



Environmental Consulting & Technology, Inc.

March 8, 1994
ECT No. 94014-0002-1300

RECEIVED

MAR 9 1994

Bureau of
Air Regulation

Mr. Syed Arif
Florida Department of
Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Tampa Electric Company
Polk Power Station
FDEP Permit Application Forms

Dear Mr. Arif:

As requested, copies of previously submitted FDEP air source permit application forms for the auxiliary boiler and IGCC facility are enclosed. Please note that the IGCC facility permit application does not reflect the final BACT emission limitation for sulfur dioxide (SO₂). Also, particulate matter (PM) emission rates shown in the permit applications for combustion sources include sulfuric acid mist (H₂SO₄).

Please call me at (904) 332-0444 if you have any questions regarding the enclosed material.

Sincerely,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.

Thomas W. Davis, P.E.
Senior Engineer

Enclosures

TWD/tw

P.O. Box 8188
Gainesville, FL
32605-8188

3701 Northwest
98th Street
Gainesville, FL
32606

(904)
332-0444

FAX (904)
332-6722

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301



808 GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Electrical Power Generation New Existing

APPLICATION TYPE: Construction Operation Modification

COMPANY NAME: Tampa Electric Company COUNTY: Polk

Identify the specific emission point source(s) addressed in this application (i.e. Line
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Polk Power Station
Auxiliary Boiler

SOURCE LOCATION: Street State Road 37 City N/A

UTM: East 402.45 km North 3,067.35 km

Latitude 27 ° 43 ' 43 "N Longitude 81 ° 59 ' 23 "W

APPLICANT NAME AND TITLE: A. Spencer Autry, Director, Environmental

APPLICANT ADDRESS: P.O. Box 111, Tampa, Florida 33601-0111

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative of Tampa Electric Company

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: *A. Spencer Autry*
A. Spencer Autry, Director, Environmental
Name and Title (Please Type)

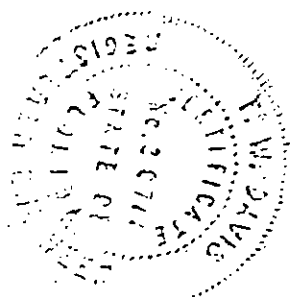
Date: 7/24/92 Telephone No. 813/228-4838

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Thomas W. Davis
Thomas W. Davis

Name (Please Type)

Environmental Consulting & Technology, Inc.
Company Name (Please Type)

P.O. Box 8188, Gainesville, Florida 32605-8188
Mailing Address (Please Type)

Florida Registration No. 36777 Date: July 25, 1992 Telephone No. 904/336-0444

SECTION II: GENERAL PROJECT INFORMATION

- A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Construction of a 49.5 MMBtu/hr auxiliary boiler fired with low sulfur distillate fuel oil. Boiler will operate a maximum of 1,000 hours per year. Boiler will operate in full compliance with all applicable FDER regulations.

- B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction January 1994 Completion of Construction July 1995

- C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Not applicable.

- D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Not applicable.

E. Requested permitted equipment operating time: hrs/day NA ; days/wk NA ; wks/yr NA ;
if power plant, hrs/yr 1,000, if seasonal, describe: Auxiliary boiler will operate
only during startup and shut down of the IGCC unit, or when steam from the
IGCC unit's HRSG is unavailable.

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? No
a. If yes, has "offset" been applied? _____
b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
c. If yes, list non-attainment pollutants. _____

2. Does best available control technology (BACT) apply to this source? Yes
If yes, see Section VI.

3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII. Yes

4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source? Yes

5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source? No

H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? No

a. If yes, for what pollutants? _____

b. If yes, in addition to the information required in this form,
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-
cation for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: Not applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

EP No. 12

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
PM	3.0	1.5	17-2.500(5) (c) BACT	BACT	3.0	1.5	Figure 2-15
SO ₂	2.6	1.3	17-2.500(5) (c) BACT	BACT	2.6	1.3	Figure 2-15
NO _x	7.9	4.0	17-2.500(5) (c) BACT	BACT	7.9	4.0	Figure 2-15
CO	4.3	2.2	17-2.500(5) (c) BACT	BACT	4.3	2.2	Figure 2-15
VOC	2.4	1.2	17-2.500(5) (c) BACT	BACT	2.4	1.2	Figure 2-15

¹See Section V, item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Low NOx Burner	NOx	25-30	NA	*
*Nitrogen oxide control for stationary combustion sources, EPA/625/5-86/020, July 1986, Page 36.				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Distillate Fuel Oil	NA	359.7	49.5

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: 0.05 Percent Ash: 0.01
 Density: 7.3 lbs/gal Typical Percent Nitrogen: 0.015
 Heat Capacity: 18,850 (HHV) BTU/lb 137,600 (HHV) BTU/gal
 Other Fuel Contaminants (which may cause air pollution): Trace metals (lead, vanadium,
 mercury, fluoride, beryllium, arsenic, cadmium, chromium).

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average NA Maximum NA

G. Indicate liquid or solid wastes generated and method of disposal.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 20 ft. Stack Diameter: 3.0 ft.
 Gas Flow Rate: 18,240 ACFM 8,990 DSCFM Gas Exit Temperature: 500 °F.
 Water Vapor Content: 10.4 % Velocity: 43 FPS

SECTION IV: INCINERATOR INFORMATION NA

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
Not applicable.
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
Vendor data--Attachment D.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
Not applicable.
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.) Not applicable.
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency). Not applicable.
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained. Not applicable.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
PSD Permit Application--Figure 2-1, Page 2-2.
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.
PSD Permit Application--Figure 2-15, Page 2-43.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No Subpart Dc

Contaminant	Rate or Concentration
Sulfur dioxide	Fuel sulfur content \leq 0.5 weight percent
Particulate matter	\leq 20 percent opacity (6-minute average)

- B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy). Summary of state BACT determination are provided in Tables 4-8 (PM), 4-15 (CO), and 4-38 (NO_x) of the PSD permit application.

Yes No

Contaminant	Rate or Concentration

- C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration
Particulate matter	3.0 lb/hr, 0.061 lb/MMBtu
Carbon monoxide	4.3 lb/hr, 0.087 lb/MMBtu
Volatile organic compounds	2.4 lb/hr, 0.049 lb/MMBtu
Sulfur dioxide	2.6 lb/hr, 0.053 lb/MMBtu
Nitrogen oxides	7.9 lb/hr, 0.159 lb/MMBtu

- D. Describe the existing control and treatment technology (if any). NA

1. Control Device/System:

2. Operating Principles:

3. Efficiency:

4. Capital Costs:

Explain method of determining

- 5. Useful Life:
- 7. Energy:
- 9. Emissions:

- 6. Operating Costs:
- 8. Maintenance Cost:

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft. b. Diameter: ft.
- c. Flow Rate: ACFM d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary). PSD Permit Application--Section 4.0

1.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy ² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Costs:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected: PSD Permit Application--Section 4.0

- 1. Control Device:
- 2. Efficiency:¹
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:²
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
 - a. (1) Company:
 - (2) Mailing Address:
 - (3) City:
 - (4) State:

Explain method of determining efficiency.
Energy to be reported in units of electrical power - KWH design rate.

- (5) Environmental Manager:
- (6) Telephone No.:
- (7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

- b. (1) Company:
- (2) Mailing Address:
- (3) City: (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:
- (7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. 2 no. sites 2 ~~PM10~~ ^{PM10} 1 (C) SO₂ 1 Wind spd/dic
 Period of Monitoring 04 / 01 / 91 to 03 / 31 / 92
month day year month day year

Other data recorded Ozone--1 site; other meteorological parameters--1 site

Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? Yes No

b. Was instrumentation calibrated in accordance with Department procedures?

Yes No Unknown

B. Meteorological Data Used for Air Quality Modeling

1. 5 Year(s) of data from 01 / 01 / 82 to 12 / 31 / 86
month day year month day year

2. Surface data obtained from (location) Tampa, Florida

3. Upper air (mixing height) data obtained from (location) Ruskin, Florida

4. Stability wind rose (STAR) data obtained from (location) Tampa, Florida

C. Computer Models Used

1. SCREEN (Version 88300) Modified? If yes, attach description.

2. ISCST2 (Version 92062) Modified? If yes, attach description.

3. ISCST2 (Version 92062) Modified? If yes, attach description.

4. MESOPUFF-II (Version 85360) Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data Auxiliary Boiler

Pollutant	Emission Rate	
CO	<u>0.38</u>	grams/sec
SO ₂	<u>0.33</u>	grams/sec

E. Emission Data Used in Modeling PSD Permit Application--Section 6.0

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

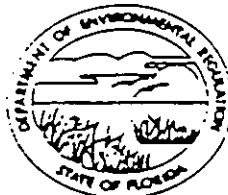
F. Attach all other information supportive to the PSD review. PSD Permit Application

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources. PSD Permit Application--Section 4.0

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology. PSD Permit Application--Section 4.0

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2500 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Electrical Power Generation [] New¹ [] Existing¹

APPLICATION TYPE: [] Construction [] Operation [] Modification

COMPANY NAME: Tampa Electric Company COUNTY: Polk

Identify the specific emission point source(s) addressed in this application (i.e. Line
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Polk Power Station Unit No. 1
and Future CC/CT Units

SOURCE LOCATION: Street State Road 37 City N/A

UTM: East 402.45 km North 3,067.35 km

Latitude 27° 43' 43" N Longitude 81° 59' 23" W

APPLICANT NAME AND TITLE: A. Spencer Autry, Director, Environmental

APPLICANT ADDRESS: P.O. Box 111, Tampa, Florida 33601-0111

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Tampa Electric Company

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: *A. Spencer Autry*

A. Spencer Autry, Director, Environmental
Name and Title (Please Type)

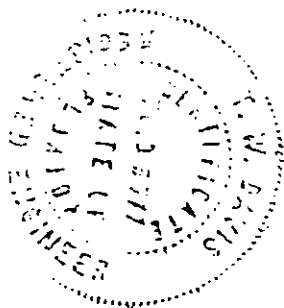
Date: 7/24/94 Telephone No. 813/228-4838

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Thomas W. Davis

Thomas W. Davis

Name (Please Type)

Environmental Consulting & Technology, Inc.

Company Name (Please Type)

P.O. Box 8188, Gainesville, Florida 32605-8188

Mailing Address (Please Type)

Florida Registration No. 36777 Date: July 25, 1992 Telephone No. 904/336-0444

SECTION II: GENERAL PROJECT INFORMATION

- A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary. (See Section 2.0 of the PSD permit application).

Construction of a nominal 1,150-MW power plant. Unit No. 1 will consist of a nominal 260-MW integrated coal gasification combined cycle facility, including ancillary equipment. The remaining generating facilities will be made up of stand-alone combined cycle units and combustion turbines. Project will result in full compliance with all applicable FDER regulations.

- B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction January 1994 Completion of Construction July 1995

- C. Costs of pollution control system(s): (Notes: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

See Section 4.0 of the PSD Permit Application (SCA Volume 4, Appendix 11.1.3).

- D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Not applicable.

E. Requested permitted equipment operating time: hrs/day 24; days/wk 7; wks/yr 52;
if power plant, hrs/yr 8,760; if seasonal, describe: _____

Note; some generating units will be permitted for less than 8,760 hrs/yr of operation.

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? No
a. If yes, has "offset" been applied? _____
b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
c. If yes, list non-attainment pollutants. _____

2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. Yes

3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII. Yes

4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source? Yes

5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source? No

H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? No

a. If yes, for what pollutants? _____

b. If yes, in addition to the information required in this form,
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-
cation for any answer of "No" that might be considered questionable.

Initial Year: 7F CT (EP 1A or 1B) Distillate Fuel Oil

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used In your Process, if applicable: Not applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
PM	27.0	20.1	17-2.500(5) (C) BACT	BACT	27.0	20.1	Figure 2-15
SO	92.2	49.1	17-2.500(5) (C) BACT	BACT	92.2	49.1	Figure 2-15
NO	311.0	164.7	17-2.500(5) (C) BACT	BACT	311.0	164.7	Figure 2-15
CO	99.0	86.7	17-2.500(5) (C) BACT	BACT	99.0	86.7	Figure 2-15
VOC	32.0	28.0	17-2.500(5) (C) BACT	BACT	32.0	28.0	Figure 2-15

¹See Section V, item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

Demonstration Period: 7F CT (EP 1B) Syngas/Distillate Oil

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: Not applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
PM	72.0	315	17-2.500 (5) (c) BACT	BACT	72.0	315	Figure 1B
SO ₂	518.0	2,269	17-2.500 (5) (c) BACT	BACT	518.0	2,269	Figure 1B
NO _x	664.0	2,908	17-2.500 (5) (c) BACT	BACT	664.0	2,908	Figure 1B
CO	99.0	434	17-2.500 (5) (c) BACT	BACT	99.0	434	Figure 1B
VOC	3.0	40	17-2.500 (5) (c) BACT	BACT	3.0	40	Figure 1B

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2, Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

Post-Demonstration Period: 7F CT (EP-1B) Syngas/Distillate Oil

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: Not applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/xxx hr	T/yr	
PM	72.0	315	17-2.500(5) (c) BACT	BACT	72.0	315	Figure 2-15
SO ₂	518.0	2,269	17-2.500(5) (c) BACT	BACT	518.0	2,269	Figure 2-15
NO _x	222.5	1,044	17-2.500(5) (c) BACT	BACT	222.5	1,044	Figure 2-15
CO	98.0	429	17-2.500(5) (c) BACT	BACT	98.0	429	Figure 2-15
VOC	3.0	40	17-2.500(5) (c) BACT	BACT	3.0	40	Figure 2-15

¹See Section V, item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

Tail Gas Treating Unit Thermal Oxidizer (EP 13)

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: Not applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed ² Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
PM	13.1	57.0	17-2.500 (5) (c) BACT	BACT	13.1	57.0	Figure 2-15
SO ₂	52.0	228.0	17-2.500 (5) (c) BACT	BACT	52.0	228.0	Figure 2-15
NO _x	2.6	11.4	17-2.500 (5) (c) BACT	BACT	2.6	11.4	Figure 2-15
CO	1.4	6.1	17-2.500 (5) (c) BACT	BACT	1.4	6.1	Figure 2-15
VOC	0.8	3.5	17-2.500 (5) (c) BACT	BACT	0.8	3.5	Figure 2-15

¹See Section V, item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(c)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission if source operated without control (See Section V, Item 3).

Sulfuric Acid Plant Thermal Oxidizer (EP 15)

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: Not applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
PM	12.8	56.1	17-2.500(5) (c) BACT	BACT	12.8	56.1	Figure 2-15
SO ₂	45.3	198.4	17-2.500(5) (c) BACT	BACT	45.3	198.4	Figure 2-15
NO _x	2.6	11.4	17-2.500(5) (c) BACT	BACT	2.6	11.4	Figure 2-15
CO	1.4	6.1	17-2.500(5) (c) BACT	BACT	1.4	6.1	Figure 2-15
VOC	0.8	3.5	17-2.500(5) (c) BACT	BACT	0.8	3.5	Figure 2-15

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

Coal Handling Sources (EP 16 - EP 23)

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: Not applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable Emission ³ lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
PM	18.3	10.7	17-2.500 (5) (C) BACT	BACT	18.3	10.7	Figure 2-16

¹See Section V, item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

IGCC Process Vent Sources (EP 24-- EP 28)

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: Not applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed ⁴ Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/1000 hr	T/yr	
PM	9.3*	15.3	17-2.500 (5) (c) BACT	BACT	9.3*	15.3	Figure 2-16

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

*Excludes EP 27 which occurs for approximately 30 minutes every 4 weeks.

IGCC Process Vent and Fugitive Sources (EP 29 - EP 43)

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: Not applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed ² Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/1000 hr	T/yr	
H ₂ S	1.70	4.38	NA	NA	1.70	4.38	Figure 2-17

¹See Section V, item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

IGCC Process Vent and Fugitive Sources (EPs 32, 35, 40 - 46)

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: Not applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
NH ₃	51.0	9.5	NA	NA	51.0	9.5	Figure 2-17

¹See Section V, item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

IGCC Fugitive Sources (EP Nos. 32 - 35 and 40 - 43)

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

1. Raw Materials and Chemicals Used in your Process, if applicable: Not applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

3. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

4. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/y	X hr	
CO	2.53	11.1	17-2.550 (5) (C) BACT	BACT	2.53	11.1	Figure 2-17

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

7EA CTs (Per CT) Simple-Cycle Natural Gas (Hourly Rates)
(EP Nos. 6 - 11)

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

1. Raw Materials and Chemicals Used in your Process, if applicable: Not applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

3. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

5. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual* T/yr			lbs/xx hr	T/yr*	
PM	11.0	41	17-2.500(5) (c) BACT	BACT	11.0	41	Figure 2-15
SO ₂	36.0	109	17-2.500(5) (c) BACT	BACT	36.0	109	Figure 2-15
NO _x	35.0	169	17-2.500(5) (c) BACT	BACT	35.0	169	Figure 2-15
CO	59.0	163	17-2.500(5) (c) BACT	BACT	59.0	163	Figure 2-15
VOC	10.0	28	17-2.500(5) (c) BACT	BACT	10.0	28	Figure 2-15

¹See Section V, item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, item 3).

*Annual rates based on natural gas and distillate fuel oil-firing annual capacity factors of 50 and 10 percent, respectively.

7EA CTs (Per CT/HRS) Combined Cycled Natural Gas (Hourly Rates)
(EP Nos. 2A - 5A or 2B - 5B)

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: Not applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual* T/yr			lbs/xx hr	T/yr*	
PM	11.0	65	17-2.500(5) (c) BACT	BACT	11.0	65	Figure 2-15
SO ₂	36.0	180	17-2.500(5) (c) BACT	BACT	36.0	180	Figure 2-15
NO _x	35.0	327	17-2.500(5) (c) BACT	BACT	35.0	327	Figure 2-15
CO	59.0	273	17-2.500(5) (c) BACT	BACT	59.0	273	Figure 2-15
VOC	10.0	45	17-2.500(5) (c) BACT	BACT	10.0	45	Figure 2-15

¹See Section V, item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2, Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

*Annual rates based on natural gas and distillate fuel oil-firing annual capacity factors of 100 and 25 percent, respectively.

7EA CTs (Per CT) Simple Cycle Distillate Fuel Oil (Hourly Rates)
(EP Nos: 6 - 11)

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: Not applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed ² Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual* T/yr			lbs/xx hr	T/yr*	
PM	20.5	41	17-2.500(5) (c) BACT	BACT	20.5	41	Figure 2-15
SO ₂	52.7	109	17-2.500(5) (c) BACT	BACT	52.7	109	Figure 2-15
NO _x	181.0	169	17-2.500(5) (c) BACT	BACT	181.0	169	Figure 2-15
CO	71.0	163	17-2.500(5) (c) BACT	BACT	71.0	163	Figure 2-15
VOC	10.0	28	17-2.500(5) (c) BACT	BACT	10.0	28	Figure 2-15

¹See Section V, item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

*Annual rates based on natural gas and distillate fuel oil-firing annual capacity factors of 50 and 10 percent, respectively.

7EA CTs (Per CT/HRSG) Combined-Cycle Distillate Fuel Oil (Hourly Rates)
(EP Nos. 2A - 5A or 2B - 5B)

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: Not applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

- 1. Total Process Input Rate (lbs/hr): Not applicable
- 2. Product Weight (lbs/hr): Not applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual ^x T/yr			lbs/xxx hr	T/yr*	
PM	20.5	65	17-2.500(5) (c) BACT	BACT	20.5	65	Figure 2-15
SO ₂	52.7	180	17-2.500(5) (c) BACT	BACT	52.7	180	Figure 2-15
NO _x	181.0	327	17-2.500(5) (c) BACT	BACT	181.0	327	Figure 2-15
CO	71.0	273	17-2.500(5) (c) BACT	BACT	71.0	273	Figure 2-15
VOC	10.0	45	17-2.500(5) (c) BACT	BACT	10.0	45	Figure 2-15

¹See Section V, item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

*Annual rates based on natural gas and distillate fuel oil-firing annual capacity factors of 100 and 25 percent, respectively.

Distillate Fuel Oil Storage Tanks (Per Tank)

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: Not applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1) Not applicable

1. Total Process Input Rate (lbs/hr): _____

2. Product Weight (lbs/hr): _____ Not applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed ² Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum * Actual lbs/hr	Actual T/yr			lbs/yr	hr* T/yr	
VOC	0.49	2.16	17-2.500(5) (C) BACT	BACT	0.49	2.16	Figure 2-15

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

*Average hourly rate based on 8,760 hours per year/

7F CT Distillate Oil

J. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Water Injection	NO _x	~80%	NA	*
Low Sulfur Fuel	SO ₂	NA	NA	NA
*Summary of NO _x Control Technologies and Their Availability and Extent of Application, EPA-450/3-92-004, February 1992.				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Distillate Fuel Oil	NA	13,860	1,907

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: Distillate Fuel Oil

Percent Sulfur: 0.05 Percent Ash: 0.01

Density: 7.3 lbs/gal Typical Percent Nitrogen: 0.015

Heat Capacity: 18,850 (HHV) BTU/lb 137,600 (HHV) BTU/gal

Other Fuel Contaminants (which may cause air pollution): Trace metals (lead, vanadium, mercury, fluoride, beryllium, arsenic, cadmium, chromium)

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average NA Maximum NA

G. Indicate liquid or solid wastes generated and method of disposal.

7F CT Syngas

J. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (if applicable)	Basis for Efficiency (Section V Item 5)
Nitrogen Injection	NO _x	~85%	NA	*
IGCC--Acid Gas Removal & Sulfur Recovery	SO ₂	95.6	NA	Vendor Data
*Summary of NO _x Control Technologies and Their Availability and Extent of Application, EPA-450/3-92-004, February 1992.				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Coal Derived Syngas	NA	7.048	1.762

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: Coal Derived Syngas

Percent Sulfur: 0.07 Percent Ash: Neg.

Density: 0.0562 at 60°F lbs/ft³ Typical Percent Nitrogen: 6.03

Heat Capacity: 4,390 (HHV) BTU/lb 250 (HHV) BTU/g ft³

Other Fuel Contaminants (which may cause air pollution): Trace metals (lead, fluoride, mercury, beryllium, arsenic, cadmium, chromium)

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average NA Maximum NA

G. Indicate liquid or solid wastes generated and method of disposal.

Tail Gas Treating Unit Thermal Oxidizer

J. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Low NO _x Burner	NO _x	25 - 30	NA	*
Low Sulfur Fuels	SO ₂	NA	NA	NA
*Nitrogen Oxide Control for Stationary Combustion Sources, EPA/625/5-86/020, July 1986.				

E. Fuels (Thermal oxidizer may use any of the following fuels)

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Distillate Fuel Oil	NA	117.7	16.2
Coal Derived Syngas	NA	0.0648	16.2
Natural Gas	NA	0.0159	16.2

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: Natural Gas
 Percent Sulfur: 10 gr/100 scf
 Density: 0.0442 at 60°F lbs/ft³
 Heat Capacity: 23,130 (HHV) BTU/lb
 Typical Percent Nitrogen: Neg.
 Other Fuel Contaminants (which may cause air pollution): Trace metals (lead, mercury)

F. If applicable, indicate the percent of fuel used for space heating

Annual Average NA Maximum NA

G. Indicate liquid or solid wastes generated and method of disposal.

Sulfuric Acid Plant Thermal Oxidizer

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Low NO _x burner	NO _x	25 to 30	NA	*
Low sulfur fuels	SO ₂	NA	NA	NA
*Nitrogen oxide control for stationary combustion sources, EPA/625/5-86/020, July 1986.				

E. Fuels (Thermal oxidizer may use any of the following fuels.)

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Distillate fuel oil	NA	276.2	38.0
Coal-derived syngas	NA	0.152	38.0
Natural gas	NA	0.037	38.0

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ STU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

7EA CTs Natural Gas

J. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Dry-Low NO _x Combustor	NO _x	~95%	NA	*
Low Sulfur Fuel	SO ₂	NA	NA	NA
*Summary of NO _x Control Technologies and Their Availability and Extent of Application, EPA-450/3-92-004, February 1992.				

E. Fuels (Per CT)

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	NA	1,049	1,072

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: 10 gr/100 scf Percent Ash: Neg.
 Density: 0.0442 at 60°F lbs/ft³ Typical Percent Nitrogen: Neg.
 Heat Capacity: 23,130 (HHV) BTU/lb 1,022 (HHV) BTU/lb ft³
 Other Fuel Contaminants (which may cause air pollution): Trace metals (lead, mercury)

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average NA Maximum NA

G. Indicate liquid or solid wastes generated and method of disposal.

J. Control Devices: (See Section V, Item A)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ STU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

7EA CTs Distillate Oil

J. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Water Injection	NO _x	~80%	NA	*
Low Sulfur Fuel	SO ₂	NA	NA	NA
*Summary of NO _x Control Technologies and Their Availability and Extent of Application, EPA-450/3-92-004, February 1992.				

E. Fuels (Per CT)

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Distillate Fuel Oil	NA	8,103	1,115

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: 0.05 Percent Ash: 0.01
 Density: 7.3 ^{gal}/_{lbs/gal} Typical Percent Nitrogen: 0.015
 Heat Capacity: 18,850 (HHV) BTU/lb 137,600 (HHV) BTU/gal
 Other Fuel Contaminants (which may cause air pollution): Trace metals (lead, vanadium, mercury, fluoride, beryllium, arsenic, cadmium, chromium)

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average NA Maximum NA

G. Indicate liquid or solid wastes generated and method of disposal.

J. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____
 Density: _____ lbs/gal Typical Percent Nitrogen: _____
 Heat Capacity: _____ BTU/lb _____ STU/gal
 Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

7F CT Distillate Oil, Simple Cycle
at 100 percent load, 59°F ambient temperature

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 150 ft. Stack Diameter: 19 ft.
Gas Flow Rate: 2,296,583 ACFM 707,083 DSCFM Gas Exit Temperature: 1,068 °F.
Water Vapor Content: 10.9 % Velocity: 135 FPS

SECTION IV: INCINERATOR INFORMATION NA

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

7F CT Syngas; Combined Cycle
at 100 percent load, 59°F ambient temperature

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 150 ft. Stack Diameter: 19 ft.
Gas Flow Rate: 1,156,797 ACFM 795,289 DSCFM Gas Exit Temperature: 265 °F.
Water Vapor Content: 5.6 % Velocity: 68 FPS

SECTION IV: INCINERATOR INFORMATION NA

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [] Cyclone [] Wet Scrubber [] Afterburner
[] Other (specify) _____

Tail Gas Treating Unit Thermal Oxidizer

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 199 ft. Stack Diameter: 4.5 ft.
 Gas Flow Rate: 33,390 ACFM 8,758 DSCFM Gas Exit Temperature: 1,400 °F.
 Water Vapor Content: 7.6 % Velocity: 35 FPS

SECTION IV: INCINERATOR INFORMATION NA

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Patholog-ical)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____
 Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____
 Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____
 Manufacturer _____
 Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____
 Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Sulfuric Acid Plant Thermal Oxidizer

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 199 ft. Stack Diameter: 7 ft.
 Gas Flow Rate: 74,760 ACFM 20,585 DSCFM Gas Exit Temperature: 1,400 °F.
 Water Vapor Content: 3.0 % Velocity: 32 FPS

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

7EA CTs Natural Gas, Simple Cycle
at 100 percent load, 59°F ambient temperature (per CT)

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 75 ft. Stack Diameter: 18 ft.
Gas Flow Rate: 1,435,205 ACFM 487,187 DSCFM Gas Exit Temperature: 985 °F.
Water Vapor Content: 7.1 % Velocity: 94 FPS

SECTION IV: INCINERATOR INFORMATION NA

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr.

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

7EA CTs Natural Gas, Combined Cycle
at 100 percent load, 59°F ambient tempertuare (per CT/HRSG)

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 150 ft. Stack Diameter: 14.5 ft.
Gas Flow Rate: 713,361 ACFM 490,761 DSCFM Gas Exit Temperature: 253 °F.
Water Vapor Content: 7.1 % Velocity: 72 FPS

SECTION IV: INCINERATOR INFORMATION NA

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr.

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

7EA CTs Distillate Oil, Simple Cycle
at 100 percent load, 59°F ambient temperature (per CT)

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 75 ft. Stack Diameter: 18 ft.
Gas Flow Rate: 1,465,741 ACFM 491,219 DSCFM Gas Exit Temperature: 980 °F.
Water Vapor Content: 8.6 % Velocity: 96. FPS

SECTION IV: INCINERATOR INFORMATION NA

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____
Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____
Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr.
Manufacturer _____
Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____
Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

7EA CTs Distillate Oil, Combined Cycle
at 100 percent load, 59°F ambient temperature (per CT/HRSG)

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 150 ft. Stack Diameter: 14.5 ft.
Gas Flow Rate: 723,269 ACFM 492,305 DSCFM Gas Exit Temperature: 249 °F.
Water Vapor Content: 8.6 % Velocity: 73 FPS

SECTION IV: INCINERATOR INFORMATION NA

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
Not applicable
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made. Vendor data--Attachments B, C, and E.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
Not applicable
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.) Not applicable
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency). PSD Permit Application: Section 4.0.
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained. PSD Permit Application Figures 2-2 through 2-13.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
PSD Permit Application: Figure 2-1, Page 2-2.
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.
PSD Permit Application: Figure 2-15, Page 2-43.

ER Form 17-1.202(1)

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No Subpart GG

Contaminant	Rate or Concentration
Nitrogen oxides	≤ 75 ppmvd at 15 percent O_2 with corrections for FBN and efficiency
Sulfur dioxide	≤ 150 ppmvd at 15 percent O_2 or fuel sulfur content ≤ 0.8 weight percent

- B. Has EPA declared the best available control technology for this class of sources (if yes, attach copy). Summary of state BACT determinations are provided in Tables 4-6 (PM; Coal-Fired Boilers), 4-10 (PM, CTs), 4-14 (CO, Coal-Fired Boilers), 4-15 (VOC, Coal-Fired Boilers), 4-25 (CO and VOC; CTs), 4-29 (SO₂, Coal-Fired Boilers), 4-36 (NO_x, Coal Fired Boilers), 4-40 (SO₂, CTs), and 4-43 (NO_x, CTs) of the PSD Permit Application.

Yes No

Contaminant	Rate or Concentration
4-29 (SO ₂ , Coal-Fired Boilers), 4-36 (NO _x , Coal Fired Boilers), 4-40 (SO ₂ , CTs), and 4-43 (NO _x , CTs) of the PSD Permit Application.	

- C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration
Particulate matter	Tables 4-9 (Page 4-28) and 4-12 (Page 4-35)
Carbon monoxide and VOC	Tables 4-18 (Page 4-49) and 4-27 (Page 4-67)
Sulfur dioxide	Tables 4-31 (Page 4-81) and 4-42 (Page 4-118)
Nitrogen oxides	Tables 4-39 (Page 4-110) and 4-45 (Page 4-130)

- D. Describe the existing control and treatment technology (if any). NA

1. Control Device/System:

2. Operating Principles:

3. Efficiency:

4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height:

ft.

b. Diameter:

ft.

c. Flow Rate:

ACFM

d. Temperature:

°F.

e. Velocity:

FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary). PSD Permit Application--Section 4.0

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy ²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

J.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

A.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected: PSD Permit Application--Section 4.0

1. Control Device:

2. Efficiency:¹

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:²

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

Explain method of determining efficiency.

Energy to be reported in units of electrical power - KWH design rate.

- (5) Environmental Manager:
- (6) Telephone No.:
- (7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

- b. (1) Company:
- (2) Mailing Address:
- (3) City: (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:
- (7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. 2 no. sites 2 ~~PM₁₀~~ ^{PM₁₀} 1 (C) SO₂ 1 Wind spd/dir
 Period of Monitoring 04 / 01 / 91 to 03 / 31 / 92
month day year month day year

Other data recorded Ozone--1 site; other meteorological parameters--1 site

Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

- a. Was instrumentation EPA referenced or its equivalent? Yes No
- b. Was instrumentation calibrated in accordance with Department procedures?
 Yes No Unknown

B. Meteorological Data Used for Air Quality Modeling

1. 5 Year(s) of data from 01 / 01 / 82 to 12 / 31 / 86
month day year month day year

- 2. Surface data obtained from (location) Tampa, Florida
- 3. Upper air (mixing height) data obtained from (location) Ruskin, Florida
- 4. Stability wind rose (STAR) data obtained from (location) Tampa, Florida

C. Computer Models Used

- 1. SCREEN (Version 88300) Modified? If yes, attach description.
- 2. ISCST2 (Version 92062) Modified? If yes, attach description.
- 3. ISCLT2 (Version 92062) Modified? If yes, attach description.
- 4. MESOPUFF-II (Version 85360) Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data PSD Permit Application--Section 4.0

Pollutant	Emission Rate	
TEP	_____	grams/sec
SO ²	_____	grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time. PSD Permit Application--Section 6.0

F. Attach all other information supportive to the PSD review. PSD Permit Application

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources. PSD Permit Application--Section 4.0

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology. PSD Permit Application--Section 4.0