps
1	Oil Water Separator Vent

Units Within Mechanical Parts Warehouse

	Solvent Storage in Black Cabinet
	Spray Paint in Black Cabinet
	Grease Solvent in Black Cabinet
	Flux in Black Cabinet
1	Welder
5	Fire Extinguisher
5	O_2, Acetylene Tanks
1	Bucket of Asbestos Sealer
	Bags of Adsorbent
4	Buckets of Hydraulic Cement
3	Drums of 90 Wt Gear Oil
1	Welder
1	Liquid Propane Gas Cylinder

ATTACHMENT G

PROPOSED EXEMPT ACTIVITIES

Units Within Western Plant Area

S-5 Cooling Tower
S-5 Chemical Building
1 Nalco 7330 Biocide Drum
1 Sulfuric Acid Drum
No. 2 and No. 5 Containment Area
2 Sumps
1 Oil Water Separator with Vent
Hydrogen Building with Vent
Chemical Storage Area
Sealed Drums of Lubricants, Solvents and etc.
S-1 Cooling Tower
S-1 Chlorine Building with Vent
S-3 Chlorine Building with Vent
2200 Gal Sodium Hypochlorite Tank with Safety Relief Vent
S-3 Boiler Water Tank with Vent
Motor Vehicles
Trucks
Bobcats
Natural Gas Piping and Fittings

WATER TREATMENT FACILITY:

Lime Unloading System
Percolation Pond Solids Loading
Anhydrous Ammonia Storage Tank with 2 Safety Relief Vent's
16 Chlorine Gas Cylinders
1 Water Tank with Vent
4 Water Reservoir Vents
Water Settling Bays
Water Treatment Bldg.
Storage Room
Paint Cans
Solvents
Absorbents
2 Lawn Mowers
1 Weed Wacker
Fertilizer
Machine Shop
1 Grinder
1 Drill Press
1 Air Conditioner

ATTACHMENT G

PROPOSED EXEMPT ACTIVITIES

1	Kitchen Vent
1	Lab Hood Vent
6	Chlorine Cylinders
	Phosphate Room
1	Phosphate Tank
1.3	Pallets of Scale Inhibitor
3	Lime Slakers
1	Polymer Mixing Tank - 1268 Gal.
3	Air Conditioners
1	Fire Extinguisher
1	Vacuum Lime Conveyor

Dispatch Center

2	Liquid Propane Gas Emergency Generators
	storage tank and piping system
1	Blue Print Operations

ATTACHMENT A

LIST OF ACTIVITIES THAT MAY BE TREATED AS "TRIVIAL"

The following types of activities and emissions units may be presumptively omitted from part 70 permit applications. Certain of these listed activities include qualifying statements intended to exclude many similar activities.

Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.

Air-conditioning units used for human comfort that do not have applicable requirements under title VI of the Act.

Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manufacturing/industrial or commercial process.

Non-commercial food preparation.

Consumer use of office equipment and products, not including printers or businesses primarily involved in photographic reproduction.

Janitorial services and consumer use of janitorial products.

Internal combustion engines used for landscaping purposes.

Laundry activities, except for dry-cleaning and steam boilers.

Bathroom/toilet vent emissions.

Emergency (backup) electrical generators at residential locations.

Tobacco smoking rooms and areas.

Blacksmith forges.

Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not

otherwise triggering a permit modification.[1]

Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.

Portable electrical generators that can be moved by hand from one location to another[2].

Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.

Brazing, soldering and welding equipment, and cutting torches related to manufacturing and construction activities that do not result in emission of HAP metals.[3]

Air compressors and pneumatically operated equipment, including hand tools.

Batteries and battery charging stations, except at battery manufacturing plants.

Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP.[4]

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[1]Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise required.

[2]"Moved by hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.

[3]Brazing, soldering and welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals are more appropriate for treatment as insignificant activities based on size or production level thresholds. Brazing, soldering, welding and cutting torches directly related to plant maintenance and upkeep and repair or maintenance shop activities that emit HAP metals are treated as trivial and listed separately in this appendix.

[4]Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.

Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.

Equipment used to mix and package, soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.

Drop hammers or hydraulic presses for forging or metalworking.

Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.

Vents from continuous emissions monitors and other analyzers.

Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.

Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.

Equipment used for surface coating, painting, dipping or spraying operations, except those that will emit VOC or HAP.

CO_2 lasers, used only on metals and other materials which do not emit HAP in the process.

Consumer use of paper trimmers/binders.

Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.

Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants.

Laser trimmers using dust collection to prevent fugitive emissions.

Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents.[5]

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[5]Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.

Routine calibration and maintenance of laboratory equipment or other analytical instruments.

Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.

Hydraulic and hydrostatic testing equipment.

Environmental chambers not using hazardous air pollutant (HAP) gasses.

Shock chambers.

Humidity chambers.

Solar simulators.

Fugitive emission related to movement of passenger vehicles, provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.

Process water filtration systems and demineralizes.

Demineralized water tanks and demineralizer vents.

Boiler water treatment operations, not including cooling towers.

Oxygen scavenging (de-aeration) of water.

Ozone generators.

Fire suppression systems.

Emergency road flares.

Steam vents and safety relief valves.

Steam leaks.

Steam cleaning operations.

Steam sterilizers.

ATTACHMENT H

ALTERNATE MODES OF OPERATION
(EMISSION TRADING)

ATTACHMENT H

ALTERNATE MODES OF OPERATION

The City of Lake Worth request the approval of an Alternative Mode of Operation for Steam Units 3 and 4. These two units are subject to the Federal Acid Rain Program, Phase II, limiting the total annual tons of SO2 emissions to the total number of allowances allocated to and obtained by the City of Lake Worth.

A. Emission Units Subject to Trading: Steam Units 3 and 4
B. Air Pollutant of Concern: Sulfur Dioxide
C. Compliance Method: Continuous Emissions Monitors

ATTACHMENT I

COMPLIANCE REPORT

ATTACHMENT I
LAKE WORTH UTILITIES
TITLE V APPLICATION
COMPLIANCE REPORT

Lake Worth Utilities is in compliance with the applicable requirements listed in the facility specific and emission unit specific permit application.

In summary:

This permit application for the initial Title V permit application is being submitted prior to the 06/15/96 deadline.

There have been no modifications to this facility which would require changes to any current permit conditions.

The facility has adhered to all current permit conditions.

The test notification and reporting requirements of the current permit have been met. The required annual visible emissions tests have been performed as required by the current permit and all levels are within the permitted limit. The fuel sampling analysis were conducted and the percent sulfur for S-3 and S-4 are less than the 2.25% sulfur limit. The percent sulfur within CC1's fuel was less than the 0.35%S limit.

Compliance with the NOx RACT emission limits have been demonstrated through stack test data. The data indicated that the diesels are in compliance with the 4.75 lb/MMBTU limit, the combustion turbines are in compliance with the 0.9 lb/MMBTU limit when firing oil (GT2 & CC1) and 0.50 lb/ MMBTU when firing natural gas (CC1) and the boilers are in compliance with the 0.50 lb/ MMBTU limit.

The Annual Operating Report (AOR) for the calendar year 1995 was submitted on February 25, 1996.

The annual compliance statement is in Attachment J. It will be submitted Annually with the AOR.

ATTACHMENT J

COMPLIANCE STATEMENT

ATTACHMENT J
LAKE WORTH UTILITIES
TITLE V APPLICATION
COMPLIANCE STATEMENT

I, the undersigned, am the responsible official as defined in Chapter 62-213, F.A.C., of Lake Worth Utilities, a Title V source, for which this report is being submitted. I hereby certify, based on the information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate, and complete. To the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. Further, I agree to operate and maintain the air pollutant emissions units and air pollution control equipment described in this application 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.

Signature

6/12/96
Date

ATTACHMENT K

ADDITIONAL APPLICABLE REQUIREMENTS

State of Florida Department of Environmental Regulation
Lake Worth Utilities Authority
Unit S-5
Case No. PA-74-05
CONDITIONS OF CERTIFICATION (Proposed 11-19-75)

GENERAL

Table of Contents

State of Florida Department of Environmental Regulation
Lake Worth Utilities Authority
Unit S-5
Case No. PA-74-05
CONDITIONS OF CERTIFICATION (Proposed 11-19-75)

GENERAL

1. Change in Discharge

All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge of any pollutant not identified in the application, or more frequent than, or at a level in excess of that authorized herein, shall constitute a violation of the certification. Any anticipated facility expansions, production increases, or process modifications which will result in new, different or increased discharges of pollutants or expansion in steam generating capacity must be reported by submission of a new application.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any limitation specified in this certification, the permittee shall notify the Central and Southern District Manager of the Department by telephone during the working day that said noncompliance occurs and shall confirm this in writing within seventy-two (72) hours of becoming aware of such conditions, and shall supply the following information:

a. A description of the discharge and cause of non-compliance; and

b. The period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

3. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this certification.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact resulting from noncompliance with any limitation specified in this certification, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Right of Entry

The permittee shall allow the Secretary of the Florida Department of Environmental Regulation and/or authorized representatives, upon the presentation of credentials:

a. To enter upon the permittee's premises where an effluent source is located or in which records are required to be kept under the terms and conditions of this permit; and

b. To have access to and copy any records required to be kept under the conditions of this certification; and

c. To inspect any monitoring equipment or monitoring method required in this certification and to sample any discharge or pollutants.

6. Revocation or Suspension

This certification may be suspended or revoked pursuant to Section 403.512, Chapter 403, Florida Statutes, or for violations of any General or Special Conditions.

7. Civil and Criminal Liability

This certification does not relieve the permittee from civil or criminal penalties for noncompliance with any condition of this certification, applicable rules or regulations of the Department or Chapter 403, Florida Statutes, or regulations there under.

Subject to 403.511 this certification shall not preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other applicable State Statutes, or regulations.

8. Property Rights

The issuance of this certification does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. The applicant will obtain title, lease or right of use from the State of Florida, to any sovereign submerged lands occupied by intake or discharge structures.

9. Severability

The provisions of this certification are severable, and if any provision of this certification or the application of any pro0 vision of this certification to any circumstances, is held invalid, the application of such provision to other circumstances and the remainder of the certification shall not be affected thereby.

10. Pollutants

If any applicable state effluent or emission standard or prohibition (including any schedule of compliance specified in such effluent or emission standard or prohibition) is established for a pollutant which is in this certification and such standard or prohibition is more stringent than any limitation for such pollutant in this certification, this certification shall be revised in accordance with the new effluent or emission standard or prohibition and the permittee so notified, unless a variance is or has been obtained pursuant to Chapter 403, Florida Statutes. In the application of such later adopted standards this paragraph shall not be considered in determining whether or not the Unit S-5 is classified as a new source or as an existing source if such distinction is made within the later adopted standard.

11. Review of Site Certification

The certification shall be final unless revoked or suspended pursuant to law. Five years from the date of issuance of any National Pollutant Discharge Elimination System Permit issued pursuant to the Federal Water Pollution Control Act Amendments of 1972, for the plant units, the Department shall review all monitoring data that has been submitted to it during the preceding five year period for the purpose of determining the extent of the permittee's compliance with the conditions of this certification and the environmental impact of this facility. The Department shall submit the results of its review and recommendations to the Permittee and all parties of record in this certification proceeding. This review will be repeated every five years thereafter.

12. Modifications of Special Conditions

The Department may modify the provisions of the special conditions dealing with sampling, monitoring, reporting, and specifications for control equipment or related time schedules as necessary to attain the objectives of Chapter 403, F.S., upon mutual agreement with the applicant. Such modifications and agreement shall be in writing. Such modifications will not take effect until after notice to all parties of record and until after a public notice giving a period of thirty days for public review and comment. The Secretary shall provide opportunity for a public hearing on the proposed modifications prior to taking final agency action.

State of Florida Department of Environmental Regulation
Lake Worth Utilities Authority
Unit S-5
Case No. PA 74-05
CONDITIONS OF CERTIFICATION (Proposed 11-18-75)

SPECIAL

Table of Contents

State of Florida Department of Environmental Regulation
Lake Worth Utilities Authority
Unit S-5
Case No. PA 74-05
CONDITIONS OF CERTIFICATION (Proposed 11-18-75)

SPECIAL

I. Air

The construction and operation of the Unit S-5 shall be in compliance with all applicable provisions of Chapters 17-2, 17-5 and 17-7, Florida Administrative Code, and the permittee shall comply with the following conditions of certification:

1. Fuel consumed should contain not more than 2.25% sulfur in Units S-3 and S-4 nor more than 0.35% sulfur in Unit S-5.

2. The boiler exhaust stack shall be not less than 75 feet above grade.

3. The permittee shall provide sampling ports into the stack and will provide access to the sampling ports by a ladder and platform or by temporary means as well as such temporary facilities as may be requested by the Department of Environmental Regulation in order that stack sampling may be accomplished.

4. The permittee shall install and operate continuous monitoring devices on the stack for sulfur dioxide, opacity and nitrogen oxides. Records of such monitoring shall be available for inspection. Calculation of SO_2 emissions in accordance with the procedures outlined in Section 60.45, of 40 CFR, Part 60, may be utilized instead of the continuous SO_2 monitor.

5. The permittee shall install and operate two ambient air monitoring devices for sulfur dioxide and two particulate samplers. The location of these ambient air samplers shall be as determined by the Palm Beach County Health Department, Division of Environmental Sciences and Engineering. The data collected will be reported to the County Health Department quarterly by the 20th of each subsequent month. The permittee shall institute the monitoring program one year prior to operation of Unit S-5.

6. The permittee shall maintain an hourly log of fuels used and copies of fuel analyses containing information of sulfur content and heating value to enable calculations of emissions.

II. Water

A. Pretreatment Standards

Wastewater discharged from Unit S-5 to the Lake Worth municipal sewerage system shall comply with Annex III of the Sewer Service Agreement between the Lake Worth Utilities Authority and the City of West Palm Beach and the pretreatment standards for new sources as contained in 40 CFR, Part 423.16 and amendments. The latter is set forth as follows:

EPA Pretreatment Standards and Standards of Performance for New Sources

Parameter	Avg. 30-Day, Daily Value
a) Low Volume Waste (40 CFR, Part 423.15(c))	
(ion exchange water treatment systems, floor drainage, sample drains, cooling tower basin cleaning wastes, and similar wastes)	
TSS	30 mg/l
Oil and Grease	15 mg/l
b) Metal Cleaning Wastes (40 CFR, Part 423.15(f))	
TSS	30 mg/l
Oil and Grease	15 mg/l
Copper, Total	1.0 mg/l
Iron, Total	1.0 mg/l
c) Boiler Blowdown (40 CFR, Part 423.15(g))	
Same limits as for b) Metal Cleaning Wastes.	
d) Cooling Tower Blowdown (40 CFR, Part 423.15(i))	
Zinc	no detectable amount
Chromium	no detectable amount
Materials for corrosion inhibition	no detectable amount

e) The pH of all discharges shall be within the range of 6.0 - 9.0.

f) There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid, or other toxic substances.

B. In-Plant Water Monitoring Program

A monitoring program shall be undertaken by the Lake Worth Utilities Authority on the effluent streams within the facility to determine compliance by Unit S-5 with the applicable pretreatment standards.

III. Stormwater Runoff

During construction and operation, necessary measures shall be employed to settle, filter or absorb silt so that the runoff shall not exceed 50 mg/l of suspended solids. Such measures may include sediment traps, barriers and the use of berms or vegetation. Exposed or disturbed soil shall be sodded as soon as possible to minimize silt and sediment runoff into waters of the State.

IV. Solid Wastes

Solid wastes generated by the construction or operation of the facility shall be handled and disposed of in conformance with Chapter 17-7, FAC. Open burning will not be allowed.

V. Special Study

The Lake Worth Utilities Authority shall conduct a special study and furnish to the Department by January 31, 1977; a contingency plan to increase the intertie capability with Florida Power and Light Company in order to produce a source of electricity in the event that gaseous or liquid fuels become uneconomical or unavailable for continued operation of Unit S-5 in compliance with the conditions of certification.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In Re:
City of Lake Worth
Unit S-5
Modification of Certification
No. PA 74-05
Palm Beach County, Florida

FINAL ORDER MODIFYING CONDITIONS OF CERTIFICATION

On July 17, 1987, the City of Lake Worth submitted a proposed agreement to modify the Conditions of Certification for Unit S-5, to allow a change in the continuous air emissions monitoring procedures.

This proposed agreement was submitted pursuant to Section 403.516(1), F.S., and General Condition 12 of the Conditions of Certification, which delegated modifications of sampling, monitoring and reporting conditions to the Department.

On August 5, 1987, a Notice of Proposed Agency Action was served on all parties with a provision that a hearing would be held if requested on or before September 21, 1987. No hearing was requested. Therefore,

IT IS ORDERED:

The Department hereby grants relief to the City of Lake Worth by making the following modifications to the Conditions of Certification:

Special Conditions 1.4., 1.5. and 1.7. are modified to read as follows:

1.4.a. The permittee shall demonstrate compliance with the fuel sulfur content limits in Specific Condition 1.1. through sampling and analysis of

as-fired fuel oil. The sampling shall be conducted for each day of operation firing fuel oil, and analysis of the samples composited for each unit shall be conducted monthly. Fuel oil analysis reports shall be submitted quarterly.

1.4.b. A visible emissions (VE) test shall be conducted annually using EPA Reference Method 9, to determine compliance with the VE limits of 20% opacity.

1.5. On or before March 1st of each calendar year, a completed Annual Operation Report Form for Air Emissions Sources shall be submitted. Calculations sha;; be shown.

1.7. Copies of all reports, tests, notifications or other submittals required by Florida Administrative Code rules or conditions of this certification shall be submitted to both the Southeast Florida District Office and the Palm Beach County Health Department, Division of Environmental Science and Engineering.

Any party to this Order has the right to seek judicial review of this Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida, 32399-2400, and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Order is filed with the clerk of the Department.

DONE AND ORDERED this 28 day of September, 1987 in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Dale Twachtmann
Secretary

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: 904/488-4805

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52 Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk

9-25-87
Date

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that copies of the foregoing FINAL ORDER MODIFYING CONDITIONS OF CERTIFICATION were furnished by United States Mail, to all counsel of record listed on the attached service list, on the 29th day of September 1987.

Julia C. Costas
Assistant General Counsel

Copies furnished to:

Larry Keesey
Department of Community Affairs
2571 Executive Center Circle E.
Tallahassee, Florida 32301

Michael Twomey
Public Service Commission
101 East Gaines Street
Tallahassee, Florida 32301

Peter C. Cunningham
Suite 420
First Florida Bank Building
Post Office Box 6526
Tallahassee, Florida 32314

BEFORE THE GOVERNOR AND CABINET

OF THE STATE OF FLORIDA

In the Matter of:

LAKE WORTH UTILITIES AUTHORITY Application for Power Plant Site Certification, Lake Worth, Palm Beach County, Florida; Application No. PA-74-05.

CASE NO. 75-1774

The following persons were present and participated in the disposition of this matter:

Honorable Reubin O'D. Askew
Governor

Honorable Bruce A. Smathers
Secretary of State

Honorable Robert L. Shevin
Attorney General

Honorable Philip F. Ashler
Treasurer and Insurance Commissioner

Honorable Gerald A. Lewis
Comptroller

Honorable Doyle Conner
Commissioner of Agriculture

Honorable Ralph D. Turlington
Commissioner of Education

ORDER ADOPTING HEARING OFFICER'S ORDER
RECOMMENDING CERTIFICATION SUBJECT TO CONDITIONS

BY THE GOVERNOR AND CABINET:

The Governor and Cabinet having heard statements by the parties, reviewed the recommended order dated March 17, 1976, (attached and incorporated by reference as Exhibit "A") and order dated March 26, 1976, (attached and incorporated by reference as Exhibit "B") as well as copies of the general and special conditions (attached and incorporated by reference as

Exhibit "C") and having been otherwise advised in the premises of said order by their respective staffs, it is,

ORDERED:

1. The March 17, 1976 recommended order and March 26, 1976 order are adopted.

2. The general and special conditions submitted by the Department of Environmental Regulation are adopted.

ORDERED this 18th day of May, 1976 at Tallahassee, Florida at a duly constituted meeting of the Governor and Cabinet.

FOR THE GOVERNOR AND FLORIDA CABINET:

REUBIN O'D. ASKEW
Governor

VOTE:

FOR	AGAINST
Honorable Reubin O'D. Askew	
Honorable Bruce A. Smathers	
Honorable Robert L. Shevin	
Honorable Philip F. Ashler	
Honorable Gerald A. Lewis	
Honorable Doyle Conner	
Honorable Ralph D. Turlington	

Copies Furnished To:

All Parties of Record

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

In re: Lake Worth Utilities Authority Application for Power Plant Site Certification, Lake Worth, Palm Beach County, Florida, Application No. PA-74-05.	Case No. 75-1774

FINDINGS OF FACT, CONCLUSIONS OF LAW AND RECOMMENDED ORDER

This proceeding is held pursuant to the Florida Electrical Power Plant Siting Law, Chapter 403, Florida Statutes, to consider the application for site certification of Unit S-5 of the Lake Worth Utilities Authority, City of Lake Worth, Florida, known as the "Tom G. Smith Municipal Power Plant, Unit S-5."

Pursuant to proper notice, the additional public hearing required in this matter by Section 403.508(3), Florida Statutes, was held in Lake Worth, Florida, on December 9, 1975, at 9:00 a.m. and ending at 10:45 a.m. The purpose of this hearing was to take testimony and evidence concerning whether the location and operation of the proposed facility will produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife and the ecology of state waters and their aquatic life.

The hearing included an examination of the following: the necessity for expanded electrical generation; the expected environmental impact of the facility; the operational safeguards of the facility; the availability of abundant, low-cost electrical energy; and other public interests and issues relevant to certification of the proposed site.

The following parties entered appearances at and participated in the hearing through counsel or representatives:

1. Department of Environmental Regulation.
2. Lake Worth Utilities Authority, City of Lake Worth, Florida.
3. Florida Public Service Commission.
4. State of Florida, Department of Administration, Division of State Planning.

After consideration of all pleadings, memoranda of law, and proposed findings, conclusions and recommendations, as well as all

testimony and evidence properly admitted herein, the following Findings of Fact, Conclusions of Law and Recommended Order are entered. All proposed findings, conclusions and recommendations not incorporated directly or inferentially herein are rejected as being unsupported in law or in fact or unnecessary to the rendering of this Recommended Order.

FINDINGS OF FACT

1. The site for the proposed combined cycle generating facility, hereinafter referred to as Unit S-5, is part of the existing 22-acre utility complex located near the western edge of the City of Lake Worth, Florida. This site, which has been used by the Lake Worth Utilities Authority for electrical power generation for over 25 years, is shared by the power plant, water treatment plant, public works department and various other municipal agencies. The site is bounded by public use areas, such as the Lake Worth Senior and Junior High School and athletic field on the north and east, the Seaboard Coast Line Railroad right-of-way and Interstate Highway 95 on the west and the Lake Worth Utilities Authority water treatment plant on the south. The most significant visual change to be caused by the addition of Unit S-5 to this site will be the addition of a 75 foot high exhaust stack and the mechanical draft cooling tower. Both of these structures will be, in large part, masked by the I-95 elevated roadway, which dominates the skyline in the area of the site.

2. Unit S-5, as proposed, will be of the combined cycle type, nominally rated at 29.5 megawatts. The unit will basically consist of a gas turbine-generator unit, unfired heat recovery steam generator, and steam turbine-generator unit and auxiliaries. The unit will utilize a cooling tower as is presently being done for the four existing steam units already on site.

3. Operating at designed capacity, Unit S-5 will use an estimated 346,000 gallons of water per day through 1982. It is similarly estimated that, operating at designed capacity, 28,000 gallons of water per day would be discharged as cooling tower blow-down, boiler blow-down and demineralizer backwash. The applicant estimates that the average

water use of Unit S-5 will be 201,000 gallons per day, which is approximately 3.8 percent of the 1978 projected average daily output of the Lake Worth Utilities Authority water plant, from which the water will be taken. The Lake Worth Utilities Authority water plant has a total design capacity of 25 million gallons per day.

4. The design of Unit S-5 will allow operation on both gaseous and/or liquid fuels. Natural gas and number two diesel oil will be the fuels fired in this unit. The presently existing fuel facilities and supply arrangements are sufficient to provide the fuel needs of Unit S-5.

5. Unit S-5, as designed, will be a highly efficient generator of electricity. It would allow the Lake Worth Utilities Authority to produce electricity at a lower cost by consuming less fuel per unit of electricity produced. According to the applicant's projections, the net savings in system operating costs would range from $70,000 to $500,000 per year depending upon fuel costs and fuel availability. The applicant presented unrebutted testimony showing that, because of the efficiency of the proposed unit, annual fuel savings could be as high as the equivalent of 860,000,000 cubic feet of natural gas or 5,370,000 gallons of oil. Further, operation of Unit S-5 would result in a substantial reduction in power plant water consumption.

6. The applicant, Lake Worth Utilities Authority, has shown, by unrebutted testimony, that Unit S-5 will be highly efficient in operation and result in a substantial savings in operating costs should it come on line in 1978.

7. As shown by the staff report of the Department of Environmental Regulation, Composite Exhibit 3, the construction of Unit S-5 will have minimal impact on the environment because of the previous impact of construction of the existing units already on site. Further, normal operation of the unit, as proposed, at worst, will cause a minimal increase in environmental impact over that caused by existing units. When displacement of older, less efficient units occur, Unit S-5 may reduce the overall environmental impact of the plant site. The unit is designed to operate in compliance with all applicable state and federal environmental standards and regulations.

8. The Florida Public Service Commission is required by Section 403.57, Florida Statutes, to prepare a report and recommendation as to the present and future needs for electrical generating capacity in the area to be served by the proposed site. Such a report and recommendation was prepared and submitted as required by statute in this proceeding.

9. The Public Service Commission found the area to be served by Unit S-5 to be an area containing approximately 11 square miles, which includes the City of Lake Worth and vicinity, as defined in the territorial agreement dated March 6, 1972, between Florida Power and Light Company and the Lake Worth Utilities Authority.

10. Due primarily to the severe depression of the state economy and the price increases in the cost of fuel oil, the Florida Public Service Commission report finds that the annual growth rates in demand for electricity have been reduced. Using what it termed a "realistic" growth rate of 7.5 percent annually and a minimal growth rate of 5.75 percent annually, the Florida Public Service Commission concluded that a need for the additional generating capacity to be provided by Unit S-5 would not exist until 1982 to 1984. Consequently, the Commission concluded that a need for the generating capacity for Unit S-5 will not exist in 1978, the year in which the applicant proposes to bring the unit on line. However, the Commission's report notes that they have considered summaries of an economic analysis submitted by the Lake Worth Utilities Authority which showed that, due to the greater efficiency of the proposed unit, the savings in operating the system with this new unit would more than offset the cost to build it. Noting that the Commission staff reviewed these summaries and performed an analysis of their own for a range of generating efficiencies and fuel costs, the report concludes that the assumptions for this analysis were reasonable and that, based on these assumptions, there is an economic advantage when operating with the proposed Unit S-5, even though a need to meet demand may not exist at the time the unit is to come on line.

11. A need for the generating capacity of Unit S-5 will not exist until 1982 to 1984.

12. The Division of State Planning of the Department of Administration has reviewed the 1975 ten-year site plan of the Lake Worth Utilities Authority with regard to proposed Unit S-5. The report of the Division of State Planning notes that the Division concurs with the Public Service Commission in its assessment that need for the generating capacity will not exist in 1978. However, the report notes that it has no basis for disagreement with the applicant's calculations that bringing Unit S-5 on line would provide power cheaper than can the present system. Therefore, the Division's report concludes that the ten-year site plan of the Lake Worth Utilities Authority, as amended by the final version of its site certification request, is suitable, and recommends that the proposed plan be certified.

13. There will be no new associated transmission facilities involved in the construction and operation of Unit S-5. Existing transmission facilities will be utilized.

14. The staff report of the Department of Environmental Regulation concludes that if Unit S-5 can produce electricity at a significantly lower cost and thereby justify that the unit is necessary environmentally, Unit S-5 appears acceptable. It further concludes that if Unit S-5 is needed, and considering the slight environmental impacts of Unit S-5, the site is suitable at present and certification could be granted subject to proper conditions.

15. Composite Exhibit 3 includes a statement of General Conditions of Certification and Special Conditions of Certification, which the Department of Environmental Regulation have proposed be made applicable to this facility if certified. The applicant, Lake Worth Utilities Authority, has stipulated and agreed that the General and Special Conditions of Certification, as proposed, should be imposed if certification is granted.

16. As shown by Florida Pollution Control Board Order No. 75-2, dated February 10, 1975, Exhibit 7, the Florida Pollution Control Board, pursuant to Chapter 403, Florida Statutes, found that the proposed site for Unit S-5 is consistent and in compliance with existing land use plans and zoning ordinances.

17. At the conclusion of the presentation by the parties to this proceeding, opportunity was given to the general public to comment

upon the application for site certification. No one appeared to make comment.

CONCLUSIONS OF LAW

18. This proceeding was held pursuant to the Florida Electrical Power Plant Siting Law, Chapter 403, Florida Statutes, and Chapter 17-17, Florida Administrative Code, to consider the Lake Worth Utilities Authority application for power plant site certification of Unit S-5, located in Lake Worth, Palm Beach County, Florida.

19. Notice, in accordance with Chapter 403 and 120, Florida Statutes, and Chapter 17-17, Florida Administrative Code, has been given to all persons and parties entitled thereto, as well as to the general public.

20. The purpose of this proceeding was to take testimony and evidence concerning whether the location and operation of the proposed facility will produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of state waters and their aquatic life and to fully balance the increasing demands for electrical power plant location and operation with the broad interests of the public, as provided in Chapter 403, Florida Statutes.

21. The record of this hearing consists of all pleadings and papers filed herein, the transcript of the Final Hearing, all Orders entered by the Hearing Officer, and all evidence and exhibits admitted to the record.

22. After this proceeding was initiated, the Florida State Legislature enacted the Florida Environmental Reorganization Act of 1975, Chapter 75-22, Laws of Florida, 1975, which took effect on July 1, 1975. This Act affected the nature and authority of the following parties to this proceeding as follows:

(1) The Department of Pollution Control was transferred to the Department of Environmental Regulation, except for certain powers, duties and functions vested in the Governor and Cabinet.

The Act provides that the Governor and Cabinet shall perform the duties previously vested in the Pollution Control Board of the Department of Pollution Control, pursuant to the Florida Electrical

Power Plant Siting Act, Sections 403.59, 403.511, 403.512 and 403.513, Florida Statutes. For those purposes, the Governor shall perform the duties of the Chairman of the Pollution Control Board, as defined in Section 403.511, Florida Statutes. Therefore, these findings of Fact, Conclusions of Law, and the Recommended Order are directed to the Governor and the Cabinet for final decision.

Section 24 of Chapter 75-22, Laws of Florida, 1975, provides that:

> "No legal or administrative proceeding pending as of the effective date of this act shall be abated or delayed because of any transfer made in this act, and any department to which are transferred the powers, duties, and functions of an agency relating to a pending proceeding shall be substituted as a party in interest in such proceeding."

This administrative proceeding was pending as of the effective date of Chapter 75-22, and substitution of parties was made, as provided in Section 24 of the Act.

23. Section 403.55, Florida Statutes, provides that the Division of State Planning of the Department of Administration shall make a study of each ten-year site plan required to be submitted by each electric utility and that the Division shall classify each such plan as "suitable" or "unsuitable." The Division of State Planning has made such a study and has found that the ten-year site plan of the Lake Worth Utilities Authority, as amended by the final version of its site certification request, is suitable.

24. Section 403.507, Florida Statutes, requires that, upon application for site certification, the Florida Public Service Commission shall prepare a report and recommendation as to the present and future needs for electrical generating capacity in the area to be served by the proposed site and shall submit its findings to the Department of Environmental Regulation. Such a report and recommendation has been submitted and introduced into evidence in this proceeding.

25. The Lake Worth Utilities Authority has made a valid application for site certification pursuant to the Florida Electrical Power Plant Siting Law, Chapter 403, Florida Statutes.

26. The location and operation of Unit S-5, as proposed, will produce minimal adverse effects on human health, the environment,

the ecology of the land and its wildlife and the ecology of state waters and their aquatic life.

27. The operational safeguards for the proposed unit are technically sufficient for the welfare and protection of the citizens of Florida.

28. The unit, as proposed, is consonant with the premise of abundant, low-cost electrical energy.

29. The testimony and evidence shows that a need will exist for the generating capacity of Unit S-5 by 1982 to 1984. The construction, as proposed, of Unit S-5 for operation in 1978 will result in substantial operational cost savings during the four or more years the unit would operate prior to the existence of a definite need for its generating capacity. Therefore, it is concluded that, considering the sufficiency of the operational safeguards, the provision by Unit S-5 of abundant, low-cost electrical energy, and the minimal environmental impact to result from the construction and operation of Unit S-5, a reasonable balance is effected between the environmental impact of construction of Unit S-5 for operation in 1978, and the need for the facility which will not exist until 1982 to 1984.

RECOMMENDED ORDER

Having reviewed the record of this proceeding, and based upon the Findings of Fact and Conclusions of Law set forth herein, it is hereby RECOMMENDED that certification, pursuant to Chapter 403, Florida Statutes, be granted the Lake Worth Utilities Authority, for the construction and operation of Unit S-5 in Lake Worth, Palm Beach County, Florida. It is further recommended that this certification be made subject to the General and Special Conditions of Certification as set forth in Composite Exhibit 3.

Entered this 17 day of March, 1976, in Tallahassee, Florida.

CHRIS H. BENTLEY, Hearing Officer
Division of Administrative Hearings
Room 530, Carlton Building
Tallahassee, Florida 32304
(904) 488-9675

EXHIBIT "A"
8 of 9

Copies furnished:

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Florida Public Service Commission
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Louis F. Hubener, Esquire
Attorney, Division of State Planning
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Ross A. McVoy, Esquire
Attorney, Department of
Environmental Regulation
2562 Executive Center Circle, East
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James Vance, Esquire
Attorney, Lake Worth Utilities Authority
1201-A Belvedere Road
West Palm Beach, Florida

File STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

RECEIVED
MAR 30 1976
DEPT. ENVIRONMENTAL REG.
Environmental Law Section

In re: Lake Worth Utilities Authority Application for Power Plant Site Certification, Lake Worth, Palm Beach County, Florida, Application No. PA-74-05.

Case No. 75-1774

ORDER

Having considered the Motion for Correction dated March 23, 1976, by the Division of State Planning, it is hereby Ordered:

1. The Findings of Fact, Conclusions of Law and Recommended Order is corrected as follows: the final sentence of paragraph 12 shall read: "Therefore, the Division's report concludes that the ten-year site plan of the Lake Worth Utilities Authority, as amended by the final version of its site certification request, is suitable, and recommends that the proposed plant be certified."

DONE and ORDERED this 26 day of March, 1976, in Tallahassee, Florida.

CHARLES H. BENTLEY, Hearing Officer
Division of Administrative Hearings
Room 530, Carlton Building
Tallahassee, Florida 32304
(904) 488-9675

Copies furnished:

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West Palm Beach, Florida

EXHIBIT "B"
1 of 1

ATTACHMENT L

STACK TEST RESULTS

Table 2. NO_x and VOC Test Results for the Generating Units at the Tom G. Smith Plant

Unit	Date Tested	Fuel	Load Condition (percent)	NO_x Emissions (lb/MMBtu)	VOC Emissions (lb/MMBtu)
S-1	7/19/93	Gas	25	0.161	0.00
			50	0.172	0.00
			75	0.199	0.00
			100	0.215	0.00
	7/20/93	Oil	50	0.435	0.00
			75	0.419	0.00
			100	0.388	0.00
CC-1	7/21/93	Gas	50	0.202	0.00
			75	0.267	0.00
			100	0.346	0.00
	7/23/93	Oil	50	0.377	0.003
			75	0.542	0.001
			100	0.608	0.002
CGT-1	7/22/93	Oil	25	0.386	0.00
			50	0.498	0.00
			75	0.625	0.00
			100	0.791	0.00
Diesel M	7/21/93	Oil	25	2.621	0.024
			50	2.277	0.022
			75	4.162	0.029
			100	4.516	0.028

Note: Units S-2, S-3, and S-4 were not tested. Unit S-2 is retired, S-3 is out of service for overhaul, and S-4 is unavailable. Only one diesel unit tested.

Table 1 Emission Summary
Steam Unit S-1
City of Lake Worth - Utilities Department
Lake Worth, Florida
July 19-20, 1993

Run Number	Time	Load %	Load MW	Flow Rate SCFMD	CO2 %	O2%	NOx Emissions ppm	NOx Emissions lbs/Hr	NOx Emissions lbs/MMBTU	VOC Emissions ppm	VOC Emissions lbs/Hr	VOC Emissions lbs/MMBTU
Gas Fired - 7/19/93												
1	1037-1131	25	2.20	18249	4.6	13.7	53.20	6.95	0.161	0.00	0.00	0.00
2	1153-1242	50	4.00	23087	8.2	10.2	84.50	13.97	0.172	0.00	0.00	0.00
3	1307-1352	75	5.05	23950	10.0	7.6	122.00	20.93	0.199	0.00	0.00	0.00
4	1406-1451	100	6.50	25908	12.0	6.7	140.54	26.08	0.215	0.00	0.00	0.00
Oil Fired - 7/20/93												
5	1630-1745	50	4.00	24477	8.0	11.6	176.46	30.94	0.435	0.00	0.00	0.00
6	1729-1815	75	5.00	24851	10.0	9.7	204.56	36.41	0.419	0.00	0.00	0.00
7	1830-1946	100	6.50	25979	12.0	7.1	233.63	43.47	0.388	0.16	0.02	0.00

lbs/Hr = ppm (2.595×10^{-9}) MW (SCFMD) 60

MW NO_x = 46, MW Carbon = 12.011

Fuel Factors

gas F = 8710 SCF/MMBTU
oil F = 9190 SCF/MMBTU

lbs/MMBTU = ppm (2.595×10^{-9}) MW (F) $\frac{20.9}{20.9 - \%\ O2}$

Table 2 Emission Summary
Diesel Unit M (Diesel Fuel)
City of Lake Worth - Utilities Department
Lake Worth, Florida
July 21, 1993

Run Number	Time	Load %	Load MW	Flow Rate SCFMD	CO2 %	O2%	NOx Emissions ppm	NOx Emissions lbs/Hr	NOx Emissions lbs/MMBTU	VOC Emissions ppm	VOC Emissions lbs/Hr	VOC Emissions lbs/MMBTU
1	1425-1525	25	0.75	7599	2.8	16.6	491.6	26.76	2.621	5.77	0.25	0.024
2	1543-1643	50	1.00	7854	3.5	15.5	536.4	30.17	2.277	6.71	0.30	0.022
3	1654-1748	75	1.60	7645	5.4	14.3	1198.0	65.60	4.162	10.62	0.46	0.029
4	1750-1650	100	2.00	8600	3.0	14.0	1359.0	83.71	4.516	10.29	0.50	0.028

lbs/Hr = ppm (2.595×10^{-9}) MW (SCFMD) 60

MW NO_x = 46, MW Carbon = 12.011

Fuel Factors

oil F = 9190 SCF/MMBTU

lbs/MMBTU = ppm (2.595×10^{-9}) MW (F) $\frac{20.9}{20.9 - \% O2}$

Table 3 Emission Summary
Gas Turbine Unit GT-1
City of Lake Worth - Utilities Department
Lake Worth, Florida
July 22, 1993

Run Number	Time	Load		Flow Rate	CO2	O2%	NOx Emissions			VOC Emissions		
		%	MW	SCFMD	%		ppm	lbs/Hr	lbs/MMBTU	ppm	lbs/Hr	lbs/MMBTU
1	0818-0902	25	7.0	317895	1.4	18.5	42.59	96.97	0.386	0.00	0.00	0.00
2	0931-1016	50	14.0	354233	2.2	17.4	80.28	203.68	0.498	0.00	0.00	0.00
3	1030-1122	75	21.0	347857	3.1	16.4	130.00	323.88	0.625	0.00	0.00	0.00
4	1136-1221	100	28.0	386571	3.3	16.0	178.29	493.63	0.791	0.00	0.00	0.00

lbs/Hr = ppm (2.595×10^{-9}) MW (SCFMD) 60

MW NO_x = 46, MW Carbon = 12.011

Fuel Factor

gas F = 8710 SCF/MMBTU

lbs/MMBTU = ppm (2.595×10^{-9}) MW (F) $\frac{20.9}{20.9 - \%\ O2}$

ATTACHMENT M

HAZARDOUS AIR POLLUTANT
EMISSION CALCULATIONS

CITY OF LAKE WORTH
HAZARDOUS AIR POLLUTANTS (HAPs) EMISSIONS CALCULATIONS

The HAPs emissions were calculated for those that result from volatile organic compounds (VOHAPS) and those that are metals or trace element components of fuel oil (MET-HAPS). HAPS from the tanks were calculated based on the HAPS within the VOCs.

The VOHAPS were calculated using EPA's SPECIATE. This program identified the composite profile of the pollutants and provided emission factors. Only the components that are regulated as HAPs were used in the HAPs emission calculation. SPECIATE was also used to determine the components VOCs from fuel oil storage in tanks that contain HAPS. The output of SPECIATE is attached.

The HAPs that are metals or trace elements from fuel oil were identified within EPA AP-42. The tables used from AP-42 are attached as well. The emission factors used in the HAPs calculations and associated source are listed in Table M-1.

Emissions from storage vessels were determined using EPA's TANKS program. This program yield total VOC emission equalling 0.09 tons/year. Of the VOCs emitted by the storage vessels, SPECIATE identified three pollutants that are regulated as HAPS; Hexane, Benzene, and Toluene. These pollutants makeup 4.7, 2.4 and 1.4 percent of VOCs from the tanks. Applying these percentages to the tank VOC potential emissions yields approximately 0.01 tons/year of HAPS coming from the tanks.

For those pollutants with potential emissions in excess of the reporting threshold, the pollutant-specific calculation is listed in the permit application. A sample calculation used to determine HAPs emissions is listed below.

Oil-fired Steam Unit Formaldehyde Emission Calculation:

$$Formaldehyde\left(\frac{tons}{year}\right) = 0.1176 \frac{lb}{1000\ gal\ oil} \times 6623.706 \frac{gal\ oil}{year} \times \frac{tons}{2000lbs}$$

The HAPs emission summary for the power units is in Table M-2. From this summary, the aggregrate HAPs potential emissions from the power units is 22.07 tons/year, while the maximum single HAPs

emission is 5.07 tons/year. Thus the facility-wide HAPs emissions, including tank HAPS is 22.08 tons/year.

TABLE M-1
HAZARDOUS AIR POLLUTANTS EMISSION FACTORS

Steam Unit - Oil Fired

Pollutant	Emission Factor	Source
Formaldehyde	0.1176 lb/1000 gal	SPECIATE
Hexane	0.140 lb/1000 gal	SPECIATE
Antimony	2.4×10^{-5} lb/MMBTU	AP-42 Table 1.3-11
Arsenic	1.9×10^{-5} lb/MMBTU	AP-42 Table 1.3-11
Beryllium	4.2×10^{-6} lb/MMBTU	AP-42 Table 1.3-11
Cadmium	1.6×10^{-5} lb/MMBTU	AP-42 Table 1.3-11
Chromium	2.1×10^{-5} lb/MMBTU	AP-42 Table 1.3-11
Cobalt	7.7×10^{-5} lb/MMBTU	AP-42 Table 1.3-11
Manganese	2.3×10^{-5} lb/MMBTU	AP-42 Table 1.3-11
Nickel	8.37×10^{-4} lb/MMBTU	AP-42 Table 1.3-11
Selenium	3.8×10^{-5} lb/MMBTU	AP-42 Table 1.3-11

Steam Unit - Gas Fired

Pollutant	Emission Factor	Source
Formaldehyde	0.112 lb/MMCF	SPECIATE
Benzene	0.056 lb/MMCF	SPECIATE
Toluene	0.028 lb/MMCF	SPECIATE

Turbine - Oil Fired

Pollutant	Emission Factor	Source
Formaldehyde	1.01×10^{-3} lb/1000 gal	FIRE
Benzene	9.13×10^{-5} lb/1000 gal	FIRE
Antimony	2.2×10^{-5} lb/MMBTU	AP-42 Table 3.1-7
Arsenic	4.9×10^{-6} lb/MMBTU	AP-42 Table 3.1-7
Beryllium	3.3×10^{-7} lb/MMBTU	AP-42 Table 3.1-7
Cadmium	4.2×10^{-6} lb/MMBTU	AP-42 Table 3.1-7
Chromium	4.7×10^{-5} lb/MMBTU	AP-42 Table 3.1-7
Cobalt	9.1×10^{-6} lb/MMBTU	AP-42 Table 3.1-7
Manganese	3.4×10^{-4} lb/MMBTU	AP-42 Table 3.1-7
Mercury	9.1×10^{-7} lb/MMBTU	AP-42 Table 3.1-7
Nickel	1.2×10^{-3} lb/MMBTU	AP-42 Table 3.1-7
Selenium	5.3×10^{-6} lb/MMBTU	AP-42 Table 3.1-7
Phosphorus	3.0×10^{-4} lb/MMBTU	AP-42 Table 3.1-7

Turbine - Gas Fired

Pollutant	Emission Factor	Source
Formaldehyde	3.78 lb/MMCF	SPECIATE

Diesels

Pollutant	Emission Factor	Source
Formaldehyde	7.89×10^{-5} lb/MMBTU	AP-42 Table 3.4-3
Benzene	7.76×10^{-4} lb/MMBTU	AP-42 Table 3.4-3
Toluene	2.81×10^{-4} lb/MMBTU	AP-42 Table 3.4-3
Xylene	1.93×10^{-4} lb/MMBTU	AP-42 Table 3.4-3
Acetaldehyde	2.52×10^{-5} lb/MMBTU	AP-42 Table 3.4-3
Acrolein	7.88×10^{-6} lb/MMBTU	AP-42 Table 3.4-3
POM	2.12×10^{-4} lb/MMBTU	AP-42 Table 3.4-3

TABLE M-2
CITY OF LAKE WORTH UTILITIES
TOM G. SMITH POWER PLANT
"POTENTIAL-TO-EMIT" CALCULATIONS
ALL OIL CASE

UNIT	S-1	S-3	S-4	GT-1	GT-2/S-5	MU-1	MU-2	MU-3	MU-4	MU-5	MU-1-5	
FIRING RATE (MMBTU/HR)	111	325.1	419.1	433	317.6	21	21	21	21	21	21	
CAPACITY FACTOR (%)	100	100	100	100	100	100	100	100	100	100	100	
HOURS OF OPERATION	8760	8760	8760	8760	8760	8760	8760	8760	8760	8760	8760	
BTU/GAL	146800	146555	146555	139300	139300	139300	139300	139300	139300	139300	139300	
10e3 GAL OIL	6623.706	19432.131	25050.773	27229.576	19972.548	1320.603	1320.603	1320.603	1320.603	1320.603	6603.015	
MMCF GAS	0	0	0	0	0	0	0	0	0	0	0	
BTU/CF	0	0	0	0	0	0	0	0	0	0	0	
MMBTU/MMCF	0	0	0	0	0	0	0	0	0	0	0	
GAS MMBTU	0	0	0	0	0	0	0	0	0	0	0	
% SULFUR	2.25	2.25	2.25	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	
MMBTU/10e3GAL	146.8	146.555	146.555	139.3	139.3	139.3	139.3	139.3	139.3	139.3	139.3	
OIL MMBTU	972360	2847876	3671316	3793080	2782176	183960	183960	183960	183960	183960	919800	
TOTAL MMBTU	972360	2847876	3671316	3793080	2782176	183960	183960	183960	183960	183960	919800	
VOHAPS												HAP TOTALS
Formaldehyde(tons/yr)	0.39	1.14	1.47	1.92	1.40						0.04	6.36
Benzene(tons/yr)	0.00	0.00	0.00	0.17	0.13						0.36	0.66
Toluene(tons/yr)	0.00	0.00	0.00	0.00	0.00						0.13	0.13
Hexane(tons/yr)	0.05	0.14	0.18	0.00	0.00						0.00	0.36
Antimony(tons/yr)	0.01	0.03	0.04	0.04	0.03						0.00	0.16
Arsenic (tons/yr)	0.01	0.03	0.03	0.01	0.01						0.00	0.09
Beryllium (tons/yr)	0.00	0.01	0.01	0.00	0.00						0.00	0.02
Cadmium (tons/yr)	0.01	0.02	0.03	0.01	0.01						0.00	0.07
Chromium (tons/yr)	0.01	0.03	0.04	0.09	0.07						0.00	0.23
Cobalt (tons/yr)	0.04	0.11	0.14	0.02	0.01						0.00	0.32
Manganese (tons/yr)	0.01	0.03	0.04	0.64	0.47						0.00	1.20
Mercury (tons/yr)	0.00	0.00	0.00	0.00	0.00						0.00	0.00
Nickel (tons/yr)	0.41	1.19	1.54	2.28	1.67						0.00	7.08
Selenium (tons/yr)	0.02	0.05	0.07	0.01	0.01						0.00	0.16
Phosphorus (tons/yr)	0.00	0.00	0.00	0.57	0.42						0.00	0.99
Xylene (tons/yr)	0.00	0.00	0.00	0.00	0.00						0.09	0.09
Acetaldehyde (tons/yr)	0.00	0.00	0.00	0.00	0.00						0.01	0.01
Acrolein (tons/yr)	0.00	0.00	0.00	0.00	0.00						0.00	0.00
POM (tons/yr)	0.00	0.00	0.00	0.00	0.00						0.10	0.10
	0.95	2.79	3.59	5.76	4.22						0.72	18.03

TABLE M-2
CITY OF LAKE WORTH UTILITIES
TOM G. SMITH POWER PLANT
"POTENTIAL-TO-EMIT" CALCULATIONS
ALL GAS CASE

UNIT	S-1	S-3	S-4	GT-1	GT-2/S-5	MU-1	MU-2	MU-3	MU-4	MU-5	MU-1-5	
FIRING RATE (MMBTU/HR)	112.5	325.1	419.1	433	317.6	21	21	21	21	21	21	
CAPACITY FACTOR (%)	100	100	100	100	100	100	100	100	100	100	100	
HOURS OF OPERATION	8760	8760	8760	8760	8760	8760	8760	8760	8760	8760	8760	
BTU/GAL	0	0	0	0	0	0	0	0	0	0	0	
10e3 GAL OIL	0	0	0	0	0	0	0	0	0	0	0	
MMCF GAS	959.5910419	2773.0049	3574.7965	0	2709.0321	0	0	0	0	0	0	
BTU/CF	1027	1027	1027	0	1027	0	0	0	0	0	0	
MMBTU/MMCF	1027	1027	1027	0	1027	0	0	0	0	0	0	
GAS MMBTU	985500	2847876	3671316	0	2782176	0	0	0	0	0	0	
% SULFUR	0	0	0	0	0	0	0	0	0	0	0	
MMBTU/10e3GAL	0	0	0	0	0	0	0	0	0	0	0	
OIL MMBTU	0	0	0	0	0	0	0	0	0	0	0	
TOTAL MMBTU	985500	2847876	3671316	0	2782176	0	0	0	0	0	0	
VOHAPS												HAP TOTALS
Formaldehyde(tons/yr)	0.05	0.16	0.20		5.12							5.53
Benzene(tons/yr)	0.03	0.08	0.10		0.00							0.20
Toluene(tons/yr)	0.01	0.04	0.05		0.00							0.10
TOTAL BY UNIT	0.09	0.27	0.35		5.12							5.84

VOC Speciated Emission Factor Profile

Profile Name : External Combustion Boiler - Residual Oil
Profile Number : 0001
Data Quality : B

Control Device : UNCONTROLLED
Reference(s) : 58,59
Data Source : Information based on stack sample for residual oil analyzed by GC/MS.

SCC Code : 10200401
SCC Name : EXTCOMB BOILER
SCC Name : INDUSTRIAL
SCC Name : RESIDUAL OIL
SCC Name : NO 6 OIL

Emission Factor Units: 1000 Gallons Burned

Number	CAS Number	Name	Emission Factor
53	74-82-8	METHANE	0.0308000
62	106-97-8	N-BUTANE	0.0392000
80	110-54-3	HEXANE	0.0140000
231	50-00-0	FORMALDEHYDE	0.1176000
242	67-64-1	ACETONE	0.0784000

VOC Speciated Emission Factor Profile

Profile Name : External Combustion Boiler - Natural Gas
Profile Number : 0003
Data Quality : B

Control Device : Uncontrolled
Reference(s) : 58, 59
Data Source : Information based on stack sample for natural gas analyzed by GC/MS.

SCC Code : 10200601
SCC Name : EXTCOMB BOILER
SCC Name : INDUSTRIAL
SCC Name : NATURAL GAS
SCC Name : >100MMBTU/HR

Emission Factor Units: Million Cubic Feet Burned

Number	CAS Number	Name	Emission Factor
1		ISOMERS OF HEXANE	0.0140000
18		ISOMERS OF PENTANE	0.1260000
53	74-82-8	METHANE	0.7840000
56	74-98-6	PROPANE	0.0560000
62	106-97-8	N-BUTANE	0.1260000
69	109-66-0	N-PENTANE	0.0840000
91	110-82-7	CYCLOHEXANE	0.0140000
231	50-00-0	FORMALDEHYDE	0.1120000
318	71-43-2	BENZENE	0.0560000
319	108-88-3	TOLUENE	0.0280000

VOC Speciated Emission Factor Profile

Profile Name : Natural Gas Turbine
Profile Number : 0007
Data Quality : C

Control Device : Uncontrolled
Reference(s) : 58, 59
Data Source : Composite profile developed using data based on GC/MS analysis of fuel combustion exhaust.

SCC Code : 20100201
SCC Name : INTERNLCOMBUSTION
SCC Name : ELECTRIC GENERATN
SCC Name : NATURAL GAS
SCC Name : TURBINE

Emission Factor Units: Million Cubic Feet Burned

Number	CAS Number	Name	Emission Factor
53	74-82-8	METHANE	8.8200000
231	50-00-0	FORMALDEHYDE	3.7800000

VOC Profile Speciation Report

Profile Name : Fixed Roof Tank - Crude Oil Refinery
Profile Number : 0297
Data Quality : C

Control Device : Uncontrolled
Reference(s) : 59, 72
Data Source : Engineering evaluation of test data and literature data.

SCC Assignments: 40400301, 40400302

Number	CAS Number	Name	Spec_MW	Spec_WT	Peak
1		ISOMERS OF HEXANE	86.17	5.10	
2		ISOMERS OF HEPTANE	100.20	5.00	
3		ISOMERS OF OCTANE	114.23	0.40	
18		ISOMERS OF PENTANE	72.15	11.20	
53	74-82-8	METHANE	16.04	8.80	
54	74-84-0	ETHANE	30.07	2.70	
56	74-98-6	PROPANE	44.09	16.10	
62	106-97-8	N-BUTANE	58.12	20.80	
64	75-28-5	ISO-BUTANE	58.12	9.30	
69	109-66-0	N-PENTANE	72.15	10.10	
80	110-54-3	HEXANE	86.17	4.70	
81	142-82-5	HEPTANE	100.20	2.00	
318	71-43-2	BENZENE	78.11	2.40	
319	108-88-3	TOLUENE	92.13	1.40	
TOTAL				100.00	

TABLE 1.3-11. EMISSION FACTORS FOR TRACE ELEMENTS FROM FUEL OIL COMBUSTION SOURCES

EMISSION FACTOR RATING: E

Firing Configuration (SCC)[a]	Emission Factor, pg/J (lb/10^{12} Btu)[b]										
	Sb	As	Be	Cd	Cr	Co	Pb	Mn	Hg	Ni	Se
No. 6 oil fired (101004-01/04 10200401 10300401)	10-20 (24-46)	8.2-49 (19-114)	1.8 (4.2)	6.8-91 (16-211)	9.0-55 (21-128)	33-50 (77-121)	12-80 (28-194)	10-30 (23-74)	0.6-14 (1.4-32)	360-964 (837-2330)	16 (38)
Distillate oil fired (10100501 10200501 10300501)	NA	1.8 (4.2)	1.1 (2.5)	4.5 (11)	21-29 (48-67)	NA	3.8 (8.9)	6.0 (14)	1.3 (3.0)	7.3 (18)	NA

[a]SCC = Source Classification Code.
[b]References 16-19, 36-40. The emission factors in this table represent the ranges of factors reported in the literature. If only one data point was found, it is still reported in this table.
NA = Not available.

TABLE 3.1-7. TRACE ELEMENT EMISSION FACTORS FOR DISTILLATE OIL-FIRED GAS TURBINES[a]
(Source Classification Code: 20100101)

EMISSION FACTOR RATING: E[b]

Trace Element	pg/J	lb/MMBtu
Aluminum	64	1.5 E-04
Antimony	9.4	2.2 E-05
Arsenic	2.1	4.9 E-06
Barium	8.4	2.0 E-05
Beryllium	.14	3.3 E-07
Boron	28	6.5 E-05
Bromine	1.8	4.2 E-06
Cadmium	1.8	4.2 E-06
Calcium	330	7.7 E-04
Chromium	20	4.7 E-05
Cobalt	3.9	9.1 E-06
Copper	578	1.3 E-03
Iron	256	6.0 E-04
Lead	25	5.8 E-05
Magnesium	100	2.3 E-04
Manganese	145	3.4 E-04
Mercury	.39	9.1 E-07
Molybdenum	3.6	8.4 E-06
Nickel	526	1.2 E-03
Phosphorus	127	3.0 E-04
Potassium	185	4.3 E-04
Selenium	2.3	5.3 E-06
Silicon	575	1.3 E-03
Sodium	590	1.4 E-03
Tin	35	8.1 E-05
Vanadium	1.9	4.4 E-06
Zinc	294	6.8 E-04

[a]Reference 1.
[b]Emission factor rating of "E" indicates that the data are from a limited data set and may not be representative of a specific source or population of sources.

TABLE 3.4-3. (ENGLISH AND METRIC UNITS) SPECIATED ORGANIC COMPOUND EMISSION FACTORS FOR LARGE STATIONARY DIESEL ENGINES[a]
(Source Classification Code: 20200401)

(Emission Factor Rating: E)[b]

Pollutant	[lb/MMBtu] (fuel input)	[ng/J] (fuel input)
• Benzene	7.76 E-04	3.34 E-01
• Toluene	2.81 E-04	1.21 E-01
• Xylenes	1.93 E-04	8.30 E-02
Propylene	2.79 E-03	1.20 E-00
• Formaldehyde	7.89 E-05	3.39 E-02
• Acetaldehyde	2.52 E-05	1.08 E-02
• Acrolein	7.88 E-06	3.39 E-03

[a]Data based on the uncontrolled levels of one diesel engine from reference 5. There was enough information to compute the input specific emission factors of lb/MMBtu, but not enough to calculate the output specific emission factor of g/hp-hr. There was enough information to compute the input specific emission factors of ng/J, but not enough to calculate the output specific emission factor of g/kW-hr.

[b]"E" rating for emission factors are due to limited data sets, inherent variability in the population and/or a lack of documentation of test results. "E" rated emission factors may not be suitable for specific facilities or populations and should be used with care.

TABLE 3.4-4. (ENGLISH AND METRIC UNITS) POLYCYCLIC AROMATIC HYDROCARBON (PAH) EMISSION FACTORS FOR LARGE STATIONARY DIESEL ENGINES[a]
(Source Classification Code: 20200401)

(Emission Factor Rating: E)[b]

Pollutant	[lb/MMBtu] (fuel input)	[ng/J] (fuel input)
Polycyclic Aromatic Hydrocarbons (PAH)		
Naphthalene	1.30 E-04	5.59 E-02
Acenaphthylene	9.23 E-06	3.97 E-03
Acenaphthene	4.68 E-06	2.01 E-03
Fluorene	1.28 E-05	5.50 E-03
Phenanthrene	4.08 E-05	1.75 E-02
Anthracene	1.23 E-06	5.29 E-04
Fluoranthene	4.03 E-06	1.73 E-03
Pyrene	3.71 E-06	1.60 E-03
Benz(a)anthracene	6.22 E-07	2.67 E-04
Chrysene	1.53 E-06	6.58 E-04
Benzo(b)fluoranthene	1.11 E-06	4.77 E-04
Benzo(k)fluoranthene	< 2.18 E-07	< 9.37 E-05
Benzo(a)pyrene	< 2.57 E-07	< 1.10 E-04
Indeno(1,2,3-cd)pyrene	< 4.14 E-07	< 1.78 E-04
Dibenz(a,h)anthracene	< 3.46 E-07	< 1.49 E-04
Benzo(g,h,i)perylene	< 5.56 E-07	< 2.39 E-04
Total PAH	2.12 E-04	9.09 E-02

[a]Data are based on the uncontrolled levels of one diesel engine from reference 5. There was enough information to compute the input specific emission factors of lb/MMBtu and ng/J but not enough to calculate the output specific emission factor of g/hp-hr and g/kW-hr.

[b]"E" rating for emission factors is due to limited data sets, inherent variability in the population and/or a lack of documentation of test results. "E" rated emission factors may not be suitable for specific facilities or populations and should be used with care.

ATTACHMENT N

ACID RAIN APPLICATION
PHASE II

CITY OF LAKE WORTH
1900 2ND AVENUE NORTH
LAKE WORTH, FLORIDA 33461-4298

(407) 586-1666
FAX (407) 586-1702

UTILITIES
DEPARTMENT

December 13, 1995

Mr. John C. Brown
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: Acid Rain Permit Application
Tom G. Smith Electric Power Plant
Lake Worth, Florida

Dear Mr. Brown:

Enclosed please find the original and three copies of the Phase II Acid Rain Permit Application for the Tom G. Smith Electric Power Plant.

Please note that Unit S-4 has not been available for service since June 1989. The unit experienced extensive damage in a forced outage and is in extended shutdown for repair. Unit S-4 is an affected Phase II unit currently permitted, thus included on this application with Unit S-3. Upon Unit S-4's return to service, Continuous Emission Monitors will be installed.

If you have any questions or require any additional information to process this application, please notify us.

Sincerely,
CITY OF LAKE WORTH UTILITIES

Harvey F. Wildschuetz, Utilities Director
Designated Representative

Enclosure

c: AJ Satyal, Palm Beach County Health Department, w/enclosure
Al Magley, Jr., Raytheon Engineers and Constructors, w/enclosure
Anatole Bezugly, Assistant Utilities Director
Lloyd Gibb, Power Resources Superintendent (ADR)
Margaret Johnstone, Environmental Compliance Officer
Bill Michael, Mechanical Systems Engineer

Phase II Permit Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31 and Chapter 62-214, F.A.C.

This submission is: [X] New [ ] Revised

STEP 1
Identify the source by plant name, State, and ORIS code from NADB

Tom G. Smith	FL	673
Plant Name	State	ORIS Code

STEP 2
Enter the boiler ID# from NADB for each affected unit, and indicate whether a repowering plan is being submitted for the unit by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e

	Compliance Plan			
a	b	c	d	e
Boiler ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	Repowering Plan	New Units Commence Operation Date	New Units Monitor Certification Deadline
S-3	Yes	NO		
S-4	Yes	NO		
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			

STEP 3
Check the box if the response in column c of Step 2 is "Yes" for any unit

[ ] For each unit that will be repowered, the Repowering Extension Plan form is included and the Repowering Technology Petition form has been submitted or will be submitted by June 1, 1997.

Plant Name (from Step 1)

Recordkeeping and Reporting Requirements (cont.)

(iv) Copies of all documents used to complete an Acid Rain part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability.

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
(5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
(6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
(7) Each violation of a provision of 40 CFR parts 72, 73, 75, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
(2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

Certification

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Harvey F. Wildschuetz, Utilities Director, Designated Rep.	
Signature Harvey F. Wildschuetz	Date 12/13/95

Plant Name (from Step 1)

STEP 4
Read the standard requirements and certification, enter the name of the designated representative, and sign and date

Standard Requirements

Permit Requirements.

(1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
(i) Submit a complete Acid Rain part application (including a compliance plan) under 40 CFR part 72, Rules 62-214.320 and 330, F.A.C. in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain part application and issue or deny an Acid Rain permit;
(2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
(i) Operate the unit in compliance with a complete Acid Rain part application or a superseding Acid Rain part issued by the permitting authority; and
(ii) Have an Acid Rain Part.

Monitoring Requirements.

(1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75, and Rule 62-214.420, F.A.C.
(2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
(3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements.

(1) The owners and operators of each source and each Acid Rain unit at the source shall:
(i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
(3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
(i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
(ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1)(i) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

(1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
(2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
(i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
(ii) All emissions monitoring information, in accordance with 40 CFR part 75;
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

STEP 5 (optional)
Enter the source AIRS and FINDS identification numbers, if known

AIRS
FINDS