

Department of  
Environmental Protection  
Division of Air Resource Management

**SUBMITTED APPLICATION REPORT**  
**APPLICATION FOR AIR PERMIT - LONG FORM**

--- Form Effective 02/02/06 ---

Application Number: 1590- 1  
Application Name: SMITH HERT & MOBOTEC DEMONSTRATION  
Date Submitted: 08 June 2007

**I. APPLICATION INFORMATION**

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

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

**Air Operation Permit** - Use this form to apply for:

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

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

**To ensure accuracy, please see form instructions.**

**Identification of Facility**

1. Facility Owner/Company Name: GULF POWER COMPANY
2. Site Name: LANSING SMITH PLANT
3. Facility Identification Number: 0050014
4. Facility Location... Street Address or Other Locator: 4300 COUNTY ROAD 2300 4300 COUNTY ROAD 2300 City: LYNN HAVEN County: BAY Zip Code: 32409

<p>5. Relocatable Facility?</p> <p><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No</p>	<p>6. Existing Title V Permitted Facility</p> <p><input type="checkbox"/> Yes            <input type="checkbox"/> No</p>
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**Application Contact**

1. Application Contact Name: GLENN WATERS	Application Contact Job Title: Special Projects & Environmental Assets Coordinator
2. Application Contact Mailing Address... Organization/ Firm: GULF POWER Street Address: ONE ENERGY PLACE City: PENSACOLA State: FL Zip Code: 32520-0328	
3. Application Contact Telephone Numbers... Telephone: (850) 444-6527 ext. Fax: (850) 444-6217	
4. Application Contact Email Address: gdwaters@southernco.com	

## **Purpose of Application**

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

### **Air Construction Permit**

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

### **Air Operation Permit**

- Initial Title V air operation permit.
- Title V air operation permit revision.
- Title V air operation permit renewal.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

### **Air Construction Permit and Revised/Renewal Title V Air Operation Permit**

#### **(Concurrent Processing)**

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

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

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

## **Application Comment**

This construction project is to gather engineering and plant performance data for the purpose of designing control strategies to meet CAIR and CAMR. Two demonstration projects are proposed for nitrogen oxides and mercury emissions reduction. The HERT (High Energy Reagent Technology) project is a NOx Selective Non-Catalytic Reduction demonstration test to validate the technology and to determine optimal injection locations. The MOBOTEC Project is an EPRI research sponsored mercury sorbent removal technology demonstration to gather data for future engineering and design work.

**Scope of Application**

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type
2	BOILER NUMBER 2 - 2,246.2 MMBTU/HOUR (PHASE II ACID RAIN)	AC1F
1	BOILER NUMBER 1 - 1,944.8 MMBTU/HOUR (PHASE II ACID RAIN)	AC1F

*Note: The fee calculation information associated with this application may be accessed from the Main Menu of ESPAP.*

**Owner/Authorized Representative Statement**

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

1. Owner/Authorized Representative Name:	Owner/Authorized Representative Job Title:
PENNY MANUEL	Vice President and SPO
2. Owner/Authorized Representative Mailing Address...	
Organization/ Firm:	GULF POWER COMPANY
Street Address: ONE ENERGY PLACE	
City: PENSACOLA State: FL	Zip Code: 32520-0001
3. Owner/Authorized Representative Telephone Numbers...	
Telephone: (850) 444-6383 ext. Fax: (850) 444-6744	
4. Owner/Authorized Representative Email Address: pmmanuel@southernco.com	
5. Owner/Authorized Representative Statement:	
<p>By entering my PIN below, I certify that I am the owner/authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.</p>	

**Professional Engineer Certification**

1. Professional Engineer Name: TOM DAVIS  
Registration Number: 36777  
Professional Engineer Job Title: Principal Engineer

2. Professional Engineer Mailing Address...  
Organization/  
Firm: ECT, INC.  
Street Address: 11211 NW 98TH STREET  
City: GAINESVILLE State: FL Zip Code: 32606-5004

3. Professional Engineer Telephone Numbers...  
Telephone: (352) 248-3351 ext. Fax: (352) 332-6722

4. Professional Engineer Email Address: TDAVIS@ECTINC.COM

5. Professional Engineer Statement:

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

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

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

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

(4) If the purpose of this application is to obtain an air construction permit (check here  , if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here  , if

so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

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

\* Explain any exception to the certification statement.

Professional Engineer Exception Statement:

## II. FACILITY INFORMATION

### A. GENERAL FACILITY INFORMATION

#### Facility Location and Type

1. Facility UTM Coordinates... Zone 16 East (km) 625.03 North (km) 3349.08		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) 30° 16' 8" N Longitude (DD/MM/SS) 85° 42' 1" W	
3. Governmental Facility Code: (0) NOT OWNED OR OPERATED BY A FEDERAL, STATE, OR LOCAL GOVERNMENT	4. Facility Status Code: Active	5. Facility Major Group SIC Code: (49) ELECTRIC, GAS AND SANITARY SERVICES	6. Facility SIC(s): Primary: 4911
7. Facility Comment:			

#### Facility Contact

1. Facility Contact Name: MARIE LARGILLIERE	Facility Contact Job Title: Compliance Team Leader
2. Facility Contact Mailing Address...  Organization/ Firm: GULF POWER COMPANY  Street Address: ONE ENERGY PLACE  City: PENSACOLA State: FL      Zip Code: 32520-0350	
3. Facility Contact Telephone Numbers...  Telephone: (850) 520-3490 ext. Fax: (850) 520-3451	
4. Facility Contact Email Address:	

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

1. <input type="checkbox"/> Small Business Stationary Source	<input type="checkbox"/> Unknown
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2.	<input type="checkbox"/> Synthetic Non-Title V Source
3.	<input checked="" type="checkbox"/> Title V Source
4.	<input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)
5.	<input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs
6.	<input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)
7.	<input type="checkbox"/> Synthetic Minor Source of HAPs
8.	<input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60)
9.	<input type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)
10.	<input type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)
11.	<input type="checkbox"/> Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))
12.	Facility Regulatory Classifications Comment:

**List of Pollutants Emitted by Facility**

1. Pollutants Emitted	2. Pollutant Classification	Emissions Cap [Y or N]?
NOX	(A) ACTUAL OR POTENTIAL EMISSIONS ARE ABOVE THE APPLICABLE MAJOR SOURCE THRESHOLDS.	Y
PM	(A) ACTUAL OR POTENTIAL EMISSIONS ARE ABOVE THE APPLICABLE MAJOR SOURCE THRESHOLDS.	N
CO	(A) ACTUAL OR POTENTIAL EMISSIONS ARE ABOVE THE APPLICABLE MAJOR SOURCE THRESHOLDS.	N
SO2	(A) ACTUAL OR POTENTIAL EMISSIONS ARE ABOVE THE APPLICABLE MAJOR SOURCE THRESHOLDS.	N
PM10	(A) ACTUAL OR POTENTIAL EMISSIONS ARE ABOVE THE APPLICABLE MAJOR SOURCE THRESHOLDS.	N
VOC	(B) ACTUAL AND POTENTIAL EMISSIONS BELOW ALL APPLICABLE MAJOR SOURCE THRESHOLDS	N
PB	(B) ACTUAL AND POTENTIAL EMISSIONS BELOW ALL APPLICABLE MAJOR SOURCE THRESHOLDS	N
H107	(C) CLASS IS UNKNOWN	N
H106	(C) CLASS IS UNKNOWN	N
SAM	(C) CLASS IS UNKNOWN	N
TH	(C) CLASS IS UNKNOWN	N
H150	(C) CLASS IS UNKNOWN	N
H046	(C) CLASS IS UNKNOWN	N
H027	(C) CLASS IS UNKNOWN	N
H015	(C) CLASS IS UNKNOWN	N
HAPS	(C) CLASS IS UNKNOWN	N

**B. Emissions Caps**

**Facility-Wide or Multi-Unit Emissions Caps**

1. Pollutant Subject to Emissions Cap	2. Facility Wide Cap [Y or N]?(all units)	3. Emissions Unit ID No.s Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
NOX	Yes	All		6666	AMBIENT

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

NOX: Smith has a facility-wide emissions cap for NOx per the Gulf-FDEP Ozone Agreement.

**C. FACILITY ADDITIONAL INFORMATION**

**Additional Requirements for All Applications, Except as Otherwise Stated**

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Applicable                       Previously Submitted,                       Attachment  
Date: 22-JUN-04

2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Applicable                       Previously Submitted,                       Attachment  
Date: 22-JUN-04

3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Applicable                       Previously Submitted,                       Attachment  
Date: 22-JUN-04

**Additional Requirements for Air Construction Permit Applications**

1. Area Map Showing Facility Location: (Not applicable for existing permitted facility)

Applicable                       Attachment

2. Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL):

Applicable                       Attachment

3. Rule Applicability Analysis:

Applicable                       Attachment

4. List of Exempt Emissions Units (Rule 62-210.300(3), F.A.C.): (Not applicable if no exempt units at facility)

Applicable                       Attachment

5. Fugitive Emissions Identification:

Applicable     Attachment

6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.):

Applicable                       Attachment

7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.):

Applicable                       Attachment

8. Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.):

Applicable                       Attachment

9. Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.):

Applicable     Attachment

10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.):

Applicable     Attachment

**Additional Requirements for FESOP Applications**

1. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.): (Not applicable if no exempt units at facility)

Applicable  Attachment

**Additional Requirements for Title V Air Operation Permit Applications**

1. List of Insignificant Activities: (Required for initial/renewal applications, but not for revision applications)

Applicable  Attachment

2. Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought):

Applicable  Attachment

3. Compliance Report and Plan: (Required for all initial/revision/renewal applications):

Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.

Applicable  Attachment

4. List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only):

Applicable  Equipment/Activities On site but Not Required to be Individually Listed  Attachment

5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only):

Applicable  Attachment

6. Requested Changes to Current Title V Air Operation Permit:

Applicable  Attachment

**Other Information Regarding this Facility:**

4. Other Facility Information:

Included  Attachment

**Additional Requirements Comment**

**Facility Attachments**

Supplemental Item	Electronic File Name	Attachment Description	Electronic Document	Date Uploaded
Rule Applicability Analysis	DOCS-#262695-v1-Smith_Facility_list_-_FDEP.DOC	Updated facility rule analysis for FDEP requirements.	Yes	06/04/2007
	DOCS-#262692-v1-Smith_Facility_list_-_EPA_.DOC	Updated facility rule analysis for EPA requirements.	Yes	06/04/2007

### III. EMISSIONS UNIT INFORMATION

#### A. GENERAL EMISSIONS UNIT INFORMATION

##### Title V Air Operation Permit Emissions Unit Classification

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

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

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

##### Emissions Unit Description and Status

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

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

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

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

2. Description of Emissions Unit Addressed in this Section:  
 BOILER NUMBER 1 - 1,944.8 MMBTU/HOUR (PHASE II ACID RAIN)

3. Emissions Unit Identification Number: 1

4. Emissions Unit Status Code: <p style="text-align: center;">A</p>	5. Commence Construction Date:	6. Initial Startup Date: <p style="text-align: center;">11-MAY-65</p>	7. Emissions Unit Major Group SIC Code: <p style="text-align: center;">49</p>	8. Acid Rain Unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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9. Package Unit Model Number:  
 Manufacturer:

10. Generator Nameplate Rating: 175 MW

11. Emissions Unit Comment:  
 Units -001 and -002 share a common stack

**Emissions Unit Control Equipment**

Code	Equipment	Description
10	ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)	Hot Precipitator Buell Model #BAL 2X34N333-4-3P and Cold Precipitator General Electric Model #BE1.2X21(12) 30-1.5-1.5-4.2P
107	SELECTIVE NONCATALYTIC REDUCTION FOR NOX	The HERT Project is a SNCR demonstration project.



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

#### Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram:	2. Emission Point Type Code: 2 - An emission point serving 2 or more EUs capable of simultaneous operation	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: ● 2 - BOILER NUMBER 2 - 2,246.2 MMBTU/HOUR (PHASE II ACID RAIN)		
5. Discharge Type Code: (V) A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A VERTICAL/NEARLY VERTICAL DIRECTION	6. Stack Height: 199 feet	7. Exit Diameter: 18 feet
8. Exit Temperature: 260° F	9. Actual Volumetric Flow Rate: 1567967 acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet
13. Emission Point UTM Coordinates... Zone: 16            East (km): 625.2 North (km): 3349.1		14. Emission Point Latitude/ Longitude... Latitude: 30° 16' 7" N Longitude: 85° 41' 7" W
15. Emission Point Comment: Units -001 and -002 share a common stack.		

**D. SEGMENT (PROCESS/FUEL) INFORMATION****Segment Description and Rate:** Segment 1 of 3

1. Segment Description (Process/Fuel Type): Boiler fired with Pulverized Bituminous Coal. Emissions related to tons burned.		
2. Source Classification Code (SCC): 10100212		3. SCC Units: Tons Bituminous Coal Burned
4. Maximum Hourly Rate: 73.7	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 4.1	8. Maximum % Ash: 9.9	9. Million Btu per SCC Unit: 24
10. Segment Comment: Minimum MBTU per SCC unit is 23. Average MBTU is 24.		
Is this a valid segment? Yes		

**Segment Description and Rate:** Segment 2 of 3

1. Segment Description (Process/Fuel Type): Boiler fired with #2 fuel oil and "on spec." used oil. Emissions related to thousand gallons burned.		
2. Source Classification Code (SCC): 10100501		3. SCC Units: 1000 Gallons Distillate Oil (No. 1 & 2) Burned
4. Maximum Hourly Rate: 1.11	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: .5	8. Maximum % Ash:	9. Million Btu per SCC Unit: 138
10. Segment Comment: The maximum % Ash is approximately 0.05 %. Item 8 above will not accept low % number.		
Is this a valid segment? Yes		

**Segment Description and Rate:** Segment 3 of 3

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC): 10101302	3. SCC Units: 1000 Gallons Waste Oil Burned	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 132
10. Segment Comment: Used oil specification: Arsenic 5 PPM, Cadmium 2 PPM, Chromium 10 PPM, Lead 100 PPM, Total Halogens 1000 PPM, PCB50 ppm.		
Is this a valid segment? Yes		

**E. EMISSIONS UNIT POLLUTANTS****List of Pollutants Emitted by Emissions Unit**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code	Valid?
CO			NS	Yes
H015			EL	Yes
H027			EL	Yes
H046			EL	Yes
H106				Yes
H107				Yes
H150			EL	Yes
HAPS				Yes
NOX			EL	Yes
PB			EL	Yes
PM	ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)		EL	Yes
PM10	ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)		NS	Yes
SO2			EL	Yes
VOC				Yes



## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

*No Pollutant Allowable Emissions information submitted.*

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

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

1. Pollutant Emitted: H015 - Arsenic Compounds (inorganic including arsine)	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour    tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor:  Reference:	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions:	

**11. Pollutant Potential, Fugitive, and Actual Emissions Comment:**

Limited to 5 ppm as specification of used oil.



**11. Pollutant Potential, Fugitive, and Actual Emissions Comment:**

Limited to 2 ppm as specification of used oil.



**11. Pollutant Potential, Fugitive, and Actual Emissions Comment:**

Limited to 10 ppm as specification of used oil.

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

*No Pollutant Allowable Emissions information submitted.*

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

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

1. Pollutant Emitted: H106 - Hydrogen chloride (Hydrochloric acid)	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour    tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor:  Reference:	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions:	

11. Pollutant Potential, Fugitive, and Actual Emissions Comment:

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

*No Pollutant Allowable Emissions information submitted.*

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS (Optional for unregulated emissions units.)

### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

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

1. Pollutant Emitted: H107 - Hydrogen fluoride (Hydrofluoric acid)	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour    tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor:  Reference:	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions:	

11. Pollutant Potential, Fugitive, and Actual Emissions Comment:

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

*No Pollutant Allowable Emissions information submitted.*

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS (Optional for unregulated emissions units.)

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

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

1. Pollutant Emitted: H150 - Polychlorinated biphenyls (Aroclors)	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour    tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor:  Reference:	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions:	

11. Pollutant Potential, Fugitive, and Actual Emissions Comment:

Limited to 50 ppm as specification of used oil.



**11. Pollutant Potential, Fugitive, and Actual Emissions Comment:**



**11. Pollutant Potential, Fugitive, and Actual Emissions Comment:**

Facility-wide NO<sub>x</sub> cap of 6,666 tpy; During the HERT demonstration project potential emissions will be reduced by approximately 30% to 844 lb/hr.

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: (OTHER) assumed by applicant for other reasons (Explain in comment field)	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: .62 POUNDS PER MILLION BTU HEAT INPUT	4. Equivalent Allowable Emissions: 1205.78 lb/hour 5281 tons/year
5. Method of Compliance: Annual average of CEM hourly data. (40 CFR Part 75)	
6. Allowable Emissions Comment (Description of Operating Method): Phase II NOx.	



## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

*No Pollutant Allowable Emissions information submitted.*

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

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

1. Pollutant Emitted: PM - Particulate Matter - Total	2. Total Percent Efficiency of Control: 98
3. Potential Emissions: 194.5 lb/hour 1065 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: .125 LB/MMBTU Reference: PERMIT	7. Emissions Method Code: (0) EQUAL TO EQUIVALENT ALLOWABLE EMISSION/WORST-CASE ALLOWABLE EMISSION.
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years

10. Calculation of Emissions:

$\text{lb/hr} = 1944.8 \text{ mmBtu/hr} * 0.1 \text{ lb/mmBtu} = 194.5 \text{ lb/hr}$ . TPY =  $1944.8 \text{ mmBtu/hr} * 0.125 \text{ lb/mmBtu} * 8760 \text{ hrs/yr} / * 1 \text{ ton}/2000 \text{ lb} = 1065 \text{ TPY}$

11. Pollutant Potential, Fugitive, and Actual Emissions Comment:

Emission factor based on 0.1 lb/MMBtu, 21 hours (steady- state); 0.3 lb/MMBtu, 3 hours (soot-blowing).

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

### **Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: .1 POUNDS PER MILLION BTU HEAT INPUT	4. Equivalent Allowable Emissions: 194.48 lb/hour 1065 tons/year
5. Method of Compliance: Test not required if operation < 400 hours/FFY.	
6. Allowable Emissions Comment (Description of Operating Method): During normal operations while firing coal.	

### **Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: .3 POUNDS PER MILLION BTU HEAT INPUT	4. Equivalent Allowable Emissions: 583.44 lb/hour 1065 tons/year
5. Method of Compliance: Test not required if operation < 400 hours/FFY.	
6. Allowable Emissions Comment (Description of Operating Method): During the 3 hrs in any 24 hrs period allowed for boiler cleaning(soot blowing) and load changing.	



## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

*No Pollutant Allowable Emissions information submitted.*

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

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

1. Pollutant Emitted: SO2 - Sulfur Dioxide	2. Total Percent Efficiency of Control:
3. Potential Emissions: 4084.08 lb/hour 17888 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 2.1 LB/MMBTU Reference: PERMIT	7. Emissions Method Code: (0) EQUAL TO EQUIVALENT ALLOWABLE EMISSION/WORST-CASE ALLOWABLE EMISSION.
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions:	

11. Pollutant Potential, Fugitive, and Actual Emissions Comment:

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: (OTHER) assumed by applicant for other reasons (Explain in comment field)	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 2.1 POUNDS PER MILLION BTU HEAT INPUT	4. Equivalent Allowable Emissions: 4084.08 lb/hour 17888 tons/year
5. Method of Compliance: Daily 24 hour average based on CEM or FS&A Program. See SC12.	
6. Allowable Emissions Comment (Description of Operating Method): Applicant request. 4.5 lbs/mmBtu for unit 1 and 2 combined.	



## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

*No Pollutant Allowable Emissions information submitted.*

## G. VISIBLE EMISSIONS INFORMATION

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

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: VE40 - VISIBLE EMISSIONS - 40% NORMAL OPACITY	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 40% Exceptional Conditions: % Maximum Period of Excess Opacity Allowed:      min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment: The Permittee elected to utilize a transmissometer (opacity meter) for demonstrating compliance with the visible emissions limit.	

**Visible Emissions Limitation:** Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: VE60 - VISIBLE EMISSIONS - 60% NORMAL OPACITY	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed:      min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

4. Method of Compliance:

5. Visible Emissions Comment:

During the 3-hrs in any 24 hr period allowed for boiler cleaning (soot blowing) and load change.  
Test not required if operation < 400 hours/FFY.

**H. CONTINUOUS MONITOR INFORMATION****Complete if this emissions unit is or would be subject to continuous monitoring.****Continuous Monitoring System:** Continuous Monitor 1 of 5

1. Parameter Code: CO2 - Carbon dioxide	2. Pollutant(s):
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: SIEMENS Model Number: Ultramat 5E Serial Number: DO-665	
5. Installation Date: 01-DEC-93	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Spectrum Systems Model 300 Dilution Monitoring System uses the Siemens CO2 analyzer to measure the diluent component of the SO2 and NOX emission rate. Unit is required to monitor CO2 under 2-296.405(	
Status: Active	

**Continuous Monitoring System:** Continuous Monitor 2 of 5

1. Parameter Code: EM - EMISSION	2. Pollutant(s): SO2
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: Spectrum Systems, In Model Number: 43H Serial Number: 43H-43678-269	
5. Installation Date: 01-DEC-93	6. Performance Specification Test Date: 01-JAN-94
7. Continuous Monitor Comment: Unit has elected to install and operate CEM for SO2 in lieu of monitoring emissions using fuel sampling and analysis under rule 62-296.405(1)(f)1. Additional requirements under 40CFR75.	
Status: Active	

**Continuous Monitoring System:** Continuous Monitor 3 of 5

1. Parameter Code: VE - Visible emissions (opacity)	2. Pollutant(s):
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: SPECTRUM SYSTEMS Model Number: SS4542 Serial Number: 931001/931003	
5. Installation Date: 01-DEC-93	6. Performance Specification Test Date: 01-JUN-93
7. Continuous Monitor Comment:	
Status: Active	

**Continuous Monitoring System:** Continuous Monitor 4 of 5

1. Parameter Code: EM - EMISSION	2. Pollutant(s): NOX
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: TECO Model Number: 42D Serial Number: 42D-40365-262	
5. Installation Date: 01-DEC-93	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Spectrum Systems Model 300 Dilution Monitoring System uses Siemens and Teco analyzers to calculate unit NOx emission rate. CEM required under Title IV 40 CFR Part 75.	
Status: Active	

**Continuous Monitoring System:** Continuous Monitor 5 of 5

1. Parameter Code: FLOW - Volumetric flow rate	2. Pollutant(s):
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: SIERRA Model Number: 650 Serial Number: SM-1A , SM-1B	
5. Installation Date: 01-DEC-93	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Spectrum Systems Model 300 Dilution Monitoring System uses heat input measurements from flow to calculate hourly emissions. CEM flow monitors are required under Title IV 40 CFR Part 75.	
Status: Active	

## I. EMISSIONS UNIT ADDITIONAL INFORMATION

### Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Applicable     Previously Submitted, Date: \_\_\_\_\_     Attachment

2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Applicable     Previously Submitted, Date: \_\_\_\_\_     Attachment

3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Applicable     Previously Submitted, Date: \_\_\_\_\_     Attachment

4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Applicable     Previously Submitted, Date: \_\_\_\_\_     Attachment

5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Applicable     Previously Submitted, Date: \_\_\_\_\_     Attachment

6. Compliance Demonstration Reports/Records

Applicable     Previously Submitted, Date: \_\_\_\_\_     Attachment

To Be Submitted, Date (if known): \_\_\_\_\_

Previously Submitted Test Date(s)/Pollutants Tested:

To be Submitted Test Date(s)/Pollutants Tested:

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Applicable                       Attachment

**Additional Requirements for Title V Air Operation Permit Applications**

<p>1. Identification of Applicable Requirements</p> <p><input checked="" type="checkbox"/> Applicable      <input checked="" type="checkbox"/> Attachment</p>
<p>2. Compliance Assurance Monitoring Plan</p> <p><input type="checkbox"/> Applicable      <input type="checkbox"/> Attachment</p>
<p>3. Alternative Methods of Operation</p> <p><input type="checkbox"/> Applicable      <input type="checkbox"/> Attachment</p>
<p>4. Alternative Modes of Operation (Emissions Trading)</p> <p><input type="checkbox"/> Applicable      <input type="checkbox"/> Attachment</p>
<p>5. Acid Rain Part Application</p> <p>Certificate of Representation (EPA Form No. 7610-1)</p> <p><input type="checkbox"/> Applicable      <input type="checkbox"/> Previously Submitted,      <input type="checkbox"/> Attachment Date:</p> <p>Acid Rain Part (Form No. 62-210.900(1)(a))</p> <p><input type="checkbox"/> Applicable      <input type="checkbox"/> Previously Submitted,      <input type="checkbox"/> Attachment Date:</p> <p>Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)</p> <p><input type="checkbox"/> Applicable      <input type="checkbox"/> Previously Submitted,      <input type="checkbox"/> Attachment Date:</p> <p>New Unit Exemption (Form No. 62-210.900(1)(a)2.)</p> <p><input type="checkbox"/> Applicable      <input type="checkbox"/> Previously Submitted,      <input type="checkbox"/> Attachment Date:</p> <p>Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)</p> <p><input type="checkbox"/> Applicable      <input type="checkbox"/> Previously Submitted,      <input type="checkbox"/> Attachment Date:</p> <p>Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)</p> <p><input type="checkbox"/> Applicable      <input type="checkbox"/> Previously Submitted,      <input type="checkbox"/> Attachment Date:</p> <p>Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)</p> <p><input type="checkbox"/> Applicable      <input type="checkbox"/> Previously Submitted,      <input type="checkbox"/> Attachment Date:</p>

**Additional Requirements for Air Construction Permit Applications**

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e))
<input type="checkbox"/> Applicable <input type="checkbox"/> Attachment
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.)
<input type="checkbox"/> Applicable <input type="checkbox"/> Attachment
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
<input type="checkbox"/> Applicable <input type="checkbox"/> Attachment

**Other Information Regarding this Emissions Unit**

1. Other Emissions Unit Information
<input checked="" type="checkbox"/> Applicable <input checked="" type="checkbox"/> Attachment
Note: Provide any other information related to the emissions unit addressed in this Emissions Unit Information Section that is not elsewhere provided in the application, not otherwise required and that you, the applicant, believe may be helpful.

**Additional Requirements Comment**

Attachments include information for the Unit 1 High Energy Reagent Technology (HERT) Project.
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**Emission Unit Attachments**

Supplemental Item	Electronic File Name	Attachment Description	Electronic Document	Date Uploaded
Other Emissions Unit Information	UreaMSDS.pdf	HERT-UREA MSDS Information.	Yes	06/04/2007
	Smith HERT Plan.pdf	Unit 1 SNCR-HERT Project Description.	Yes	06/07/2007
	HERT Skid.pdf	SNCR-HERT Skid Diagram.	Yes	06/04/2007
Identification of Applicable Requirements	DOCS-#262696-v2-Smith_-_Unit_001_-_FDEP.DOC	Updated Unit 1 applicable FDEP rule analysis.	Yes	06/04/2007
	DOCS-#262697-v1-Smith_-_Unit_001_-_EPA.DOC	Updated Unit 1 applicable EPA rule analysis.	Yes	06/04/2007

### III. EMISSIONS UNIT INFORMATION

#### A. GENERAL EMISSIONS UNIT INFORMATION

#### Title V Air Operation Permit Emissions Unit Classification

1. (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
- The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
- The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

#### Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)
- This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
- This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
- This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:

BOILER NUMBER 2 - 2,246.2 MMBTU/HOUR (PHASE II ACID RAIN)

3. Emissions Unit Identification Number: 2

4. Emissions Unit Status Code: <p style="text-align: center;">A</p>	5. Commence Construction Date:	6. Initial Startup Date: <p style="text-align: center;">08-APR-67</p>	7. Emissions Unit Major Group SIC Code: <p style="text-align: center;">49</p>	8. Acid Rain Unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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9. Package Unit Model Number:

Manufacturer:

10. Generator Nameplate Rating: 205 MW

11. Emissions Unit Comment:

Units -001 and -002 share a common stack

**Emissions Unit Control Equipment**

Code Equipment	Description
24 MODIFIED FURNACE/BURNER DESIGN	Low NOx burners manufactured by Foster Wheeler.
10 ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)	Hot Precipitator Buell Model #BAL 2X34N333-4-3P and Cold Precipitator General Electric Model #BE2.1X(2-12`S)(12)-30-111-4.3P
107 SELECTIVE NONCATALYTIC REDUCTION FOR NOX	The HERT Project is a demonstration of SNCR technology,
206 DRY SORBENT INJECTION	The MOBOTEK Project uses dry sorbent injection technology for mercury removal.





**D. SEGMENT (PROCESS/FUEL) INFORMATION****Segment Description and Rate:** Segment 1 of 3

1. Segment Description (Process/Fuel Type): Boiler fired with Pulverized Bituminous Coal. Emissions related to tons burned.		
2. Source Classification Code (SCC): 10100212		3. SCC Units: Tons Bituminous Coal Burned
4. Maximum Hourly Rate: 85.2	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 4.1	8. Maximum % Ash: 9.9	9. Million Btu per SCC Unit: 24
10. Segment Comment: Minimum MBTU per SCC unit is 23. Average MBTU is 24.		
Is this a valid segment? Yes		

**Segment Description and Rate:** Segment 2 of 3

1. Segment Description (Process/Fuel Type): Boiler fired with #2 fuel oil and "on spec." used oil. emissions related to thousand gallons burned.		
2. Source Classification Code (SCC): 10100501		3. SCC Units: 1000 Gallons Distillate Oil (No. 1 & 2) Burned
4. Maximum Hourly Rate: .55	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: .5	8. Maximum % Ash:	9. Million Btu per SCC Unit: 138
10. Segment Comment: Maximum percent ash in item 8 is 0.05 %.		
Is this a valid segment? Yes		

**Segment Description and Rate:** Segment 3 of 3

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC): 10101302	3. SCC Units: 1000 Gallons Waste Oil Burned	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 132
10. Segment Comment: Used oil specification: Arsenic 5 PPM, Cadmium 2 PPM, Chromium 10 PPM, Lead 100 PPM, Total Halogens 1000 PPM, PCB50 ppm.		
Is this a valid segment? Yes		

**E. EMISSIONS UNIT POLLUTANTS****List of Pollutants Emitted by Emissions Unit**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code	Valid?
CO			NS	Yes
H015			EL	Yes
H027			EL	Yes
H046			EL	Yes
H106				Yes
H107				Yes
H150			EL	Yes
HAPS				Yes
NOX			EL	Yes
PB			EL	Yes
PM	ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)		EL	Yes
PM10	ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)		NS	Yes
SO2			EL	Yes
VOC				Yes



## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

*No Pollutant Allowable Emissions information submitted.*

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS (Optional for unregulated emissions units.)

### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

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

1. Pollutant Emitted: H015 - Arsenic Compounds (inorganic including arsine)	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour    tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor:  Reference:	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions:	

**11. Pollutant Potential, Fugitive, and Actual Emissions Comment:**

Limited to 5 ppm as specification of used oil.

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

*No Pollutant Allowable Emissions information submitted.*

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS (Optional for unregulated emissions units.)

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

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

1. Pollutant Emitted: H027 - Cadmium Compounds	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour    tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor:  Reference:	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions:	

11. Pollutant Potential, Fugitive, and Actual Emissions Comment:

Limited to 2 ppm as specification of used oil.

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

*No Pollutant Allowable Emissions information submitted.*

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS (Optional for unregulated emissions units.)

### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

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

1. Pollutant Emitted: H046 - Chromium Compounds	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour    tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor:  Reference:	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions:	

11. Pollutant Potential, Fugitive, and Actual Emissions Comment:

Limited to 10 ppm as specification of used oil.



**11. Pollutant Potential, Fugitive, and Actual Emissions Comment:**

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

*No Pollutant Allowable Emissions information submitted.*

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS (Optional for unregulated emissions units.)

### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

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

1. Pollutant Emitted: H107 - Hydrogen fluoride (Hydrofluoric acid)	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour    tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor:  Reference:	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions:	

11. Pollutant Potential, Fugitive, and Actual Emissions Comment:

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

*No Pollutant Allowable Emissions information submitted.*

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

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

1. Pollutant Emitted: H150 - Polychlorinated biphenyls (Aroclors)	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour    tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor:  Reference:	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions:	

11. Pollutant Potential, Fugitive, and Actual Emissions Comment:

Limited to 50 ppm as specification of used oil



11. Pollutant Potential, Fugitive, and Actual Emissions Comment:

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

*No Pollutant Allowable Emissions information submitted.*

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS (Optional for unregulated emissions units.)

### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

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

1. Pollutant Emitted: NOX - Nitrogen Oxides	2. Total Percent Efficiency of Control:
3. Potential Emissions: 988.33 lb/hour 4329 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: .44 LB/MMBTU Reference: PERMIT	7. Emissions Method Code: (0) EQUAL TO EQUIVALENT ALLOWABLE EMISSION/WORST-CASE ALLOWABLE EMISSION.
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions:	

**11. Pollutant Potential, Fugitive, and Actual Emissions Comment:**

Facility-wide NO<sub>x</sub> cap. of 6,666 tpy; During the HERT demonstration potential NO<sub>x</sub> emissions will be reduced by approximately 30% to 692 lb/hr.

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: (OTHER) assumed by applicant for other reasons (Explain in comment field)	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: .44 POUNDS PER MILLION BTU HEAT INPUT	4. Equivalent Allowable Emissions: 988.33 lb/hour 4329 tons/year.
5. Method of Compliance: Annual Average of CEM hourly data.	
6. Allowable Emissions Comment (Description of Operating Method): Phase II NOx.	

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

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

1. Pollutant Emitted: PB - Lead - Total (elemental lead and lead compounds)	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour    tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor:  Reference:	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions:	
11. Pollutant Potential, Fugitive, and Actual Emissions Comment: Limited to 100 ppm as specification of used oil.	

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

*No Pollutant Allowable Emissions information submitted.*

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

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

1. Pollutant Emitted: PM - Particulate Matter - Total	2. Total Percent Efficiency of Control: 98
3. Potential Emissions: 224.6 lb/hour 1229.8 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: .125 LB/MMBTU Reference: PERMIT	7. Emissions Method Code: (0) EQUAL TO EQUIVALENT ALLOWABLE EMISSION/WORST-CASE ALLOWABLE EMISSION.
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years

**10. Calculation of Emissions:**

$\text{lb/hr} = 2246.2 \text{ mmBtu/hr} * 0.1 \text{ lb/mmBtu} = 224.6 \text{ lb/hr}$ .  $\text{TPY} = 2246.2 \text{ mmBtu/hr} * 0.125 \text{ lb/mmBtu}$   
 $* 8760 \text{ hrs/yr} * 1 \text{ ton}/2000 \text{ lb} = 1229.8 \text{ TPY}$

**11. Pollutant Potential, Fugitive, and Actual Emissions Comment:**

Emission factor based on 0.1 lb/MMBtu, 21 hours (steady- state); 0.3 lb/MMBtu, 3 hours (soot-blowing).

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: .3 POUNDS PER MILLION BTU HEAT INPUT	4. Equivalent Allowable Emissions: 673.86 lb/hour 1229.8 tons/year
5. Method of Compliance: Test not required if operation < 400 hours/FFY.	
6. Allowable Emissions Comment (Description of Operating Method): During the 3 hrs in any 24 hrs period allowed for boiler cleaning(soot blowing) and load changing.	

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: (RULE) required by rule specified in regulation	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: .1 POUNDS PER MILLION BTU HEAT INPUT	4. Equivalent Allowable Emissions: 224.62 lb/hour 1229.8 tons/year
5. Method of Compliance: Test not required if operation < 400 hours/FFY.	
6. Allowable Emissions Comment (Description of Operating Method): During normal operations while firing coal.	

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

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

1. Pollutant Emitted: PM10 - Particulate Matter - PM10	2. Total Percent Efficiency of Control: 98
3. Potential Emissions: 224.6 lb/hour 1229.8 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor:  Reference:	7. Emissions Method Code: (0) EQUAL TO EQUIVALENT ALLOWABLE EMISSION/WORST-CASE ALLOWABLE EMISSION.
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions:	
11. Pollutant Potential, Fugitive, and Actual Emissions Comment: Assumed to be the same as PM.	

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

*No Pollutant Allowable Emissions information submitted.*

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

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

1. Pollutant Emitted: SO2 - Sulfur Dioxide	2. Total Percent Efficiency of Control:
3. Potential Emissions: 6064.74 lb/hour 26564 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 2.7 LB/MMBTU Reference: PERMIT	7. Emissions Method Code: (0) EQUAL TO EQUIVALENT ALLOWABLE EMISSION/WORST-CASE ALLOWABLE EMISSION.
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions:	

11. Pollutant Potential, Fugitive, and Actual Emissions Comment:

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

**Allowable Emissions** Allowable Emissions 1 of 1

<p>1. Basis for Allowable Emissions Code: (OTHER) assumed by applicant for other reasons (Explain in comment field)</p>	<p>2. Future Effective Date of Allowable Emissions:</p>
<p>3. Allowable Emissions and Units: 2.7 POUNDS PER MILLION BTU HEAT INPUT</p>	<p>4. Equivalent Allowable Emissions: 6064.74 lb/hour 26564 tons/year</p>
<p>5. Method of Compliance: Daily 24 hour average based on CEM or FS&amp;A. See SC 12.</p>	
<p>6. Allowable Emissions Comment (Description of Operating Method): Applicant request. 4.5 lbs/mmBtu for unit 1 and 2 combined.</p>	

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

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

1. Pollutant Emitted: VOC - Volatile Organic Compounds	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour    tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor:  Reference:	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From:                      To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions:	
11. Pollutant Potential, Fugitive, and Actual Emissions Comment:	

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

*No Pollutant Allowable Emissions information submitted.*

## G. VISIBLE EMISSIONS INFORMATION

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

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: VE40 - VISIBLE EMISSIONS - 40% NORMAL OPACITY	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 40% Exceptional Conditions: % Maximum Period of Excess Opacity Allowed:      min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment: The Permittee elected to utilize a transmissometer (opacity meter) for demonstrating compliance with the visible emissions limit.	

**Visible Emissions Limitation:** Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: VE60 - VISIBLE EMISSIONS - 60% NORMAL OPACITY	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed:      min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

**4. Method of Compliance:**

**5. Visible Emissions Comment:**

During the 3-hrs in any 24 hr period allowed for boiler cleaning (soot blowing) and load change.  
Test not required if operation < 400 hours/FFY.

## H. CONTINUOUS MONITOR INFORMATION

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

**Continuous Monitoring System:** Continuous Monitor 1 of 5

1. Parameter Code: CO2 - Carbon dioxide	2. Pollutant(s):
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: SIEMENS Model Number: Ultramat 5E Serial Number: DO-663	
5. Installation Date: 01-DEC-93	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Spectrum Systems Model 300 Dilution Monitoring System uses the Siemens CO2 analyzer to measure the diluent component of the SO2 and NOX emission rate. Unit is required to monitor CO2 under 2-296.405(	
Status: Active	

**Continuous Monitoring System:** Continuous Monitor 2 of 5

1. Parameter Code: EM - EMISSION	2. Pollutant(s): SO2
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: TECO Model Number: 43H Serial Number: 43H-41459-265	
5. Installation Date: 01-DEC-93	6. Performance Specification Test Date: 01-JAN-94
7. Continuous Monitor Comment: Unit has elected to install and operate CEM for SO2 in lieu of monitoring emissions using fuel sampling and analysis under rule 62-296.405(1)(f)1. Specific conditions from existing permit is enclosed	
Status: Active	

**Continuous Monitoring System:** Continuous Monitor 3 of 5

1. Parameter Code: VE - Visible emissions (opacity)	2. Pollutant(s):
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: SPECTRUM Model Number: SS-4542 Serial Number: A1 931002	
5. Installation Date: 01-NOV-93	6. Performance Specification Test Date: 01-FEB-94
7. Continuous Monitor Comment:	
Status: Active	

**Continuous Monitoring System:** Continuous Monitor 4 of 5

1. Parameter Code: FLOW - Volumetric flow rate	2. Pollutant(s):
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: SIERRA Model Number: 650 Serial Number: SM-2A SM-2B	
5. Installation Date: 01-DEC-93	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Spectrum Systems Model 300 Dilution Monitoring System uses heat input measurements from flow to calculate hourly emissions. CEM flow monitors are required under Title IV 40 CFR Part 75.	
Status: Active	

**Continuous Monitoring System:** Continuous Monitor 5 of 5

1. Parameter Code: EM - EMISSION	2. Pollutant(s): NOX
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: TECO Model Number: 42D Serial Number: 42D-40402-262	
5. Installation Date: 01-DEC-93	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Spectrum Systems Model 300 Dilution Monitoring System uses Siemens and Teco analyzers to calculate unit NOx emission rate. CEM required under Title IV 40 CFR Part 75.	
Status: Active	

## I. EMISSIONS UNIT ADDITIONAL INFORMATION

### Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Applicable    <input type="checkbox"/> Previously Submitted, Date: _____    <input type="checkbox"/> Attachment</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Applicable    <input type="checkbox"/> Previously Submitted, Date: _____    <input type="checkbox"/> Attachment</p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Applicable    <input type="checkbox"/> Previously Submitted, Date: _____    <input type="checkbox"/> Attachment</p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Applicable    <input type="checkbox"/> Previously Submitted, Date: _____    <input type="checkbox"/> Attachment</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Applicable    <input type="checkbox"/> Previously Submitted, Date: _____    <input type="checkbox"/> Attachment</p>
<p>6. Compliance Demonstration Reports/Records</p> <p><input type="checkbox"/> Applicable    <input type="checkbox"/> Previously Submitted, Date: _____    <input type="checkbox"/> Attachment</p> <p style="padding-left: 40px;"><input type="checkbox"/> To Be Submitted, Date (if known): _____</p> <p>Previously Submitted Test Date(s)/Pollutants Tested: _____</p> <p>To be Submitted Test Date(s)/Pollutants Tested: _____</p> <p>Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.</p>
<p>7. Other Information Required by Rule or Statute</p> <p><input type="checkbox"/> Applicable                      <input type="checkbox"/> Attachment</p>

**Additional Requirements for Title V Air Operation Permit Applications**

1. Identification of Applicable Requirements

Applicable       Attachment

2. Compliance Assurance Monitoring Plan

Applicable       Attachment

3. Alternative Methods of Operation

Applicable       Attachment

4. Alternative Modes of Operation (Emissions Trading)

Applicable       Attachment

5. Acid Rain Part Application

Certificate of Representation (EPA Form No. 7610-1)

Applicable       Previously Submitted,       Attachment  
Date:

Acid Rain Part (Form No. 62-210.900(1)(a))

Applicable       Previously Submitted,       Attachment  
Date:

Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)

Applicable       Previously Submitted,       Attachment  
Date:

New Unit Exemption (Form No. 62-210.900(1)(a)2.)

Applicable       Previously Submitted,       Attachment  
Date:

Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

Applicable       Previously Submitted,       Attachment  
Date:

Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)

Applicable       Previously Submitted,       Attachment  
Date:

Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)

Applicable       Previously Submitted,       Attachment  
Date:

**Additional Requirements for Air Construction Permit Applications**

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e))

Applicable

Attachment

2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.)

Applicable

Attachment

3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)

Applicable

Attachment

**Other Information Regarding this Emissions Unit**

1. Other Emissions Unit Information

Applicable

Attachment

Note: Provide any other information related to the emissions unit addressed in this Emissions Unit Information Section that is not elsewhere provided in the application, not otherwise required and that you, the applicant, believe may be helpful.

**Additional Requirements Comment**

Attached files include project description for the Unit 2 SNCR-HERT and Mercury Sorbent Injection (MOBOTEC) projects.

**Emission Unit Attachments**

Supplemental Item	Electronic File Name	Attachment Description	Electronic Document	Date Uploaded
Other Emissions Unit Information	UreaMSDS.pdf	SNCR HERT Urea MSDS Information.	Yes	06/04/2007
	SorbentMSDS.pdf	MinPlus MSDS Information.	Yes	06/05/2007
	HERT Skid.pdf	Unit 2 SNCR-HERT Skid diagram.	Yes	06/04/2007
	SmPM.pdf	Unit 2 MOBOTEK Project Emissions Calculation.	Yes	06/07/2007
	Smith MOBOTEK Plan.pdf	Unit 2 MOBOTEK Project Description.	Yes	06/07/2007
	Smith HERT Plan.pdf	Unit 2 SNCR-HERT Project Description.	Yes	06/07/2007
Identification of Applicable Requirements	DOCS-#262698-v1-Smith_-_Unit_002_-_FDEP.DOC	Updated Unit 2 applicable FDEP rule analysis.	Yes	06/04/2007
	DOCS-#262699-v1-Smith_-_Unit_002_-_EPA.DOC	Updated Unit 2 applicable EPA rule analysis.	Yes	06/04/2007