

**RECEIVED**

JUN 6 1996

BUREAU OF  
AIR REGULATION

# Operating Permit Application for the Indiantown Cogeneration Plant

May, 1996

*Prepared For:*

Indiantown Cogeneration Company, L.P.  
P.O. Box 1799  
19140 SW Warfield Blvd.  
Indiantown, FL 34956

*Prepared By:*

EARTH TECH  
196 Baker Avenue  
Concord, MA 01742

file original

# Indiantown Cogeneration, L.P.

May 24, 1996

Mr. Scott Shleplak  
Air Regulation  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blairstone Road  
Tallahassee, FL 32399-2400]

**RECEIVED**  
JUN 6 1996  
BUREAU OF  
AIR REGULATION

**RE: Indiantown Generating Plant  
Title V Air Operating Permit  
Facility ID No. 0850102**

Dear Mr. Sheplak

Indiantown Cogeneration, L.P. (ICL) as required by the Clean Air Act Title V, is submitting the required documentation and application to obtain an operating permit for the Facility located at 19140 S.W. Warfield Blvd. Indiantown, Florida.

Enclosed please find the following:

1. One hard copy of the application and required documentation,
2. Four diskettes containing copies of the ELSA application forms,
3. Four signed originals of the Owner/Authorized Representative Statement, and
4. Four signed and stamped originals of the Professional Engineers Certification.

Please contact Byron Veech or me at (407) 597-6500 if you have any questions regarding this application.

Sincerely,



Stephen A. Sorrentino  
Plant Director

SS/bwv



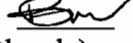
Enclosure



May 23, 1996  
Page Two

cc: Clair Fancy, FDEP w/o enclosure  
Hamilton S. Oven, Jr., FDEP, w/o enclosure  
Project File: 6.3.1.10 w/o att.  
File: 5.4bw/o att. ,16.1b (original controled copy)

May 23, 1996  
Page Two

bc: J. Roberson   
D. Bullock   
B. Veech   
C. Allen (Bethesda)  
D. Beckham (Bethesda)  
Michelle Golden-Griffin (Bethesda)  
B. Clipper (Bechtel)

**RECEIVED**

**JUN 6 1996**

**BUREAU OF  
AIR REGULATION**

# **Operating Permit Application for the Indiantown Cogeneration Plant**

May, 1996

*Prepared For:*

Indiantown Cogeneration Company, L.P.  
P.O. Box 1799  
19140 SW Warfield Blvd.  
Indiantown, FL 34956

*Prepared By:*

EARTH TECH  
196 Baker Avenue  
Concord, MA 01742

## TABLE OF CONTENTS

---

	<b>Page</b>
<b>1. INTRODUCTION</b>	<b>1-1</b>
<b>2. FACILITY DESCRIPTION</b>	<b>2-1</b>
2.1 Power Generation Equipment	2-1
2.2 Ancillary Equipment	2-1
<b>3. OVERVIEW OF REGULATORY REQUIREMENTS</b>	<b>3-1</b>
3.1 Florida Regulatory Requirements - 62-210.300 (Air Construction Permit/Air Operating Permit)	3-1
3.2 Florida Regulatory Requirements - 62-213.400 (Title V Operating Permit)	3-2
3.3 RACT Requirements	3-3
3.4 Acid Rain - Title IV of CAAA	3-3
3.5 Enhanced Monitoring Requirements	3-3
3.6 Accidental Release Prevention Program	3-4
3.7 Federal New Source Performance Standards (NSPS)	3-4
<b>4. EMISSION INVENTORY</b>	<b>4-1</b>
4.1 Inventory of Emissions	4-1
4.1.1 PC Boiler	4-2
4.1.1.1 PTE Based on Permit Limits	4-2
4.1.1.2 PTE Based on Emission Factors	4-2
4.1.1.3 PTE Based on Mass Balance	4-3
4.1.2 Aux Boilers	4-4
4.1.2.1 Aux Boilers PTE Based on Permit Limits	4-4
4.1.2.2 Aux Boilers PTE Based on Emission Factors	4-5
4.1.4 Material Handling Equipment	4-6
4.1.5 Ancillary Equipment Emissions	4-14
4.2 Emissions Points	4-14
4.3 Emissions Limitations or Other Requirements	4-14
4.4 Fuels and Raw Materials Used	4-15
4.5 Air Pollution Control Equipment	4-15
4.6 Trivial or Proposed Exempt Activities	4-15
4.6.1 Specifically Trivial Activities	4-15
4.6.2 Emissions From Proposed Exempt Activities	4-16
4.6.3 Non-point Fugitive Emissions	4-18
<b>5. DESCRIPTION OF OPERATING SCENARIOS</b>	<b>5-1</b>
5.1 Operating Scenarios for PC Boiler	5-1
5.1.1 Fuels	5-1
5.1.2 Operating Loads/Start up and Shut down	5-2
5.1.3 Operational Options	5-3

5.2 Auxiliary Boiler	5-3
5.2.1 Operating Hours	5-3
5.3 Other Permitted Activities	5-4
5.3.1 Truck Delivery of Materials	5-4
5.3.2 General Dust Handling Practices	5-4
5.4 Insignificant Activities	5-5
<b>6. MONITORING AND RECORD KEEPING AND REPORTING REQUIREMENTS</b>	<b>6-1</b>

**Appendices:**

**APPENDIX A - STATE OF FLORIDA DEP APPLICATION FOR AIR PERMIT - LONG FORM**

**APPENDIX B - SUPPORT CALCULATIONS FOR INSIGNIFICANT ACTIVITY  
AND MATERIAL HANDLING EMISSIONS**

**APPENDIX C - STATE OF FLORIDA PSD PERMIT/PERMIT TO CONSTRUCT**

**APPENDIX D - ATTACHMENTS TO APPLICATION FORMS**

**LIST OF TABLES**

---

	<b>Page</b>
<b>TABLE 3-1 COMMENTS REGARDING TITLE V CORE LIST</b>	<b>3-1</b>
<b>TABLE 3-2 NSPS APPLICABILITY TO INDIANTOWN EMISSION UNITS</b>	<b>3-5</b>
<b>TABLE 4-1 PC BOILER EMISSIONS BASED ON PERMIT LIMITS</b>	<b>4-7</b>
<b>TABLE 4-2 PC BOILER EMISSIONS BASED ON PUBLISHED EMISSION FACTORS</b>	<b>4-8</b>
<b>TABLE 4-3 PC BOILER EMISSIONS RATES BASED ON MASS BALANCE OVER TRACE CHLORINE IN COAL</b>	<b>4-10</b>
<b>TABLE 4-4 AUXILIARY BOILER EMISSION RATES BASED ON PERMIT LIMITS</b>	<b>4-11</b>
<b>TABLE 4-5 MATERIAL HANDLING SYSTEM EMISSION RATES BASED ON ALLOWABLE LOADING</b>	<b>4-13</b>
<b>TABLE 4-6 PROPOSED EXEMPT ACTIVITIES PER 62-210.300(3)</b>	<b>4-16</b>
<b>TABLE 4-7: PROPOSED EXEMPT ACTIVITIES PER 62-213.430(6)</b>	<b>4-17</b>



## 1. INTRODUCTION

---

Title V of the Clean Air Act Amendments of 1990 (CAAA) requires all major sources to file an operating permit application. The operating permit incorporates all applicable state and federal requirements under the Clean Air Act (the "Act") affecting the respective sources. A major source is defined as a source that has either the potential to emit 100 tons per year of any regulated air pollutant within an area that is in attainment for that pollutant; the potential to emit 10 tons per year of any one of the 189 hazardous air pollutants (HAPs); or the potential to emit 25 tons per year total HAPs. The Indiantown Cogeneration Plant in Indiantown, FL, is a major source for Oxides of Nitrogen (NO<sub>x</sub>), Volatile Organic Compounds (VOC), Sulfur Dioxide (SO<sub>2</sub>), Carbon Monoxide (CO), Total Suspended Particulate (TSP), Particulate Matter smaller than 10 microns (PM-10), Hydrochloric Acid (HCl, a HAP), and total HAPs (due to HCl).

Therefore, Indiantown Cogeneration Company, L.P. is applying to the Florida Department of Environmental Protection (the "Department") for an operating permit under provisions of the Department's operating permit program at F.A.C. 62-213.400. EARTH TECH has been contracted by Indiantown Cogeneration Company, L.P. to prepare this operating permit application for the Indiantown Cogeneration Plant (the "Facility").

This application is divided into six sections and four appendices. A Facility description is found in Section 2, and the applicable federal and state requirements for each emissions unit are presented in Section 3. The emissions inventories are described in Section 4, including emissions generating activities which will be designated as exempt or insignificant. The Facility's operating scenarios are discussed in Section 5. All monitoring, record keeping, and reporting requirements are discussed in Section 6. The completed State of Florida Department of Environmental Protection Application for Air Permit - Long Form is provided in Appendix A of this application. Appendix B provides supporting documentation for the calculations used in this application. Appendix C contains a copy of the State of Florida PSD Permit/Permit to Construct. Appendix D contains the specific attachments required by the DEP Application for Air Permit - Long Form. The application forms provided in Appendix A are also being provided electronically through the Electronic Submission of Application (ELSA) database.

Pursuant to F.A.C. 62-213.460, Indiantown Cogeneration Company, L.P. requests a permit shield for the Indiantown Cogeneration Plant. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance.

## **2. FACILITY DESCRIPTION**

---

### **2.1 Power Generation Equipment**

The Indiantown Cogeneration Plant is a cogeneration facility which generates electricity for sale and exports steam to the Caulkins Citrus Processing Plant. The Facility includes the following principal combustion equipment:

- One high pressure pulverized coal boiler (PC boiler) firing pulverized coal. The PC boiler is rated at 3,422 MMBtu/hr heat input, and has a nominal net electrical output of approximately 330 megawatts (MW). The PC boiler fires natural gas or propane (and is permitted to fire No. 2 fuel oil) for startup, shutdown, and load changes.
- Two auxiliary boilers (Aux boilers) for supplying steam to the steam host during times when the PC boiler is offline, as well as during PC boiler start up and shut down periods. The Aux boilers fire natural gas or propane, with a combined total rated heat input of 358 MMBtu/hr (and are permitted to fire No. 2 fuel oil). Steam produced by the Aux boilers is not used to generate any electricity.

### **2.2 Ancillary Equipment**

The facility includes a wide variety of ancillary equipment required to support operations as a coal-fired cogeneration facility. This equipment includes the following items:

- One emergency diesel fire pump, fired with No. 2 distillate oil.
- Coal unloading, crushing, transport, and storage equipment.
- Lime storage and preparation equipment.
- Ash handling and storage equipment.
- Water treatment system.
- Wet mechanical draft cooling tower.
- Propane storage tanks and propane vaporizer.
- Various other storage tanks.
- Miscellaneous other minor equipment/activities generating small amounts of emissions.

All ancillary equipment and support activities at the facility fall into one of three categories with respect to the operating permit application:

- Trivial activities pursuant to Division of Air Resources Management (DARM) memo DARM-PER/V-15, Att. A. No information on emissions is required for these activities. These activities include such activities as office equipment, interior/exterior non-process related maintenance, bathroom ventilation, etc. Activities which have no potential for emitting any air contaminant are also considered trivial activities. Trivial activities are discussed in Section 4.6.1.
- Proposed exempt activities pursuant to 62-210.300 (3) or 62.213.430 (6). These include non-trivial activities with some quantifiable potential for generating air contaminants. In order to qualify as an exempt activity, the activity must not be subject to any applicable air regulatory requirements, and must not be an activity above any applicable threshold listed in 62-210.300 (3) or 62.213.430 (6). Insignificant activities are discussed in Section 4.6.2.
- Significant activities. These include all emission generating activities not otherwise trivial or exempt. These include all activities currently addressed in the State of Florida PSD Permit/Permit to Construct, and are the principal subject of this application.

### 3. OVERVIEW OF REGULATORY REQUIREMENTS

This section provides an overview of the major regulatory requirements governing the content of this application as well as the major regulatory requirements to which the facility is subject. The State of Florida PSD Permit/Permit to Construct is included in Appendix C, and is the primary source of air quality regulatory requirements for the facility.

In order to simplify the list of applicable regulations, the Department issued the *Title V Core List*, effective 3/25/96. This is a list of rules to which the Department believes each Title V source is likely to be subject. The Facility is referencing the *Title V Core List* with the following comments, listed in Table 3-1.

**Table 3-1: Comments regarding Title V Core List**

Regulation	Comment
40 CFR 61	The Facility has no activities regulated under the NESHAP regulations
40 CFR 61, Subpart M	The Facility has no activities regulated under the National Emission Standard for Asbestos
40 CFR 82, Subpart B	The Facility does not service Motor Vehicle Air Conditioners
62-256	The Facility does not conduct Open Burning and Frost Protection
62-257	The Facility has no Asbestos Notification requirements
62-281	The Facility does not service Motor Vehicle Air Conditioners

#### 3.1 Florida Regulatory Requirements - 62-210.300 (Air Construction Permit/Air Operating Permit)

The Florida regulations include requirements for preconstruction review of various sources of air contaminants. These regulations include review of "major" sources, including the Federal PSD requirements (62-212.600), as well as State of Florida preconstruction review of air contaminant sources (62-212.300).

Pursuant to these requirements, the Facility was issued a Permit to Construct and PSD Permit (PSD Permit/Permit to Construct), dated March 26, 1992, with revisions dated July 16, 1992 (PSD-FL-168). Further revisions to the PSD Permit/Permit to Construct are pending as of the submittal date of this Title V Operating Permit Application. These pending revisions as requested (concerning SO<sub>2</sub> removal

efficiency alternative monitoring requirements) have been incorporated into this Title V application.

The PSD Permit/Permit to Construct is the principal source of applicable air regulatory requirements for the Facility, as documented in Appendix C. The Facility is also subject to the Florida Power Plan Siting Board Order Approving Site Certification (issued 2/7/92, Division of Administrative Hearings Case No. 90-8072EPP, Department of Environmental Regulation Case No. 90-31). This approval includes Conditions of Certification, including conditions relating to air. The conditions follow those listed in the PSD Permit/Permit to Construct. The PSD Permit/Permit to Construct is considered to be the reference document for applicable air regulatory requirements for purposes of this Title V application, and the Siting Board Approval Conditions of Certification will not be addressed further.

Similarly, the Facility has been issued a Martin County Planning & Zoning Board Approval of Planned United Development (PUD) Zoning Agreement, issued 7/24/91. This agreement includes special conditions (Exhibit "F"), including a section on air emissions (Paragraph A). This section is based on the PSD Permit/Permit to Construct, and the PSD Permit/Permit to Construct is considered to be the reference document for applicable air regulatory requirements for purposes of this Title V application. Other sections of the PUD Zoning Agreement are not considered applicable requirements relating to air quality. The PUD Zoning Agreement will not be addressed further.

Instead of issuing a final Florida Air Operating Permit, the Department has automatically extended the expiration date of the air construction permit pursuant to 62-213.420(1)(a)(4) until November 1, 1996. The Facility is submitting this Title V Permit Application instead of an application for an Air Operating Permit.

The Title V Operating Permit regulations and process are based on federal requirements of the Clean Air Act Amendments of 1990. The Title V Operating Permit Application and process essentially replaces the State of Florida Air Operating Permit process. Indiantown Cogeneration Company, L.P. requests that actions/approvals/conditions granted subsequent to the filing date of this Title V Operating Permit Application pursuant to the state preconstruction review process be incorporated by reference as applicable requirements in the Title V process.

### **3.2 Florida Regulatory Requirements - 62-213.400 (Title V Operating Permit)**

Final Florida Title V operating permit regulations are codified under 62-213.400 *et seq.* Florida regulation 62-213.420(3)(c) requires listing emissions of all regulated pollutants which the applicant knows or has reason to believe are being emitted from a source, so long as minimum thresholds are exceeded. Other requirements under 62-213.420(3) include identifying information, a description of a source's processes

and products, process and operating information, calculations, identification of all applicable requirements and test methods, control equipment information, limitations on source operation affecting emissions, proposed alternate methods of operation, a compliance statement, compliance schedule and methodology (if applicable), reporting and recordkeeping requirements, and a list of insignificant units or activities.

The completed Application for Air Permit - Long Form in Appendix A of this application provides the information required by 62-213.400 *et. seq.* These application forms are being provided both in hardcopy and in electronic format, through the ELSA database. Source and emission unit information not specifically required by the forms but required by 62-213.400 *et. seq.*, such as backup calculations, are provided in the appropriate sections of this application.

### 3.3 RACT Requirements

Martin County is in attainment with the National Ambient Air Quality Standards (NAAQS) for ozone, and is not designated as an air quality maintenance area. Because of this, the regulations under 62-296.500, Reasonably Available Control Technology (RACT) Volatile Organic Compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) Emitting Facilities, do not apply to the Facility.

### 3.4 Acid Rain - Title IV of CAAA

Pursuant to Title IV of the CAAA of 1990 and EPA's implementing regulations regarding acid rain requirements (40 CFR Part 72), the Facility does not have any "affected" units. The PC boiler is exempt from Title IV acid rain requirements because the Facility is a qualifying cogeneration facility that had as of 11/15/90 a qualifying power purchase agreement for at least 15% of the total output capacity. This specific exemption is per 40 CFR 72.6(b)(5).

### 3.5 Enhanced Monitoring Requirements

On October 22, 1993, EPA proposed draft regulations implementing the Enhanced Monitoring Program under 40 CFR 64 to fulfill the requirements in Title VII (Enforcement) of the Clean Air Act Amendments of 1990. The Enhanced Monitoring Program was designed to require an owner/operator of a source to conduct monitoring in order to determine continuous compliance with emission limitations or standards. The basic goal of the enhanced monitoring program is to ensure sources remain in compliance with the applicable emission limitations and standards set forth in the Act. Final regulations for Enhanced Monitoring were expected to be promulgated in early 1995, but have recently been withdrawn by EPA for major modification. It is anticipated that EPA may promulgate regulations for a Compliance Assurance Monitoring Program (CAMP) in lieu of "enhanced

monitoring." The enhanced monitoring plan will be incorporated as a separate attachment to the operating permit application, when and if the rule becomes final.

### 3.6 Accidental Release Prevention Program

Title III of the Clean Air Act Amendments of 1990 greatly expanded the National Emission Standards for Hazardous Air Pollutants (NESHAPS) program. Section 112(r) of the Act established a program for Accidental Release Prevention which will require affected facilities to take preventive action to avoid accidental releases of toxic or flammable chemicals. Facilities will be required to prevent, detect, and respond to accidental releases through the preparation and implementation of risk management plans and hazard assessments. On October 20, 1993 EPA proposed regulations implementing the program. EPA had previously published a final list of substances regulated under the accidental release program. Aqueous ammonia (concentration greater than 20%) is the only substance stored at the Facility which is regulated under the program. Therefore, the Facility is subject to the Accidental Release program requirements for this substance. Regulations for development of risk management programs have not yet been promulgated. Pending promulgation of final rules under this program, the Facility will undertake all required compliance actions.

### 3.7 Federal New Source Performance Standards (NSPS)

The EPA Regulations on Standards of Performance for New Stationary Sources (40 CFR 60) regulate specific categories of emission units. The PC boiler is subject to 40 CFR Part 60 Subpart Da, "Standards of Performance for Fossil-Fuel Fired Steam Generators." The Aux Boilers are subject to 40 CFR Part 60 Subpart Db, "Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units." The coal handling equipment is subject to 40 CFR Part 60 Subpart Y "Standards of Performance for Coal Preparation Plants." The lime handling equipment is not subject to 40 CFR 60, Subpart OOO "Standards of Performance for Nonmetallic Mineral Processing Plants," because no crushing operations take place.

The NSPS requirements are listed in the application forms (Appendix A). The following table shows the applicability thresholds of the particular NSPS and the appropriate parameters for the Indiantown Cogeneration Plant.

**Table 3-2: NSPS Applicability to Indiantown Cogeneration Plant Emission Units**

NSPS	Pollutant	Applicability Threshold	Facility Parameter	Applicable?
Subpart Da	Particulate Matter, SO <sub>2</sub> , NO <sub>x</sub>	Electric utility steam-generating units ≥ 250 MMBtu/hr heat input	PC Boiler - 3,422 MMBtu/hr	Yes
Subpart Db	Particulate Matter, SO <sub>2</sub> , NO <sub>x</sub>	Steam generating units between 100-250 MMBtu/hr	Aux Boilers - 179 MMBtu/hr each	Yes
Subpart Y	Particulate Matter	Coal processing and conveying equipment (including breakers and crushers), coal storage systems, and coal transfer and loading systems processing >200 tons per day	Coal crushers, conveyors, silos processing ~1100 tons per hour.	Yes
Subpart OOO	Particulate Matter	Each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station at crushed stone plants >25 tons/hour	Lime is delivered in powdered form. Facility is not a crushed stone plant.	No

Regarding 40 CFR 60 Subpart Db, the auxiliary boilers are subject to NO<sub>x</sub> emission limits and related requirements under the current firing configuration of natural gas and propane. These auxiliary boilers are also permitted to fire very low sulfur transportation distillate oil (No. 2 fuel oil), but do not fire No. 2 fuel oil at the current time. Should distillate oil firing be undertaken in the future, the auxiliary boilers would become subject to opacity limits and related performance testing and monitoring requirements, as well as recordkeeping for documentation of the use of very low sulfur oil. The Facility will comply with these requirements once they become applicable.

While the auxiliary boilers also have limitations on capacity factor, these capacity factors are not used or intended for use as a strategy for compliance with 40 CFR 60 Subpart Db. Thus, references in Subpart Db to capacity restriction related requirements are not cited or considered as applicable requirements for these units.



## 4. EMISSION INVENTORY

---

The operating permit application forms include estimates of emissions for significant sources. Also, calculations must be shown where necessary to document the emissions from a proposed exempt source. This section discusses the calculation methods for the emission rates for each significant and insignificant emission unit.

### 4.1 Inventory of Emissions

In accordance with the requirements of 62-213.420, this section provides the inventory of emissions for the Indiantown Cogeneration Plant. Where appropriate, this section also identifies proposed exempt activities.

The form instructions, *Instructions for DEP Form No. 62-210.900(1) Application for Air Permit - Long Form*, indicate that the Facility should supply the maximum potential to emit (PTE) for the following types of pollutants:

- Pollutants with PTE's greater than major source thresholds;
- Pollutants synthetically limited below major source thresholds; and
- Pollutants subject to emissions limitations or work practice standards at the facility.

For each individual emissions unit, pollutants must be listed if there is a numerical emissions limitation, or if the PTE is greater than:

- 5.0 tons per year for CO, NO<sub>x</sub>, PM, PM-10, SO<sub>2</sub>, and VOC;
- 500 pounds per year for Pb and Pb compounds expressed as lead;
- 1,000 pounds per year for each HAP, provided the facility is major for such HAP;
- 2,500 pounds per year for HAPs (total HAPs, all species), provided the facility is major for HAPs.

This application includes the maximum PTE for each pollutant for each source, based on the available data. The emissions are only included in the forms in Appendix A if required. For pollutants not specifically limited by permit or regulation, we do not consider the emission estimates included in this application to be regulatory limits. Since the CAAA greatly expanded the list of regulated pollutants, and the availability of emission factor information is expanding, the Facility is requesting that the factors supplied with this application for

pollutants/sources with no applicable requirements not be considered as fixed regulatory limits.

For sources that have specific regulatory limits on pollutant emissions, the annual PTE for those pollutants is calculated based on the applicable permit limits. For sources and/or pollutants without regulatory limits, emission rates are estimated based on available data, as described below. If emission factors are revised, or additional data becomes available, the new estimated potential or actual emissions could be higher than the PTE listed in this application.

The actual emissions for the facility have not been requested by the Department as part of the operating permit application requirements. Actual emissions are reported annually through the Annual Operating Report.

Emissions and support information are summarized in tabular form with the basis for estimation explained in the text as necessary. Emissions are reported in tons per year (tpy).

The application instructions specify a *de minimis* threshold below which potential emissions of pollutants do not have to be reported, as discussed above. Emissions estimates have been calculated for all pollutants for which applicable data could be found; the PTEs were then compared to the thresholds in the application instructions. If the PTE for a pollutant is less than the threshold, the emission rates for that pollutant are not listed in the application forms. This comparison is shown in Tables 4-2 and 4-3.

#### *4.1.1 PC Boiler*

##### *4.1.1.1 PTE Based on Permit Limits*

The PC boiler has annual permit limits in tons per year for the pollutants designated below. The maximum PTE for each of these pollutants is the annual emission limit as specified in the PSD Permit/Permit to Construct. The PTE values are summarized in Table 4-1.

##### *4.1.1.2 PTE Based on Emission Factors*

Appropriate emission factors were found by searching the most recent EPA database *Factor Information Retrieval System* (FIRE), version 5.1 (November 1995). A search for factors for utility boiler firing bituminous coal was performed.

All the applicable emission factors found in FIRE have ratings of E (on a scale of A-E) or U (unrateable). This means that the factors are based on insufficient or poor quality data. The introduction to AP-42 (Compilation of Air Pollutant Emission Factors, EPA, January 1995) states that "a factor based on a single observation of

questionable quality, or one extrapolated from another factor for a similar process, would probably be labeled D or E." Since the published emission factors may be inaccurate, and the factors are for facilities whose operations may not be representative of the Indiantown Cogeneration Plant, the results of the calculations using these factors have a significant degree of uncertainty. While the factors used are probably conservative for a state-of-the-art facility such as the Indiantown Cogeneration Plant, we do not believe that these factors provide a firm foundation for tons-per-year regulatory limits.

Most of the published emission factors are based on uncontrolled emissions. Control efficiencies for individual pollutants are estimated where appropriate, as shown in Table 4-2.

Most of the emission factors used are in units of pounds of pollutant per million or billion Btu burned. For these pollutants, the annual PTE is calculated by multiplying the pounds per million (or billion) Btu factor times the Btu per hour fuel combustion limits times 8,760 hours per year, and adjusting the units to tons of pollutant per year. Results are shown in Table 4-2. Since, facility-wide, none of the pollutants exceed the thresholds as described in Section 4.1 (the facility is major for none of the pollutants), these estimated emissions are not included in the application forms in Appendix A.

The EPA FIRE database contains an emission factor for radionuclide emissions from coal-fired utility boilers. This factor is in units of picocuries of U-238 per gram of particulate matter emitted. Emissions of radionuclides are estimated in picocuries and shown in Table 4-2. There is no direct conversion to pounds of HAP; however, we have calculated the grams of radionuclides emitted based on the weight and radioactivity of U-238. Based on this calculation, the Facility emits much less than the *de minimis* threshold of 1,000 pounds per year, per the form instructions. Emissions of radionuclides are therefore not listed on the Florida operating permit application forms.

#### 4.1.1.3 PTE Based on Mass Balance

For estimated emissions of hydrogen chloride (HCl), a mass balance was used. Grab samples of the coal were taken in February, 1996 and analyzed for chlorine. A total annual coal use was estimated by multiplying the allowable heat input rate (3,422 MMBtu/hour, 8,760 hour/year) times the design specification coal heat value (11,800 Btu/lb), which results in an estimated 1,270,200 tons of coal per year at maximum firing rate. The average weight fraction of chlorine in the coal, times the annual coal use, was used to find the amount of chlorine element entering the system.

It is conservatively assumed that all the chlorine enters the flue gas as hydrogen chloride (HCl). Based on HCl removal efficiencies at other facilities with SO<sub>2</sub> removal systems, an HCl removal efficiency of 97% across the spray dryer absorber was assumed. The PTE for HCl is the amount of HCl entering the flue gas, minus the amount collected by the spray dryer absorber. The calculated emissions are shown in Table 4-3. The Facility is a major source of HCl, and the HCl forms are included in the application forms in Appendix A.

For those trace metal pollutants for which no permit limit exists and no emission factor was found, emissions are estimated based on a mass balance. The calculation involves estimating the total amount of an element entering the PC Boiler in the coal, estimating what percentage is emitted from the PC Boiler, and estimating the efficiency of the emission control system in collecting that pollutant.

A typical trace element analysis for bituminous coal from the North Appalachia region was used in the mass balance calculation. A total annual coal use was estimated as discussed above. The weight fraction of each element in the coal, times the annual coal use, was used to find the amount of each trace element entering the system.

It is conservatively assumed that all the trace elements enter the flue gas. A collection efficiency across the fabric filter is assumed for each element. The assumptions are based on the relative volatility of each element, and estimated control efficiencies. The PTE for each element is the amount of the element entering the system, minus the amount collected by the fabric filter. Since none of the pollutants exceed the thresholds as described in Section 4.1 (the facility is major for none of the pollutants), these estimated emissions are not included in the application forms in Appendix A.

#### *4.1.2 Aux Boilers*

The Aux Boilers are subject to limits in the PSD Permit/Permit to Construct. These limits have been interpreted as discussed in Section 5.2.1. The total potential emissions for the Aux Boilers are determined by summing the allowable emissions while burning fuel oil (for the time allowed) with the estimated potential emissions while burning propane or natural gas (for the time allowed). It should be noted that while the Aux Boilers are permitted to fire oil, they do not currently do so and oil burners are not currently installed.

##### *4.1.2.1 Aux Boilers PTE Based on Permit Limits*

Since the boilers are permitted to fire No. 2 oil, the PTE calculations include oil firing (although oil is not currently fired). The tons per year emissions from oil firing are calculated by taking the lb/hr limits (for both boilers full load) times the

1,000 hours/year oil firing limit. To reach this limit, the facility could fire one boiler 500 hours and the other boiler 1,500 hours, or vice versa.

For NO<sub>x</sub>, the Aux Boilers are limited by the federal NSPS Subpart Db to 0.20 lb NO<sub>x</sub>/MMBtu fired, regardless of which fuel is used. This limit is approximately equivalent to the limit specified in the PSD Permit/Permit to Construct. The maximum PTE for NO<sub>x</sub> is calculated based on firing the boiler for the combined total maximum firing rate of 1,790,000 MMBtu/yr (as discussed in Section 5.2.1)

#### 4.1.2.2 *Aux Boilers PTE Based on Emission Factors*

The permit allows up to 5,000 hours of operation, as discussed in Section 5.2.1. Having used up the oil firing hours, the potential emissions are calculated based on 4,000 additional hours firing natural gas or propane at full load. This hourly limit is converted to a million Btu/year limit. Using the Facility specification for natural gas, and the EPA AP-42 heat content for propane, the MMBtu/hr limit is converted into million cubic feet/hour and thousand gallons/hour. EPA emission factors are then used for all pollutants except NO<sub>x</sub> to calculate tons-per-year emissions from natural gas and propane firing. The total potential-to-emit is the highest potential emissions from firing any of the fuels in any allowable combination. Results are shown in Table 4-4.

Emission factors were found by searching the most recent EPA database *Factor Information Retrieval System (FIRE)*, version 5.1 (November 1995). A search for factors for boilers firing propane or natural gas was performed. When FIRE provided different emission factors based on boiler firing type, "industrial" was chosen where available. For propane, the emission factors in FIRE appear to be higher than those listed in Table 1.5.1 in AP-42 (Compilation of Air Pollutant Emission Factors, EPA, January 1995).

The only emission factor for HAPs found was for mercury emissions from natural gas combustion; this factor has a rating of E (on a scale of A-E). This means that the factor is based on insufficient or poor quality data. The introduction to AP-42 states that "a factor based on a single observation of questionable quality, or one extrapolated from another factor for a similar process, would probably be labeled D or E." Since the published emission factor may be inaccurate, and the factors are for facilities that operate differently from the Indiantown Cogeneration Plant, the results of the calculations using this factor have a significant degree of uncertainty. Although FIRE does not contain emission factors for other HAPs emitted from natural gas or propane combustion, small amounts of other HAPs may be generated.

#### *4.1.4 Material Handling Equipment*

The facility has several material handling transfer or emission points that are described in existing Florida PSD Permit/Permit to Construct application. Stack emissions of particulate matter from these pieces of equipment are limited to 0.01 grains per actual cubic feet airflow per Special Condition 11 (compliance based on visible emission readings). The PTE is calculated by multiplying the rated airflow of each stack emission point times the grain loading above, and adjusting the units to tons of pollutant per year. It is conservatively assumed that all the particulate matter is emitted as PM-10. Calculations are shown in Table 4-5.

In addition, there are several material handling activities that can generate fugitive emissions. The Department forms do not require a numerical estimate of the potential emissions from each of these sources, but instead request indication of a range of emissions. For each of the material handling activities listed in the application forms, the fugitive emissions of particulate (TSP and PM-10) are estimated to be less than 5 times the reporting threshold (that is, less than 25 tons per year). Backup calculations are included in Appendix B.

Table 4-1  
PC Boiler Emission Rates Based on Permit Limits

Indiantown Cogeneration Plant		
PC Boiler Permitted Emission Rates		
Pollutant	Emission Limitation	
	lb/hr	TPY
SO2	582	2549
NOx	582	2549
PM	61.6	270
PM10	61.6	270
CO	376	1649
VOC	12.32	54
H2SO4	1.45	6.51
Be	0.0094	0.041
Hg	0.039	0.17
Pb	0.034	0.15
F	5.08	22.3
As	0.18	0.77
From Permit PSD-FL-168		







Table 4-3  
PC Boiler Emission Rates Based on Mass Balance over Trace Chlorine in Coal

Chlorine Emission calculations			
Coal Use:			
1,270,200	ton/yr max		
290,000	lb/hr max		
Chlorine concentrations			
2/8/96	0.12%		
2/12/96	0.13%		
2/13/96	0.12%		
2/15/96	0.11%		
Average:		0.12%	
Maximum from Spec:		0.15%	(Per worst case specification coal, Att. 10)
Mol. Wt. Cl:		35.5	<i>Assume all chlorine exits the boiler as HCl</i>
Mol. Wt. HCl:		36.5	
lb/hr HCl out boiler:		447	(lb/hr coal times weight fraction Cl)
ton/yr HCl out boiler:		1,959	
Estimated SDA			
Control Efficiency:		95%	
lb/hr HCl after control:		22.4	
ton/yr HCl after control:		97.9	
<i>Therefore, the facility is a major source of HCl.</i>			
Note: Calculated emissions should not be considered permit limits			

Table 4-4  
 Auxiliary Boiler Emission Rates Based on Permit Limits and Emission Factors  
 (Page 1 of 2)

Auxiliary Boilers: Maximum allowable hours/year firing oil:		1,000	hours/ year/ boiler total
<b>Maximum Permitted Emissions Both Boilers Firing 2 Oil</b>		contribution from	
Pollutant	lb/hr limit	fuel oil firing	
		ton/year	
NOx	68	34	
SO2	18	9	
PM	1.4	0.7	
PM10	1.4	0.7	
CO	48	24	
VOC	0.62	0.31	
Be	4.00E-05	0.00002	
Hg	5.20E-04	0.00026	
Pb	0.036	0.018	
As	0.0068	0.0034	
Assuming maximum oil firing, allowable hours remaining to fire natural gas or propane at max rate:		4,000	hours/ year/ boiler total
Maximum firing rate:		358	MMBtu/hr
		1,432,000	MMBtu/yr
Heat content of natural gas:		950	MMBtu/MMCF
Heat content of propane:		90.5	MMBtu/1000 gal
Maximum natural gas firing rate:		0.38	MMCF/hr
		1,507	MMCF/yr
Maximum propane firing rate:		3.96	1000 gal/hr
		15,823	1000 gal/yr
Without any oil firing, allowable hours to fire natural gas or propane at max rate:		5,000	hours/ year/ boiler total
Maximum firing rate:		358	MMBtu/hr
		1,790,000	MMBtu/yr
Heat content of natural gas:		950	MMBtu/MMCF
Heat content of propane:		90.5	MMBtu/1000 gal
Maximum natural gas firing rate:		0.38	MMCF/hr
		1,884	MMCF/yr
Maximum propane firing rate:		3.96	1000 gal/hr
		19,779	1000 gal/yr

Table 4-4  
 Auxiliary Boiler Emission Rates Based on Permit Limits and Emission Factors  
 (Page 2 of 2)

Emission Factors				OIL FIRING CASE	NO OIL CASE
Natural gas		Calculated Emissions		contribution from	contribution from
		Large industrial boilers, nat. gas		natural gas firing	natural gas firing
		Pollutant	lb/MMCF	ton/year	ton/year
NSPS Subpart Db Limit:	NOx	190	(0.2 lb/MMBtu)	143.200	179.000
FIRE 5.1 Emission factor:	SO2	0.6		0.452	0.565
FIRE 5.1 Emission factor:	PM	3	(AFSEF)	2.261	2.826
FIRE 5.1 Emission factor:	PM10	3	(AFSEF)	2.261	2.826
FIRE 5.1 Emission factor:	CO	48		36.177	45.221
FIRE 5.1 Emission factor:	VOC	1.4	(AFSEF)	1.055	1.319
(no data)	Be				
FIRE 5.1 Emission factor:	Hg	1.08E-02		0.008	0.010
(no data)	Pb				
(no data)	As				
Propane:				OIL FIRING CASE	NO OIL CASE
		FIRE Emission Factors		contribution from	contribution from
		Large industrial boilers, propane		propane firing	propane firing
		Pollutant	lb/1000gal	ton/year	ton/year
NSPS Subpart Db Limit:	NOx	18.1	(0.2 lb/MMBtu)	143.200	179.000
FIRE 5.1 Emission factor:	SO2	1		7.912	9.890
FIRE 5.1 Emission factor:	PM	6		47.470	59.337
FIRE 5.1 Emission factor:	PM10	2.6		20.570	25.713
FIRE 5.1 Emission factor:	CO	3.2		25.317	31.646
FIRE 5.1 Emission factor:	VOC	2.5		19.779	24.724
(no data)	Be				
(no data)	Hg				
(no data)	Pb				
(no data)	As				
<i>Note: FIRE emission factors appear to be higher than similar AP-42 factors</i>					
Oil Firing Case		No Oil Case		Overall Maximum Potential	
Total Emissions		Total Emissions		Total Emissions	
Pollutant	tons/year	Pollutant	tons/year	Pollutant	tons/year
NOx	177.20	NOx	179.00	NOx	179.00
SO2	16.91	SO2	9.89	SO2	16.91
PM	48.17	PM	59.34	PM	59.34
PM10	21.27	PM10	25.71	PM10	25.71
CO	60.18	CO	45.22	CO	60.18
VOC	20.09	VOC	24.72	VOC	24.72
Be	2.00E-05	Be	-	Be	2.00E-05
Hg	8.40E-03	Hg	1.02E-02	Hg	1.02E-02
Pb	1.80E-02	Pb	-	Pb	1.80E-02
As	3.40E-03	As	-	As	3.40E-03
Total of the oil firing plus the max of gas or propane firing		Total of the max of gas or propane firing		Maximum of oil firing or no oil case	

Table 4-5  
Material Handling System Emission Rates Based on Allowable Loading

Coal Handling System							
Maximum Potential Emissions							
Point Sources							
Emission Point		Filter Designation	Rated Airflow	Maximum loading	Maximum Emissions		
			ACFM	gr/ACF	lb/hr	tpy	
System 1	Unload Bldg	JK-H-10	8600	0.010	0.74	3.23	
System 2	Storage Area	JK-H-27	6600	0.010	0.57	2.48	
System 3	Crusher	JK-H-41	15000	0.010	1.29	5.63	
System 4	Top of Silo	JK-H-50	10000	0.010	0.86	3.75	
Fugitive Emissions					Sum of point sources:	3.46	15.09
coal pile							
coal railcar unloading							
coal emergency stackout							
magnetic separator drop							
drop onto pile in building							
road dust emissions in coal handling area							
Ash Handling System							
Maximum Potential Emissions							
Point Sources							
Emission Point		Filter Designation	Rated Airflow	Maximum loading	Maximum Emissions		
			ACFM	gr/ACF	lb/hr	tpy	
Ash Storage	Silo	Silo Vent Filter	13607	0.010	1.17	5.11	
Fugitive Emissions							
Bottom Ash Handling							
Road dust emissions in ash handling area							
Lime Handling System							
Maximum Potential Emissions							
Point Sources							
Emission Point		Filter Designation	Rated Airflow	Maximum loading	Maximum Emissions		
			ACFM	gr/ACF	lb/hr	tpy	
Lime Storage	Silo	Silo Vent Filter	1200	0.010	0.10	0.45	
Fugitive Emissions							
Road dust emissions in lime handling area							

#### 4.1.5 *Ancillary Equipment Emissions*

In addition to the combustion units, emissions estimates were derived for other potential sources of emissions, including the following: vents, storage tanks, chemical handling, degreasers, cleaning solvents, and miscellaneous equipment. None of these potential sources of emissions are subject to any applicable requirements. These sources are either "trivial" or are "proposed exempt" activities. For those that are "trivial" per state guidance (DARM-PER/V-15), no emissions data need be provided in the permit. These include routine welding operations, machine shop maintenance activities (such as grinding), architectural coatings, and grounds maintenance. For other potential emissions generating activities, such as the lube oil vents or oil storage tanks, estimates of emissions are provided in Appendix B. The inventory of proposed exempt activities and calculation of emissions for these activities are discussed in Section 4.6.

### 4.2 **Emissions Points**

Emissions from the PC boiler exhaust through the main facility stack. The two Aux Boilers exhaust through a common stack. Other pieces of equipment exhaust through smaller stacks, vents, and openings facility-wide. The Operating Permit Application Forms - Long Form in Appendix A of this application contain descriptive information on the respective stacks, including height, stack gas temperature and gas exit velocity for each of these sources.

### 4.3 **Emissions Limitations or Other Requirements**

Relevant state and federal regulations were reviewed, along with the PSD Permit/Permit to Construct, to determine applicable requirements for each emissions unit. Florida regulatory requirements pertaining to emissions limitations or air pollution controls are federally enforceable if incorporated in the State Implementation Plan (SIP). Further, any terms or conditions for monitoring or emissions testing associated with the PSD Permit/Permit to Construct are considered federally enforceable.

In addition to the emissions limits, other permit or general regulatory requirements apply to the Facility for equipment/instrumentation (CEMS, fuel meters); inspection, maintenance, and testing; visible emissions/opacity; record keeping and reporting; and operation of the control equipment.

The state and federal requirements applicable to the Indiantown Cogeneration Plant are listed in Sections II B and III D of the application forms in Appendix A, and in related attachments in Appendix D.

#### 4.4 Fuels and Raw Materials Used

The PC boiler uses coal as its primary fuel. Natural gas or propane is used for start ups and shut downs, in-process upset conditions, and to stabilize combustion during load changes. While the PC boiler is permitted to fire No. 2 oil as well, it does not currently fire oil. The PSD permit limits total heat input to the PC boiler to 3,422 MMBtu fired per hour.

The Aux Boilers fire natural gas or propane. While the Aux boilers are permitted to fire No. 2 oil as well, they do not currently fire oil. The PSD permit limits the use of the Aux Boilers, as discussed in Section 5.2.

The emergency fire pump diesel fires No. 2 fuel oil. There is no permit restriction on fuel use in the fire pump, however total operation is proposed to be limited to 400 hours per calendar year under Florida requirements for permit exemption per 62-210.300 (3).

Other materials are used at the Facility as appropriate. Ammonia is injected into the PC Boiler prior to the SCR system for NO<sub>x</sub> reduction. Lime is injected in a water slurry into the SDA system for SO<sub>2</sub> control. Water treatment chemicals, including lime, soda ash, caustic, acids, and other chemicals, are used as appropriate for boiler water, wastewater, and cooling water treatment. Lubricating oils, cleaning compounds, and other materials are also used plant-wide where appropriate.

#### 4.5 Air Pollution Control Equipment

The PC boiler is equipped with Low-NO<sub>x</sub> Burners, Overfire Air, a Selective Catalytic Reduction (SCR) system, a Spray Dryer Absorber (SDA) system, and a fabric filtration baghouse. The SCR system uses ammonia as a reducing agent in the presence of oxygen over a catalyst to convert the NO<sub>x</sub> into nitrogen and water. The SDA system uses a lime slurry to convert the SO<sub>2</sub> into calcium sulfite and calcium sulfate. The fabric filtration baghouse removes particulate matter from the flue gas.

#### 4.6 Trivial or Proposed Exempt Activities

##### 4.6.1 Specifically Trivial Activities

According to the February 12, 1996 guidance memo DARM-PER/V-15 certain activities are exempt from the requirements of the operating permit program. Specific, relevant activities identified under the guidance as "trivial" include the following:

- Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP

- Demineralized water tanks & demineralizer vents
- Combustion emissions from propulsion of mobile sources
- Steam vents and safety relief valves
- Steam leaks
- Plant maintenance and upkeep activities
- Repair or maintenance shop activities
- Vents from CEMS and other analyzers
- Bathroom and kitchen vents
- General building ventilation
- Consumer use of office equipment and products
- Bench-scale laboratory equipment used for physical or chemical analysis, but not lab hoods or vents

No information or emissions data is required in the application for these sources. Any of these "trivial" activities, or other "trivial" activities listed in DARM-PER/V-15, may be conducted at the Facility without additional authorization.

#### 4.6.2 Emissions From Proposed Exempt Activities

As allowed by 62-213.420(3)(m) and 62-213.430(6), the Facility is proposing several exempt activities.

Activities that are proposed as exempt per 62-213.420(3)(m) are listed as exempt from permitting per 62-210.300(3). Emission calculations need not be performed for these activities. These activities are listed in Table 4-6.

**Table 4-6: Proposed Exempt Activities per 62-210.300(3)**

ACTIVITY	REASON FOR EXEMPTION
Diesel Fire Pump	(t) Emergency general purpose diesel engines, operating no more than 400 hours per year
Portable Space Heaters	(l) Equipment used exclusively for space heating, other than boilers.
Parts Washer	(x) Degreasing units using heavier-than-air vapors exclusively, except any such unit using HAP.





the road surface. These emissions are estimated using the EPA AP-42 emissions calculation method (7/94 revision, Section 13.2.4). Calculations are shown in Appendix B. This emission generating activity is included in the application forms as part of the fugitive emissions from the coal, ash, and lime handling systems.

Wind erosion can cause particulate emissions from the inactive coal storage pile. Coal handling can also cause dust emissions from the inactive coal storage pile. These emissions are estimated using AP-42; calculations are shown in Appendix B. This emission generating activity is included in the application forms as part of the fugitive emissions from the coal handling system.

The handling of dry materials can cause minor amounts of fugitive dust emissions plant-wide. These emissions are estimated based on the maximum expected coal, ash, lime, and other dry material handling on the site. A generalized AP-42 material handling calculation was used (per 7/94, 13.2.2), which conservatively estimated outdoor material handling. This emission generating activity is included in the application forms as part of the fugitive emissions from the coal, ash, and lime handling systems, and as proposed exempt activities, as appropriate.

## 5. DESCRIPTION OF OPERATING SCENARIOS

---

This section describes the present operating scenarios for the combustion units at the Facility. Unless specified otherwise all conditions stated are part of normal operation.

Operating scenarios for the PC Boiler are described in Section 5.1. Section 5.2 reviews operating scenarios for the Aux Boilers. Operating scenarios for other permitted activities are discussed in Section 5.3. Operating scenarios for exempt activities are discussed in Subsection 5.4.

### 5.1 Operating Scenarios for PC Boiler

#### 5.1.1 Fuels

The PC Boiler is permitted to fire pulverized coal, No. 2 fuel oil, natural gas, and propane. There is no limit to the quantity of each fuel fired, or the order in which they are fired. One or more fuels may be fired simultaneously.

Coal may include any solid fuel classified as coal by American Society for Testing and Materials in ASTM D388-77, "Standard Specification for Classification of Coals by Rank." Use of any source of coal shall not be considered as a modification or change in the method of operation.

No. 2 fuel oil may include any product meeting ASTM specifications as No. 2 fuel oil or better and also meeting any other applicable requirements including Department regulatory requirements and the Facility PSD Permit/Permit to Construct. The Facility may add industrial biocide(s) to its fuel oil tanks to control biological growth. Use of any source of fuel oil as specified herein shall not be considered as a modification or change in the method of operation. The PC Boiler does not currently fire No. 2 fuel oil.

Natural gas may include any material meeting the definition of natural gas in 40 CFR 60 Subpart Db. Natural gas is defined in 40 CFR 60.41b as "(1) a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or (2) liquid petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835-82."

Propane may include any product meeting ASTM specifications as propane and also meeting any other applicable requirements including Department regulatory requirements and the Facility Plan Approval. Use of any source of propane as specified herein shall not be considered as a modification or change in the method of operation.

### *5.1.2 Operating Loads/Start up and Shut down*

#### *Normal Operating Loads*

The PC Boiler may operate at any operating load from 0 - 100% rating (0 - 3,422 MMBtu/hr). Condition 3 of the PSD Permit states that "the maximum heat input to the PC Boiler shall not exceed 3,422 MMBtu/hr while firing coal." The Facility will maintain the heat input from coal fired in the boiler to less than 3,422 MMBtu/hr on a 24-hour block average basis. This heat input limit will not include the contribution from natural gas or propane, which are used to stabilize the flame at high load.

Normal operation is baseload conditions (full load) with pulverized coal. The PC Boiler is fully dispatchable under the terms of the Power Sales Agreement and Florida Power and Light (FPL) demand will determine what the normal operational load is over time.

#### *Start up*

Special Condition 13 of the PSD permit states that "no coal may be fired until all air pollution control equipment is in operation." To implement this requirement, the Facility does not fire coal until all air pollution control equipment is in an operative condition, based on routine start up checks. The SCR system has flue gas temperature permissives before the ammonia reagent is injected. These flue gas temperature permissives cannot normally be reached unless some coal is fired. The reagent injection begins once the applicable temperature permissives are reached as necessary to control emissions. Similarly, the SDA and the fabric filter baghouse begin operation once the temperature is adequate to ensure proper operation.

On December 27, 1995, Byron Veech of Indiantown Cogeneration sent a letter to Terry Hilliard of the Florida Department of Environmental Protection documenting a December 13, 1995 phone conversation regarding Special Condition 13 of the PSD permit. In that phone conversation, it was agreed that the NO<sub>x</sub> removal system is made up of three distinct components: low NO<sub>x</sub> burners, overfire air and Selective Catalytic Reduction. It was also agreed that the loss of any one of these components does not prohibit the combustion of coal in the boiler, provided the plant is able, and does take appropriate operational actions, to maintain compliance.

The Florida regulations codified in 62-210.700 provide for exceptions to emission limits in certain specific instances. These instances include start up, shut down, malfunction, boiler cleaning, and load change. The Facility will comply with these regulations, and will use these regulations as a basis for identifying periods of excess emissions that are not counted as permit violations. In all cases, best operational practices to minimize emissions will be adhered to and the duration of excess

emissions will be minimized. In the case of excess emissions resulting from malfunctions, the Facility will notify the Department as required by 62-210.700(6).

#### *Shut down*

As with start up, the facility will comply with the Florida regulations codified in 62-210.700. Excess emissions that take place during shut down periods are documented as such and are not counted as permit violations. Likewise, excess emissions that take place during malfunctions are documented as such and are not counted as permit violations. In the case of excess emissions resulting from malfunctions, the Facility will notify the Department of the incident.

#### *5.1.3 Operational Options*

So long as the emission limits and specific conditions of the PSD Permit/Permit to Construct are met, and federal and state requirements are met, the facility has the option to adjust the operation of the PC boiler. Such adjustments could include: water injection into the boiler, and the use of anhydrous ammonia instead of aqueous ammonia in the SCR system.

## **5.2 Auxiliary Boiler**

The Aux Boilers may operate at any operating load from 0-100% rating (0-358 MMBtu/hr total).

The Aux Boilers are permitted to fire No. 2 fuel oil, natural gas, or propane, which may include any product meeting ASTM specifications as defined in Section 5.1.1 above. The Aux Boilers do not currently fire No. 2 fuel oil.

The Florida regulations codified in 62-210.700 and discussed under 5.1.2 above also apply to the Aux Boilers. Excess emissions that take place during start up or shut down periods are documented as such and are not counted as permit violations. Likewise, excess emissions that take place during malfunctions are documented as such and are not counted as permit violations. In the case of excess emissions resulting from malfunctions, the Facility will notify the Department of the incident.

#### *5.2.1 Operating Hours*

The PSD Permit/Permit to Construct was originally written based on one 358 MMBtu/hr Aux Boiler, and was subsequently revised to allow for two smaller boilers. The permit restrictions on operating hours and on oil use for the two-boiler case is clarified as described below.

Condition 9 of the PSD Permit/Permit to Construct states "The auxiliary boiler or boilers, rated at up to a combined total of up to 358 MMBtu/hr (Natural gas and

propane) and 342 MMBtu/hr (No. 2 fuel oil), shall be limited to a maximum of 5,000 hours/year at the combined total heat input rates with up to 1,000 hrs/yr firing No. 2 fuel oil with 0.05% sulfur, by weight, and the balance firing natural gas or propane.”

Firing 5,000 hours/year at the combined total heat input rates would allow a total firing of  $1.79 \times 10^{12}$  Btu per year, based on firing natural gas or propane.

Condition 9 of the PSD Permit/Permit to Construct has been interpreted to limit the heat input to both Aux Boilers to a combined total of less than  $1.79 \times 10^{12}$  Btu per year<sup>†</sup>. Compliance with this restriction will be calculated by multiplying the amount of each fuel consumed by the average heat content of the fuel. Compliance will be based on a calendar year basis. The fuel may be fired in either boiler.

The Aux Boilers do not currently fire No. 2 fuel oil. When No. 2 fuel oil firing commences, the facility will limit the hours firing oil to a total of 1,000 hours per boiler per year. A log of the time oil is fired in either boiler will be kept. Compliance will be based on a calendar year basis. The hours firing No. 2 fuel oil may occur using either boiler.

### 5.3 Other Permitted Activities

In general, other permitted activities will be operated within constraints established by applicable regulatory requirements and equipment design as a part of normal operation. Raw materials used in these systems may include any material satisfying the design specifications of the equipment and any applicable ASTM specifications, also as part of normal operation. Specific operating scenarios for selected permitted activities are described below.

#### 5.3.1 *Truck Delivery of Materials*

Normal operation of the facility involves delivery of coal by railcar, the removal of ash by railcar or truck, and the delivery of lime by truck. The facility may choose to change deliveries such that materials are delivered or removed by truck or railcar, as convenient.

#### 5.3.2 *General Dust Handling Practices*

Condition 10 of the PSD Permit/Permit to Construct specifies dust handling practices. The Facility will apply water sprays or chemical wetting agents and stabilizers to uncovered storage piles, roads, handling equipment, etc., during dry

---

<sup>†</sup> The Auxiliary boilers are each permitted to run 5000 full load equivalent hours per calendar year, with no more than 1000 hours of that period using fuel oil as the primary fuel.

periods and as necessary to all facilities to maintain compliance with the permit conditions.

#### **5.4 Insignificant Activities**

The evaluation of insignificant activities presented in Appendix B is based on typical operations and chemicals used at the Facility. The Facility may modify these operations and types of chemicals used within the basis for proposal as insignificant activities as part of normal operations.

## 6. MONITORING AND RECORD KEEPING AND REPORTING REQUIREMENTS

---

The Facility has reviewed monitoring, recordkeeping, and reporting requirements in order to assess compliance with each applicable air regulatory requirement. This information was used in order to provide assurance to the Responsible Official certifying the application that the Facility is in compliance with each applicable air regulatory requirement. The results of the regulatory review are not included in this application; the results will be retained by the Facility updated as necessary to provide a continued assurance of regulatory compliance for future certifications.

The state and federal requirements applicable to the Indiantown Cogeneration Plant are listed in Sections II B and III D of the application forms in Appendix A. Based on our current understanding of the Department's guidance, methods of compliance are not listed in the forms.



**Appendix A**

---

**State of Florida DEP Application for Air Permit - Long Form**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DIVISION OF AIR RESOURCES MANAGEMENT  
APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Identification of Facility Addressed in This Application

Indiantown Cogeneration, L.P.

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official :

Name : Stephen Sorrentino  
Title : Plant Director

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

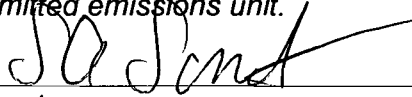
Organization/Firm : Indiantown Cogeneration, L.P.  
Street Address : P.O. Box 1620  
City : Indiantown  
State : FL                      Zip Code : 34956-

3. Owner/Authorized Representative or Responsible Official Telephone Numbers :

Telephone : (407)597-6500                      Fax : (407)597-6520

4. Owner/Authorized Representative or Responsible Official Statement :

*I, the undersigned, am the owner or authorized representative\* of the facility (non-Title V source) addressed in this Application for Air Permit or the responsible official, as defined in Chapter 62-213, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. Further, I agree to operate and maintain the air pollutant emissions units and air pollution control equipment described in this application so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. If the purpose of this application is to obtain an air operation permit or operation permit revision for one or more emissions units which have undergone construction or modification, I 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. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.*

  
\_\_\_\_\_  
Signature

6-3-96  
\_\_\_\_\_  
Date

\* Attach letter of authorization if not currently on file.

**Scope of Application**

<b>Emissions Unit ID</b>	<b>Description of Emissions Unit</b>
001	Pulverized Coal Fired Main Boiler
003	(2) Auxiliary Boilers
004	Coal Handling System
005	Ash Handling System
006	Lime Handling System

**Purpose of Application and Category**

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

This Application for Air Permit is submitted to obtain :

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

Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number :

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

Operation permit to be renewed :

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

Current construction permit number :

Operation permit to be revised :

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

Operation permit to be revised/corrected :

Air operation permit revision for a Title V source for reasons other than construction or modification of an emissions unit.

Operation permit to be revised :

Reason for revision :

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

This Application for Air Permit is submitted to obtain :

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

Current operation/construction permit number(s) :

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

Operation permit to be renewed :

- Air operation permit revision for a synthetic non-Title V source.

Operation permit to be revised :

Reason for revision :

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

This Application for Air Permit is submitted to obtain :

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

Current operation permit number(s), if any :

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

Current operation permit number(s) :

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

**Application Processing Fee**

Attached - Amount : \_\_\_\_\_ NA

**Construction/Modification Information**

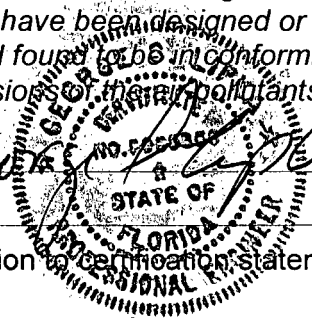
1. Description of Proposed Project or Alterations :
2. Projected or Actual Date of Commencement of Construction :
3. Projected Date of Completion of Construction :



**Professional Engineer Certification**

1. Professional Engineer Name : George S. Lipka Registration Number : 0050359
2. Professional Engineer Mailing Address : Organization/Firm : EARTH TECH Street Address : 196 Baker Avenue City : Concord State : M Zip Code : 01720-
3. Professional Engineer Telephone Numbers : Telephone : (508)371-4000 Fax : (508)371-2468
4. Professional Engineer Statement : <i>I, the undersigned, hereby certified, except as particularly noted herein*, that :</i> <i>(1) To the best of my knowledge, there is reasonable assurance (a) that the air pollutant emissions unit(s) and the air pollutant 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 in the Florida Statutes and rules of the Department of Environmental Protection; or (b) for any application for a TitleV source air operation permit, that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in the application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application;</i> <i>(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; and</i> <i>(3) For any application for an air construction permit for one or more proposed new or modified emissions units, 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.</i> Signature <u><i>George S. Lipka</i></u> Date <u><i>May 16, 1996</i></u>

\* Attach any exception to certification statement.



**Application Contact**

1. Name and Title of Application Contact :  Name : Byron Veech Title : Environmental, H&S Coordinator
2. Application Contact Mailing Address :  Organization/Firm : Indiantown Cogeneration, L.P. Street Address : P.O. Box 1620 City : Indiantown State : FL                      Zip Code : 34956-
3. Application Contact Telephone Numbers :  Telephone : (407)597-6500                      Fax : (407)597-6520

**Application Comment**

Alternate Contacts: Andrew Jablonowski, EARTH TECH 508-371-4000  
Michelle Golden-Griffin, US Generating 301-718-6973

*978-371-4539*



**Facility Contact**

1. Name and Title of Facility Contact :

Name : Byron Veech  
Title : Environmental, H&S Coordinator

2. Facility Contact Mailing Address :

Organization/Firm : Indiantown Cogeneration, L.P.  
Street Address : P.O. Box 1620  
City : Indiantown  
State : FL                      Zip Code : 34956-\_\_\_\_

3. Facility Contact Telephone Numbers :

Telephone : (407)597-6500                      Fax : (407)597-6520

**Facility Regulatory Classifications**

1. Small Business Stationary Source?	N
2. Title V Source?	Y
3. Synthetic Non-Title V Source?	N
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	Y
5. Synthetic Minor Source of Pollutants Other than HAPs?	N
6. Major Source of Hazardous Air Pollutants (HAPs)?	Y ✓
7. Synthetic Minor Source of HAPs?	N
8. One or More Emissions Units Subject to NSPS?	Y
9. One or More Emission Units Subject to NESHAP?	N
10. Title V Source by EPA Designation?	Y
11. Facility Regulatory Classifications Comment :	
Major source of HAPs based on current estimates of HCl emissions.	

**B. FACILITY REGULATIONS**

**Rule Applicability Analysis**

--

## B. FACILITY REGULATIONS

### List of Applicable Regulations

62-210.300  
62-210.350  
62-210.370  
62-210.500  
62-210.550  
62-210.700 / 62-212.300  
62-212.400 (PSD-FL-168)  
62-212.410  
62-212.500  
62-213  
62-273.300  
62-297

Facility wide applicable regulations on system, do not print due to ELSA error.  
FLDEP is mailing a correction disk  
Submitting without hardcopy is acceptable.

II. Part 4b - 1

### C. FACILITY POLLUTANT INFORMATION

**Facility Pollutant Information**

Pollutant 1

1. Pollutant Emitted :	PM
2. Estimated Emissions :	0.0000 (tons/year)
3. Requested Emissions Cap :	(lbs/hour) (tons/year)
4. Basis for Emissions Cap Code :	
5. Facility Pollutant Comment :	All pollutants accounted for under individual emission units. Any facility-wide emissions are attributed to an individual emissions unit.



### C. FACILITY POLLUTANT INFORMATION

**Facility Pollutant Information**

Pollutant 2

1. Pollutant Emitted :	PM10
2. Estimated Emissions :	0.0000 (tons/year)
3. Requested Emissions Cap :	(lbs/hour) (tons/year)
4. Basis for Emissions Cap Code :	
5. Facility Pollutant Comment :	All pollutants accounted for under individual emission units. Any facility-wide emissions are attributed to an individual emissions unit.

## D. FACILITY SUPPLEMENTAL INFORMATION

### Supplemental Requirements for All Applications

1. Area Map Showing Facility Location :	02
2. Facility Plot Plan :	03
3. Process Flow Diagram(s) :	09,14,19,21,23
4. Precautions to Prevent Emissions of Unconfined Particulate Matter :	04
5. Fugitive Emissions Identification :	NA
6. Supplemental Information for Construction Permit Application :	NA

### Additional Supplemental Requirements for Category I Applications Only

7. List of Insignificant Activities :	05
8. List of Equipment/Activities Regulated under Title VI :	06
9. Alternative Methods of Operation :	NA
10. Alternative Modes of Operation (Emissions Trading) :	NA
11. Enhanced Monitoring Plan :	NA
12. Risk Management Plan Verification :	Plan Submit
13. Compliance Report and Plan :	07
14. Compliance Statement (Hard-copy Required) :	08

### III. EMISSIONS UNIT INFORMATION

#### A. GENERAL EMISSIONS UNIT INFORMATION

**Emissions Unit Information Section** . . . . . 1

Pulverized Coal Fired Main Boiler

**Type of Emissions Unit Addressed in This Section**

- [ X ] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
  
- [ ] This Emissions Unit Information Section addresses, as a single emissions unit, an individually-regulated emission point (stack or vent) serving a single process or production unit, or activity, which also has other individually-regulated emission points.
  
- [ ] This Emissions Unit Information Section addresses, as a single emissions unit, a collectively-regulated 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 only.
  
- [ ] 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.

**Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section :  Pulverized Coal Fired Main Boiler		
2. ARMS Identification Number : 001		
3. Emissions Unit Status Code :  A	4. Acid Rain Unit?  N ✓	5. Emissions Unit Major Group SIC Code :  49
6. Initial Startup Date : 01-Jul-1995		
7. Long-term Reserve Shutdown Date :		
8. Package Unit :  Manufacturer : na Model Number : na		
9. Generator Nameplate Rating : 330 MW		
10. Incinerator Information :  Dwell Temperature : °F Dwell Time : seconds Incinerator Afterburner Temperature : °F		
11. Emissions Unit Comment :  Startup date is date of initial solid fuel fire. Gas and propane first fire April 1995.		

**Emissions Unit Information Section** 1

**Emissions Unit Control Equipment** 1

1. Description :	
Low NOx Burners ✓	
2. Control Device or Method Code :	24

**Emissions Unit Information Section** 1

**Emissions Unit Control Equipment** 2

1. Description :	
Overfire Air (OFA)	✓
2. Control Device or Method Code :	
	25

**Emissions Unit Information Section** 1

**Emissions Unit Control Equipment** 3

1. Description :

Steam Coil Air Heater and Air Preheater ✓

2. Control Device or Method Code : 27

**Emissions Unit Information Section** 1

**Emissions Unit Control Equipment** 4

1. Description :

Corner Fired Air Ports and Dual Register Burners and Windbox Design ✓

2. Control Device or Method Code : 29

III. Part 3 - 24



**Emissions Unit Information Section** 1

**Emissions Unit Control Equipment** 5

1. Description :

Boiler O2 Monitored and Combustion Trim Control provided via Instrumentation

2. Control Device or Method Code : 33

**Emissions Unit Information Section** 1

**Emissions Unit Control Equipment** 6

1. Description :

Ammonia Injection (Part of SCR system)

2. Control Device or Method Code : 32

**Emissions Unit Information Section** 1

**Emissions Unit Control Equipment** 7

1. Description :

Catalytic Reduction (Part of SCR System)

2. Control Device or Method Code : 65

**Emissions Unit Information Section**                      1

**Emissions Unit Control Equipment**                      8

1. Description :	
Spray Dryer Absorber (SDA)	
2. Control Device or Method Code :	67

**Emissions Unit Information Section** 1

**Emissions Unit Control Equipment** 9

1. Description :

Air Heater Ash Hopper with Vacuum Removal System

2. Control Device or Method Code : 6

**Emissions Unit Information Section** 1

**Emissions Unit Control Equipment** 10

1. Description :

Fabric Filter Baghouse

2. Control Device or Method Code : 17

**Emissions Unit Information Section**

1

Pulverized Coal Fired Main Boiler

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate :	3422 mmBtu/hr	✓
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	Units :	
4. Maximum Production Rate :	Units :	
5. Operating Capacity Comment :		

**Emissions Unit Information Section**

1

Pulverized Coal Fired Main Boiler

**Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule :

24 hours/day

7 days/week

52 weeks/year

8760 hours/year



## B. EMISSIONS UNIT REGULATIONS

Emissions Unit Information Section 1

Pulverized Coal Fired Main Boiler

### Rule Applicability Analysis

Not Applicable

## B. EMISSIONS UNIT REGULATIONS

Emissions Unit Information Section 1

Pulverized Coal Fired Main Boiler

### List of Applicable Regulations

40CFR60.1 - 60.15

40CFR60.17

40CFR60.19

40CFR60.40a — Subject *NO*

40CFR60.41a

✓ 40CFR60.42a (a), (b) *PM / UF LIMIT*

40CFR60.43a (a)(2), (b)(2), (g), (h)(2) *SO<sub>2</sub> LIMIT*

✓ 40CFR60.44a(a), (c) *NO<sub>x</sub> LIMIT*

40CFR60.46a (a-c, e-h) *DEFICIENCY*

40CFR60.47a (a), (b)(3), (c-j) *EMISSIONS MONITORING*

40CFR60.48a (a-e) *COMPLIANCE ATTENDANCE PROCEDURES*

40CFR60.49a (a-c, f-i) *REPORTING REQUIREMENTS*

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

### C. EMISSION POINT (STACK/VENT) INFORMATION

**Emissions Unit Information Section**

1

Pulverized Coal Fired Main Boiler

**Emission Point Description and Type :**

1. Identification of Point on Plot Plan or Flow Diagram :	01
2. Emission Point Type Code :	1
3. Descriptions of Emission Points Comprising this Emissions Unit :	01 Main Stack - PC Boiler
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	001 PC Boiler
5. Discharge Type Code :	V
6. Stack Height :	495 feet
7. Exit Diameter :	16.0 feet
8. Exit Temperature :	140 °F
9. Actual Volumetric Flow Rate :	1123700 acfm
10. Percent Water Vapor :	15.00 %
11. Maximum Dry Standard Flow Rate :	dscfm
12. Nonstack Emission Point Height :	feet
13. Emission Point UTM Coordinates :	Zone : East (km) : North (km) :
14. Emission Point Comment :	Airflow in dscfm not listed because the PC boiler has no emission limits in grains/dscfm.

## D. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1

Pulverized Coal Fired Main Boiler

**Segment Description and Rate :** Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Coal Firing	
2. Source Classification Code (SCC) : 1-01-001-01	
3. SCC Units : Tons Burned (all solid fuels)	
4. Maximum Hourly Rate : 145.00	5. Maximum Annual Rate : 1,270,200.00
6. Estimated Annual Activity Factor : 0.00	
7. Maximum Percent Sulfur : 2.00	8. Maximum Percent Ash : 12.00
9. Million Btu per SCC Unit : 24	
10. Segment Comment :	

## D. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1

Pulverized Coal Fired Main Boiler

**Segment Description and Rate :** Segment 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : No. 2 Oil Firing	
2. Source Classification Code (SCC) : 1-01-005-01	
3. SCC Units : Thousand Gallons Burned (all liquid fuels)	
4. Maximum Hourly Rate : 12.70	5. Maximum Annual Rate : 111,135.00
6. Estimated Annual Activity Factor : 0.00	
7. Maximum Percent Sulfur : 0.05	8. Maximum Percent Ash :
9. Million Btu per SCC Unit : 135	
10. Segment Comment : PC Boiler does not currently fire No. 2 Oil No. 2 Oil would be fired during startup, shutdown, and load changes. Firing capacity no more than 50% rated boiler heat input.	

## D. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1

Pulverized Coal Fired Main Boiler

**Segment Description and Rate :** Segment 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Natural Gas Firing	
2. Source Classification Code (SCC) : 1-01-006-01	
3. SCC Units : Million Cubic Feet Burned (all gaseous fuels)	
4. Maximum Hourly Rate : 1.80	5. Maximum Annual Rate : 15,777.00
6. Estimated Annual Activity Factor : 0.00	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit : 950	
10. Segment Comment : Natural Gas is fired during start-up, shut down and load changes. Firing capacity no more than 50% rated boiler heat input.	

## D. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1

Pulverized Coal Fired Main Boiler

**Segment Description and Rate :** Segment 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Propane (LPG) Firing	
2. Source Classification Code (SCC) : 1-01-010-02	
3. SCC Units : Thousand Gallons Burned (all liquid fuels)	
4. Maximum Hourly Rate : 18.90	5. Maximum Annual Rate : 165,617.00
6. Estimated Annual Activity Factor : 0.00	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit : 90	
10. Segment Comment : Propane is burned during start-up, shut-down, and load changes. Firing capacity no more than 50% rated boiler heat input.	

## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**        1  

Pulverized Coal Fired Main Boiler

**Pollutant Potential/Estimated Emissions :**      Pollutant   1  

1. Pollutant Emitted :	CO		
2. Total Percent Efficiency of Control :	0.00	%	
3. Primary Control Device Code :	025		
4. Secondary Control Device Code :	033		
5. Potential Emissions :	376.00	lb/hour	1,649.00      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	Not Applicable		
Reference :	Not Applicable		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	Limit per PSD permit Total Percent Efficiency of Control in Section 2 Not Applicable Emission Factor in Section 8 Not Applicable		
11. Pollutant Potential/Estimated Emissions Comment :	Limit per PSD permit		





## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      1

Pulverized Coal Fired Main Boiler

**Pollutant Potential/Estimated Emissions :**      Pollutant 2

1. Pollutant Emitted :	PB		
2. Total Percent Efficiency of Control :	99.00	%	
3. Primary Control Device Code :	017		
4. Secondary Control Device Code :			
5. Potential Emissions :	0.03	lb/hour	0.15 tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	Not Applicable		
Reference :	Not Applicable		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	<p style="margin-left: 20px;">Limit per PSD permit. Control efficiency not used to calculate potential emissions. Emission Factor in Section 8 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :	Limit per PSD permit		



## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**        1  

Pulverized Coal Fired Main Boiler

**Pollutant Potential/Estimated Emissions :**      Pollutant   3  

1. Pollutant Emitted :	NOX		
2. Total Percent Efficiency of Control :	37.00	%	
3. Primary Control Device Code :	032		
4. Secondary Control Device Code :	065		
5. Potential Emissions :	582.00	lb/hour	2,549.00      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	Not Applicable		
Reference :	Not Applicable		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	 Limit per PSD permit. Control efficiency not used to calculate potential emissions. Emission Factor in Section 8 Not Applicable		
11. Pollutant Potential/Estimated Emissions Comment :	 Limit per PSD permit		



## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      1

Pulverized Coal Fired Main Boiler

**Pollutant Potential/Estimated Emissions :**      Pollutant      4

1. Pollutant Emitted :	PM		
2. Total Percent Efficiency of Control :	99.70	%	
3. Primary Control Device Code :	017		
4. Secondary Control Device Code :			
5. Potential Emissions :	61.60	lb/hour	270.00      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	Not Applicable		
Reference :	Not Applicable		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	<p style="margin-left: 20px;">Limit per PSD permit. Control efficiency not used to calculate potential emissions. Emission Factor in Section 8 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :	Limit per PSD permit		



## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      1

Pulverized Coal Fired Main Boiler

**Pollutant Potential/Estimated Emissions :**      Pollutant      5

1. Pollutant Emitted :	PM10		
2. Total Percent Efficiency of Control :	99.70	%	
3. Primary Control Device Code :	017		
4. Secondary Control Device Code :			
5. Potential Emissions :	61.60	lb/hour	270.00      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	Not Applicable		
Reference :	Not Applicable		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	<p>Limit per PSD permit.  Control efficiency not used to calculate potential emissions.  Emission Factor in Section 8 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :	Limit per PSD permit		



---

III. Part 9a - 10

DEP Form No. 62-210.900(1) - Form

## E. POLLUTANT INFORMATION

Emissions Unit Information Section 1

Pulverized Coal Fired Main Boiler

**Pollutant Potential/Estimated Emissions :** Pollutant 6

1. Pollutant Emitted :	SO2		
2. Total Percent Efficiency of Control :	95.00	%	
3. Primary Control Device Code :	067		
4. Secondary Control Device Code :	017		
5. Potential Emissions :	582.00	lb/hour	2,549.00 tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:	to tons/year		
8. Emissions Factor :	0.00		
Units :	Not Applicable		
Reference :	Not Applicable		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	Limit per PSD permit Control Efficiency not used to calculate emissions Emission Factor in Section 8 Not Applicable		
11. Pollutant Potential/Estimated Emissions Comment :	Limit per PSD permit		

III. Part 9a - 11

DEP Form No. 62-210.900(1) - Form



## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      1

Pulverized Coal Fired Main Boiler

**Pollutant Potential/Estimated Emissions :**      Pollutant      7

1. Pollutant Emitted :	VOC		
2. Total Percent Efficiency of Control :	0.00	%	
3. Primary Control Device Code :	025		
4. Secondary Control Device Code :	033		
5. Potential Emissions :	12.32	lb/hour	54.00      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	Not Applicable		
Reference :	Not Applicable		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	Limit per PSD permit Total Percent Efficiency of Control in Section 2 Not Applicable Emission Factor in Section 8 Not Applicable		
11. Pollutant Potential/Estimated Emissions Comment :	Limit per PSD permit		



## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      1

Pulverized Coal Fired Main Boiler

**Pollutant Potential/Estimated Emissions :**      Pollutant      8

1. Pollutant Emitted :	SAM		
2. Total Percent Efficiency of Control :	95.00	%	
3. Primary Control Device Code :	067		
4. Secondary Control Device Code :	017		
5. Potential Emissions :	1.45	lb/hour	6.51      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	Not Applicable		
Reference :	Not Applicable		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	<p style="margin-left: 20px;">Limit per PSD permit. Control efficiency not used to calculate potential emissions. Emission Factor in Section 8 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :	<p style="margin-left: 20px;">Limit per PSD permit</p>		



## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      1

Pulverized Coal Fired Main Boiler

**Pollutant Potential/Estimated Emissions :**      Pollutant      9

1. Pollutant Emitted :	H021		
2. Total Percent Efficiency of Control :	99.00	%	
3. Primary Control Device Code :	017		
4. Secondary Control Device Code :			
5. Potential Emissions :	0.01	lb/hour	0.04      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	Not Applicable		
Reference :	Not Applicable		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	<p style="margin-left: 20px;">Limit per PSD permit. Control efficiency not used to calculate potential emissions. Emission Factor in Section 8 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :	<p style="margin-left: 20px;">Limit per PSD permit</p>		





## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**        1  

Pulverized Coal Fired Main Boiler

**Pollutant Potential/Estimated Emissions :**      Pollutant        10  

1. Pollutant Emitted :	H114		
2. Total Percent Efficiency of Control :	0.00	%	
3. Primary Control Device Code :			
4. Secondary Control Device Code :	042		
5. Potential Emissions :	0.04	lb/hour	0.17      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	Not Applicable		
Reference :	Not Applicable		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	<p style="margin-left: 20px;">Limit per PSD permit                      Total Percent Efficiency of Control in Section 2 Not Applicable                      Emission Factor in Section 8 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :	<p style="margin-left: 20px;">Limit per PSD permit</p>		



## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      1

Pulverized Coal Fired Main Boiler

**Pollutant Potential/Estimated Emissions :**      Pollutant      11

1. Pollutant Emitted :	FL		
2. Total Percent Efficiency of Control :	95.00	%	
3. Primary Control Device Code :	067		
4. Secondary Control Device Code :	017		
5. Potential Emissions :	5.08	lb/hour	22.30      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	Not Applicable		
Reference :	Not Applicable		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	<p style="margin-left: 20px;">Limit per PSD permit. Control efficiency not used to calculate potential emissions. Emission Factor in Section 8 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :	<p style="margin-left: 20px;">Limit per PSD permit</p>		



## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      1

Pulverized Coal Fired Main Boiler

**Pollutant Potential/Estimated Emissions :**      Pollutant 12

1. Pollutant Emitted :	H015		
2. Total Percent Efficiency of Control :	99.00	%	
3. Primary Control Device Code :	017		
4. Secondary Control Device Code :			
5. Potential Emissions :	0.18	lb/hour	0.77 tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	Not Applicable		
Reference :	Not Applicable		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	<p>Limit per PSD permit.  Control efficiency not used to calculate potential emissions.  Emission Factor in Section 8 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :	<p>Limit per PSD permit</p>		



## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      1

Pulverized Coal Fired Main Boiler

**Pollutant Potential/Estimated Emissions :**      Pollutant      13

1. Pollutant Emitted :	H106		
2. Total Percent Efficiency of Control :	95.00	%	
3. Primary Control Device Code :	067		
4. Secondary Control Device Code :	017		
5. Potential Emissions :	22.40	lb/hour	97.90      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	See Calc Below		
Reference :	See Calc Below		
9. Emissions Method Code :	2		
10. Calculations of Emissions :	<p>Mass balance on specification for chlorine content in coal. Chlorine weight fraction times maximum expected coal firing rate; assume all chlorine becomes HCl, conservatively assume 95% control in spray dryer/baghouse. See Table 4-3 in text.</p>		
11. Pollutant Potential/Estimated Emissions Comment :			



Mass Balance per Section 4.1.1.3 in application text.  
Emission rates are estimates only and should not be considered permit limits.

## F. VISIBLE EMISSIONS INFORMATION

Emissions Unit Information Section 1

**Visible Emissions Limitation :** Visible Emissions Limitation 1

1. Visible Emissions Subtype :	VE
2. Basis for Allowable Opacity :	RULE
3. Requested Allowable Opacity :	
	Normal Conditions : %
	Exceptional Conditions : %
	Maximum Period of Excess Opacity Allowed : min/hour
4. Method of Compliance :	
	Continuous opacity meter
5. Visible Emissions Comment :	
	Required by permit PSD-FL-168, Condition 8. 10% opacity allowed, 6 minute average. Start up and shut down periods excluded, not to exceed 2 hours per 62-210.700.

## G. CONTINUOUS MONITOR INFORMATION

Emissions Unit Information Section 1

Pulverized Coal Fired Main Boiler

**Continuous Monitoring System :** Continuous Monitor 1

1. Parameter Code :	EM
2. CMS Requirement :	RULE
3. Monitor Information :	<p>Manufacturer : Thermo Electron Model Number : 43B Serial Number : 43B-50796-286</p>
4. Installation Date :	01-Jul-1995
5. Performance Specification Test Date :	31-Oct-1995
6. Continuous Monitor Comment :	Required by PSD permit PSD-FL-168, condition 23 (SO2) ✓

## G. CONTINUOUS MONITOR INFORMATION

Emissions Unit Information Section 1

Pulverized Coal Fired Main Boiler

Continuous Monitoring System : Continuous Monitor 2

1. Parameter Code :	EM
2. CMS Requirement :	RULE
3. Monitor Information :	<p>Manufacturer : Thermo Electron Model Number : 42 Serial Number : 42D-51059-287</p>
4. Installation Date :	01-Jul-1995
5. Performance Specification Test Date :	31-Oct-1995
6. Continuous Monitor Comment :	Required by permit PSD-FL-168, condition 23 (NOx) ✓

## G. CONTINUOUS MONITOR INFORMATION

**Emissions Unit Information Section**      1

Pulverized Coal Fired Main Boiler

**Continuous Monitoring System :**      Continuous Monitor      3

1. Parameter Code :	CO2
2. CMS Requirement :	RULE
3. Monitor Information :	
Manufacturer :	California Analytical
Model Number :	ZRH-1
Serial Number :	94J-3893 T
4. Installation Date :	01-Jul-1995
5. Performance Specification Test Date :	31-Oct-1995
6. Continuous Monitor Comment :	
	Required by permit PSD-FL-168, condition 23 ✓

## G. CONTINUOUS MONITOR INFORMATION

**Emissions Unit Information Section**      1

Pulverized Coal Fired Main Boiler

**Continuous Monitoring System :**      Continuous Monitor      4

1. Parameter Code :	VE
2. CMS Requirement :	RULE
3. Monitor Information :	<p>Manufacturer : Enviroplan/Durag Model Number : D-R281-AV Serial Number : 31008</p>
4. Installation Date :	01-Jul-1995
5. Performance Specification Test Date :	23-Dec-1995
6. Continuous Monitor Comment :	Required by permit PSD-FL-168, condition 23 ✓

## H. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

### Emissions Unit Information Section 1

Pulverized Coal Fired Main Boiler

### PSD Increment Consumption Determination

#### 1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

- The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

- The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
  
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
  
- The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
  
- For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
  
- None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :			
PM :	C		
SO2 :	C		
NO2 :	C		
4. Baseline Emissions :			
PM :	0.0000 lb/hour		0.0000 tons/year
SO2 :	0.0000 lb/hour		0.0000 tons/year
NO2 :			0.0000 tons/year
5. PSD Comment :			
Emission Unit underwent PSD review prior to obtaining permit PSD-FL-168			





## I. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 1

Pulverized Coal Fired Main Boiler

### Supplemental Requirements for All Applications

1. Process Flow Diagram :	09
2. Fuel Analysis or Specification :	10
3. Detailed Description of Control Equipment :	11
4. Description of Stack Sampling Facilities :	12
5. Compliance Test Report :	3/96
6. Procedures for Startup and Shutdown :	13
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	NA
9. Other Information Required by Rule or Statue :	NA

### Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :	NA
11. Alterntive Modes of Operation (Emissions Trading) :	NA
12. Enhanced Monitoring Plan :	NA

III. Part 13 - 1

13. Identification of Additional Applicable Requirements :

NA

14. Acid Rain Application (Hard-copy Required) :

NA	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
NA	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
NA	New Unit Exemption (Form No. 62-210.900(1)(a)2.)
NA	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

### III. EMISSIONS UNIT INFORMATION

#### A. GENERAL EMISSIONS UNIT INFORMATION

Emissions Unit Information Section 2

(2) Auxiliary Boilers

**Type of Emissions Unit Addressed in This Section**

- ] 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, an individually-regulated emission point (stack or vent) serving a single process or production unit, or activity, which also has other individually-regulated emission points.
  
- ] This Emissions Unit Information Section addresses, as a single emissions unit, a collectively-regulated 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 only.
  
- ] 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.

**Emissions Unit Information Section**

2.

**Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section :  (2) Auxiliary Boilers		
2. ARMS Identification Number : 003		
3. Emissions Unit Status Code :	4. Acid Rain Unit?	5. Emissions Unit Major Group SIC Code :
A	N	49
6. Initial Startup Date : 19-Jan-1995		
7. Long-term Reserve Shutdown Date :		
8. Package Unit :  Manufacturer : Nebraska Model Number : N2S-7/S-73 (2)		
9. Generator Nameplate Rating : MW		
10. Incinerator Information :  Dwell Temperature : °F Dwell Time : seconds Incinerator Afterburner Temperature : °F		
11. Emissions Unit Comment :  Two identical Nebraska boilers ducted to a single emission point.		

**Emissions Unit Information Section**                      2

**Emissions Unit Control Equipment**                      1

1. Description :	
Low NOx Burners	
2. Control Device or Method Code :	24

(2) Auxiliary Boilers

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate :	358 mMBtu/hr
2. Maximum Incinerator Rate :	lb/hr                      tons/day
3. Maximum Process or Throughput Rate :	Units :
4. Maximum Production Rate :	Units :
5. Operating Capacity Comment :	<p>Maximum heat input capacity = 358 MMBtu/hr when firing natural gas and 342 MMBtu/hr when firing #2 oil                      Firing rate is total for both boilers                      Note: facility does not currently burn #2 oil                      PSD Permit limits operation to 5000 hr/yr total, 1000 hr/yr oil</p>

**Emissions Unit Information Section**

2

(2) Auxiliary Boilers

**Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule :

24 hours/day

7 days/week

52 weeks/year

8760 hours/year



**B. EMISSIONS UNIT REGULATIONS**

**Emissions Unit Information Section**      2

(2) Auxiliary Boilers

**Rule Applicability Analysis**

Not Applicable

B. EMISSIONS UNIT REGULATIONS

Emissions Unit Information Section 2

(2) Auxiliary Boilers

List of Applicable Regulations

40CFR60.1-15

40CFR60.17

40CFR60.19

✓ 40CFR60.40b (a) *✓*

40CFR60.41b *SUBPART 111  
D. 2.11.1.*

✓ 40CFR60.42b (j)(2) (oil firing only) *SO<sub>2</sub>*

✓ 40CFR60.43b (f, g) (oil firing only) *PM*

✓ 40CFR60.44b (a)(1)(ii), (h), (i) *NO<sub>x</sub>*

✓ 40CFR60.45b (j) (oil firing only) *SO<sub>2</sub> COMPLIANCE*

✓ 40CFR60.46b (a), (b - oil firing only), (c), (d)(7 - oil firing only), (e)(1,4) *PM + NO<sub>x</sub>*

✓ 40CFR60.47b (f) (oil firing only) *OPERATING MONITORING*

✓ 40CFR60.48b (a - oil firing only), (b-d), (e)(2, 3), (f), (g)(1) *EMISSIONS MONITORING*

40CFR60.49b (a)(1,3), (b), (d), (g), (h)(2, 4), (i), (o) *1,2,3,4  
Emissions + Recordkeeping*

*f*  
*SEE  
NET  
PAGE  
III. Part 6b - 2*

## B. EMISSIONS UNIT REGULATIONS

Emissions Unit Information Section 2

(2) Auxiliary Boilers

### List of Applicable Regulations

40CFR60.49b (f), (h)(1, 3), (r) (oil firing only)

62-296.406

III. Part 6b - 3

DEP Form No. 62-210.900(1) - Form

### C. EMISSION POINT (STACK/VENT) INFORMATION

**Emissions Unit Information Section**      2

(2) Auxiliary Boilers

**Emission Point Description and Type :**

1. Identification of Point on Plot Plan or Flow Diagram :	02
2. Emission Point Type Code :	1
3. Descriptions of Emission Points Comprising this Emissions Unit :	(2) Auxiliary Boilers
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	003: 2 Identical Auxiliary Boilers
5. Discharge Type Code :	V
6. Stack Height :	210 feet
7. Exit Diameter :	5.0 feet
8. Exit Temperature :	350 °F
9. Actual Volumetric Flow Rate :	103200 acfm
10. Percent Water Vapor :	18.00 %
11. Maximum Dry Standard Flow Rate :	dscfm
12. Nonstack Emission Point Height :	feet
13. Emission Point UTM Coordinates :	
Zone :	East (km) :
	North (km) :
14. Emission Point Comment :	
	Airflows and moisture content estimated from fuel consumption performance data. No dscfm listed because the Aux boilers have no grains/dscfm limits.

## D. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 2

(2) Auxiliary Boilers

**Segment Description and Rate :** Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : #2 Fuel Oil Firing	
2. Source Classification Code (SCC) : 1-02-005-01	
3. SCC Units : Thousand Gallons Burned (all liquid fuels)	
4. Maximum Hourly Rate : 2.44	5. Maximum Annual Rate : 2,442.85
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur : 0.05	8. Maximum Percent Ash :
9. Million Btu per SCC Unit : 135	
10. Segment Comment : Limited to combined total of 1000 hr per year Note: facility does not currently burn #2 oil	

**D. SEGMENT (PROCESS/FUEL) INFORMATION**

**Emissions Unit Information Section**      2

(2) Auxiliary Boilers

**Segment Description and Rate :**      Segment 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) :  Propane Firing	
2. Source Classification Code (SCC) :      1-02-010-02	
3. SCC Units :      Thousand Gallons Burned (all liquid fuels)	
4. Maximum Hourly Rate :      3.96	5. Maximum Annual Rate :      19,779.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :      90	
10. Segment Comment :  Overall firing limited to combined total of 5000 hrs per year, as discussed in Section 5.2.1 of application text.	

## D. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 2

(2) Auxiliary Boilers

**Segment Description and Rate :** Segment 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Natural Gas Firing	
2. Source Classification Code (SCC) : 1-02-006-01	
3. SCC Units : Million Cubic Feet Burned (all gaseous fuels)	
4. Maximum Hourly Rate : 0.38	5. Maximum Annual Rate : 1,884.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit : 950	
10. Segment Comment : Overall firing limited to combined total of 5000 hrs per year, as discussed in Section 5.2.1 of application text.	

## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      2

(2) Auxiliary Boilers

**Pollutant Potential/Estimated Emissions :**      Pollutant      3

1. Pollutant Emitted :	PM		
2. Total Percent Efficiency of Control :	0.00	%	
3. Primary Control Device Code :			
4. Secondary Control Device Code :			
5. Potential Emissions :	23.73	lb/hour	59.34      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	See Below		
Reference :	See Below		
9. Emissions Method Code :	3		
10. Calculations of Emissions :	<p>The FIRE emission factor calcs for propane for the allowable firing.                  See Table 4-4 of Application Text.                  Emission Factor in Section 8 Not Applicable,                  Control Efficiency in Section 2 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :			



See discussion in Sections 4.1.2 and 5.2 of Application Text

## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      2

(2) Auxiliary Boilers

**Pollutant Potential/Estimated Emissions :**      Pollutant      5

1. Pollutant Emitted :	SO2		
2. Total Percent Efficiency of Control :	0.00	%	
3. Primary Control Device Code :			
4. Secondary Control Device Code :			
5. Potential Emissions :	18.00	lb/hour	16.91      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	See Below		
Reference :	See Below		
9. Emissions Method Code :	3.		
10. Calculations of Emissions :	<p>The sum of permit limits for oil firing times the maximum allowed oil firing, plus the FIRE emission factor calcs for propane/nat gas for the remaining allowable firing. See Table 4-4 of Application Text.</p> <p>Emission Factor in Section 8 Not Applicable, Control Efficiency in Section 2 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :			

See discussion in Sections 4.1.2 and 5.2 of Application Text

## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      2

(2) Auxiliary Boilers

**Pollutant Potential/Estimated Emissions :**      Pollutant 4

1. Pollutant Emitted :	PM10		
2. Total Percent Efficiency of Control :	0.00	%	
3. Primary Control Device Code :			
4. Secondary Control Device Code :			
5. Potential Emissions :	10.29	lb/hour	25.71      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	See Below		
Reference :	See Below		
9. Emissions Method Code :	3		
10. Calculations of Emissions :	<p>The FIRE emission factor calcs for propane for the allowable firing.                  See Table 4-4 of Application Text.                  Emission Factor in Section 8 Not Applicable,                  Control Efficiency in Section 2 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :			

See discussion in Sections 4.1.2 and 5.2 of Application Text

## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      2

(2) Auxiliary Boilers

**Pollutant Potential/Estimated Emissions :**      Pollutant      2

1. Pollutant Emitted :	NOX		
2. Total Percent Efficiency of Control :	0.00	%	
3. Primary Control Device Code :	024		
4. Secondary Control Device Code :			
5. Potential Emissions :	71.60	lb/hour	179.00      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	See Below		
Reference :	See Below		
9. Emissions Method Code :	3		
10. Calculations of Emissions :	<p>The NSPS Subpart Db limits for propane/nat gas for the allowable firing. See Table 4-4 of Application Text.                      Emission Factor in Section 8 Not Applicable,                      Control Efficiency in Section 2 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :			

See discussion in Sections 4.1.2 and 5.2 of Application Text

## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      2

(2) Auxiliary Boilers

**Pollutant Potential/Estimated Emissions :**      Pollutant 1

1. Pollutant Emitted :	CO		
2. Total Percent Efficiency of Control :	0.00	%	
3. Primary Control Device Code :			
4. Secondary Control Device Code :			
5. Potential Emissions :	48.00	lb/hour	60.18      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	See Below		
Reference :	See Below		
9. Emissions Method Code :	3		
10. Calculations of Emissions :	<p>The sum of permit limits for oil firing times the maximum allowed oil firing, plus the FIRE emission factor calcs for propane/nat gas for the remaining allowable firing. See Table 4-4 of Application Text.</p> <p>Emission Factor in Section 8 Not Applicable, Control Efficiency in Section 2 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :			



See discussion in Sections 4.1.2 and 5.2 of Application Text

## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      2

(2) Auxiliary Boilers

**Pollutant Potential/Estimated Emissions :**      Pollutant 6

1. Pollutant Emitted :	VOC		
2. Total Percent Efficiency of Control :	0.00	%	
3. Primary Control Device Code :			
4. Secondary Control Device Code :			
5. Potential Emissions :	9.89	lb/hour	24.72      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	See Below		
Reference :	See Below		
9. Emissions Method Code :	3		
10. Calculations of Emissions :	<p>The FIRE emission factor calcs for propane for the allowable firing.                  See Table 4-4 of Application Text.                  Emission Factor in Section 8 Not Applicable,                  Control Efficiency in Section 2 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :			

## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      2

(2) Auxiliary Boilers

**Pollutant Potential/Estimated Emissions :**      Pollutant      9

1. Pollutant Emitted :	PB		
2. Total Percent Efficiency of Control :	0.00	%	
3. Primary Control Device Code :			
4. Secondary Control Device Code :			
5. Potential Emissions :	0.04	lb/hour	0.02 tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	See Below		
Reference :	See Below		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	<p>Permit limits for oil firing times the maximum allowed oil firing. No FIRE emission factor calcs for propane/nat gas available. See Table 4-4 of Application Text.                      Emission Factor in Section 8 Not Applicable,                      Control Efficiency in Section 2 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :			

See discussion in Sections 4.1.2 and 5.2 of Application Text

III. Part 9a - 46 44

DEP Form No. 62-210.900(1) - Form

See discussion in Sections 4.1.2 and 5.2 of Application Text

## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      2

(2) Auxiliary Boilers

**Pollutant Potential/Estimated Emissions :**      Pollutant 7

1. Pollutant Emitted :	H021		
2. Total Percent Efficiency of Control :	0.00	%	
3. Primary Control Device Code :			
4. Secondary Control Device Code :			
5. Potential Emissions :	0.00	lb/hour	0.00 tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	See Below		
Reference :	See Below		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	<p>Permit limits for oil firing times the maximum allowed oil firing. No FIRE emission factor calcs for propane/nat gas available. See Table 4-4 of Application Text.                      Emission Factor in Section 8 Not Applicable,                      Control Efficiency in Section 2 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :			

See discussion in Sections 4.1.2 and 5.2 of Application Text

III. Part 9a - 42 40

DEP Form No. 62-210.900(1) - Form

## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      2

(2) Auxiliary Boilers

**Pollutant Potential/Estimated Emissions :**      Pollutant      8

1. Pollutant Emitted :	H114		
2. Total Percent Efficiency of Control :	0.00	%	
3. Primary Control Device Code :			
4. Secondary Control Device Code :			
5. Potential Emissions :	0.00	lb/hour	0.01 tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:		to	tons/year
8. Emissions Factor :	0.00		
Units :	See Below		
Reference :	See Below		
9. Emissions Method Code :	3		
10. Calculations of Emissions :	<p>The FIRE emission factor calcs for natural gas for the allowable firing.                  See Table 4-4 of Application Text.                  Emission Factor in Section 8 Not Applicable,                  Control Efficiency in Section 2 Not Applicable</p>		
11. Pollutant Potential/Estimated Emissions Comment :			



See discussion in Sections 4.1.2 and 5.2 of Application Text

III. Part 9a - 44 42

DEP Form No. 62-210.900(1) - Form

## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      2

(2) Auxiliary Boilers

**Pollutant Potential/Estimated Emissions :**      Pollutant      10

1. Pollutant Emitted :	H015				
2. Total Percent Efficiency of Control :	0.00	%			
3. Primary Control Device Code :					
4. Secondary Control Device Code :					
5. Potential Emissions :	0.01	lb/hour	0.00	tons/year	
6. Synthetically Limited?	N				
7. Range of Estimated Fugitive/Other Emissions:			to		tons/year
8. Emissions Factor :	0.00				
Units :	See Below				
Reference :	See Below				
9. Emissions Method Code :	5				
10. Calculations of Emissions :	<p>Permit limits for oil firing times the maximum allowed oil firing. No FIRE emission factor calcs for propane/nat gas available. See Table 4-4 of Application Text.  Emission Factor in Section 8 Not Applicable,  Control Efficiency in Section 2 Not Applicable</p>				
11. Pollutant Potential/Estimated Emissions Comment :					

III. Part 9a - ~~47~~ 45

See discussion in Sections 4.1.2 and 5.2 of Application Text

III. Part 9a - 48 46

DEP Form No. 62-210.900(1) - Form

## F. VISIBLE EMISSIONS INFORMATION

Emissions Unit Information Section 2

**Visible Emissions Limitation :** Visible Emissions Limitation 1

1. Visible Emissions Subtype :	VE
2. Basis for Allowable Opacity :	RULE
3. Requested Allowable Opacity :	
	Normal Conditions : %
	Exceptional Conditions : %
	Maximum Period of Excess Opacity Allowed : min/hour
4. Method of Compliance :	
	Opacity Monitor will be installed before oil is burned.
5. Visible Emissions Comment :	
	Oil Burning Only: Visible Emissions less than 20% except one 6-minute period per hour opacity <27%, per 62-296.406, and NSPS Sub. Db (for oil firing). Start up and shut down exclusions for up to 2 hours per 62-210.700.

III. Part 10 - § 2

## G. CONTINUOUS MONITOR INFORMATION

Emissions Unit Information Section 2

(2) Auxiliary Boilers

*NOX*

**Continuous Monitoring System :** Continuous Monitor 1

1. Parameter Code :	EM
2. CMS Requirement :	RULE
3. Monitor Information :	<p>Manufacturer : Thermo Electron (2 monitors) Model Number : 42 Serial Number : 39993-262</p>
4. Installation Date :	
5. Performance Specification Test Date :	21-Dec-1995
6. Continuous Monitor Comment :	<p>NOx: 2 monitors, one on each boiler, to fulfill NSPS Subpart Db requirements. Monitor B serial 49661-284</p>

## G. CONTINUOUS MONITOR INFORMATION

Emissions Unit Information Section 2

(2) Auxiliary Boilers

**Continuous Monitoring System :** Continuous Monitor 2

1. Parameter Code :	CO2
2. CMS Requirement :	RULE
3. Monitor Information :	<p>Manufacturer : California Analytical (2 monitors) Model Number : ZRH-1 Serial Number : NSB-3533 T</p>
4. Installation Date :	
5. Performance Specification Test Date :	21-Dec-1995
6. Continuous Monitor Comment :	<p>2 monitors, one on each boiler, to fulfill NSPS Subpart Db requirements. Monitor B serial NSB-3530 T</p>

## H. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 2

(2) Auxiliary Boilers

### PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

- The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

- ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :

PM : C  
SO2 : C  
NO2 : C

4. Baseline Emissions :

PM :	0.0000 lb/hour	0.0000 tons/year
SO2 :	0.0000 lb/hour	0.0000 tons/year
NO2 :		0.0000 tons/year

5. PSD Comment :

Part of facility application PSD-FL-168





## I. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 2

(2) Auxiliary Boilers

### **Supplemental Requirements for All Applications**

1. Process Flow Diagram :	14
2. Fuel Analysis or Specification :	15
3. Detailed Description of Control Equipment :	16
4. Description of Stack Sampling Facilities :	17
5. Compliance Test Report :	
6. Procedures for Startup and Shutdown :	18
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	NA
9. Other Information Required by Rule or Statute :	NA

### **Additional Supplemental Requirements for Category I Applications Only**

10. Alternative Methods of Operations :	NA
11. Alternative Modes of Operation (Emissions Trading) :	NA
12. Enhanced Monitoring Plan :	NA

III. Part 13 - 3

DEP Form No. 62-210.900(1) - Form

13. Identification of Additional Applicable Requirements :		NA
14. Acid Rain Application (Hard-copy Required) :		
NA	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))	
NA	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)	
NA	New Unit Exemption (Form No. 62-210.900(1)(a)2.)	
NA	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)	

### III. EMISSIONS UNIT INFORMATION

#### A. GENERAL EMISSIONS UNIT INFORMATION

**Emissions Unit Information Section** 3

Coal Handling System

**Type of Emissions Unit Addressed in This Section**

- ] 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, an individually-regulated emission point (stack or vent) serving a single process or production unit, or activity, which also has other individually-regulated emission points.
  
- ] This Emissions Unit Information Section addresses, as a single emissions unit, a collectively-regulated 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 only.
  
- ] 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.

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section :  Coal Handling System		
2. ARMS Identification Number : 004		
3. Emissions Unit Status Code :	4. Acid Rain Unit?	5. Emissions Unit Major Group SIC Code :
A	N	49
6. Initial Startup Date : 01-Mar-1995		
7. Long-term Reserve Shutdown Date :		
8. Package Unit :  Manufacturer : Model Number :		
9. Generator Nameplate Rating : MW		
10. Incinerator Information :  Dwell Temperature : °F Dwell Time : seconds Incinerator Afterburner Temperature : °F		
11. Emissions Unit Comment :  Coal Handling System, including transport, crushing, storage equipment.		

**Emissions Unit Information Section**                      3

**Emissions Unit Control Equipment**                      1

1. Description :

Fabric Filter Baghouses on Unload Building, Storage Area, Crusher, and Top of Silo.

2. Control Device or Method Code :                      18

**Emissions Unit Information Section** 3

**Emissions Unit Control Equipment** 2

1. Description :

Enclosed conveyors, transfer points, and handling equipment where practical

2. Control Device or Method Code : 54

**Emissions Unit Information Section**                      3

**Emissions Unit Control Equipment**                      3

1. Description :

Wet suppression on coal railcar unloading operation, drop onto pile in coal storage building, and outdoor coal pile as needed.

2. Control Device or Method Code :                      61



**Emissions Unit Information Section** 3

**Emissions Unit Control Equipment** 4

1. Description :

Wet suppression on coal railcar unloading operation, drop onto pile in coal storage building, and outdoor coal pile as needed.

2. Control Device or Method Code : 62

Coal Handling System

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate :	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	1100	
	Units :	tons per hour
4. Maximum Production Rate :		
	Units :	
5. Operating Capacity Comment :	The coal handling system is comprised of several conveyors, crushers, etc. with different capacities. The overall maximum throughput rate is approximately 1,100 tph.	

**Emissions Unit Information Section**

3

Coal Handling System

**Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule :

24 hours/day

7 days/week

52 weeks/year

8760 hours/year

**B. EMISSIONS UNIT REGULATIONS**

**Emissions Unit Information Section**      3

Coal Handling System

**Rule Applicability Analysis**

Not Applicable

## B. EMISSIONS UNIT REGULATIONS

Emissions Unit Information Section 3

Coal Handling System

### List of Applicable Regulations

40CFR60.1-6

40CFR60.7 (a, b, f-h)

40CFR60.8-12

40CFR60.250-251

— SUBPART 1

40CFR60.252(c)

40CFR60.254 (a), (b)(2)

### C. EMISSION POINT (STACK/VENT) INFORMATION

**Emissions Unit Information Section**

3

Coal Handling System

**Emission Point Description and Type :**

1. Identification of Point on Plot Plan or Flow Diagram :	03
2. Emission Point Type Code :	3
3. Descriptions of Emission Points Comprising this Emissions Unit :	System 1 Unload Building
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	004 Coal Handling System
5. Discharge Type Code :	V
6. Stack Height :	30 feet
7. Exit Diameter :	2.80 feet
8. Exit Temperature :	77 °F
9. Actual Volumetric Flow Rate :	15,000 acfm
10. Percent Water Vapor :	3.00 %
11. Maximum Dry Standard Flow Rate :	dscfm
12. Nonstack Emission Point Height :	feet
13. Emission Point UTM Coordinates :	
Zone :	East (km) :
	North (km) :
14. Emission Point Comment :	
Crusher stack chosen because it has the highest air flow and greatest potential to emit. No dscfm listed because the coal handling system has no limits in grains/dscfm (limits are 0.01 gr/acf in permit PSD-FL-168)	

### C. EMISSION POINT (STACK/VENT) INFORMATION

**Emissions Unit Information Section**

3

Coal Handling System

**Emission Point Description and Type :**

1. Identification of Point on Plot Plan or Flow Diagram :	03
2. Emission Point Type Code :	3
3. Descriptions of Emission Points Comprising this Emissions Unit :	System 2 Storage Area
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	004 Coal Handling System
5. Discharge Type Code :	V
6. Stack Height :	30 feet
7. Exit Diameter :	2.80 feet
8. Exit Temperature :	77 °F
9. Actual Volumetric Flow Rate :	15,000 acfm
10. Percent Water Vapor :	3.00 %
11. Maximum Dry Standard Flow Rate :	dscfm
12. Nonstack Emission Point Height :	feet
13. Emission Point UTM Coordinates :	
Zone :	East (km) :
	North (km) :
14. Emission Point Comment :	
Crusher stack chosen because it has the highest air flow and greatest potential to emit. No dscfm listed because the coal handling system has no limits in grains/dscfm (limits are 0.01 gr/acf in permit PSD-FL-168)	

### C. EMISSION POINT (STACK/VENT) INFORMATION

**Emissions Unit Information Section**

3

Coal Handling System

**Emission Point Description and Type :**

1. Identification of Point on Plot Plan or Flow Diagram :	03
2. Emission Point Type Code :	3
3. Descriptions of Emission Points Comprising this Emissions Unit :	System 3 Crusher
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	004 Coal Handling System
5. Discharge Type Code :	V
6. Stack Height :	30 feet
7. Exit Diameter :	2.80 feet
8. Exit Temperature :	77 °F
9. Actual Volumetric Flow Rate :	15,000 acfm
10. Percent Water Vapor :	3.00 %
11. Maximum Dry Standard Flow Rate :	dscfm
12. Nonstack Emission Point Height :	feet
13. Emission Point UTM Coordinates :	Zone : East (km) : North (km) :
14. Emission Point Comment :	Crusher stack chosen because it has the highest air flow and greatest potential to emit. No dscfm listed because the coal handling system has no limits in grains/dscfm (limits are 0.01 gr/acf in permit PSD-FL-168)



### C. EMISSION POINT (STACK/VENT) INFORMATION

**Emissions Unit Information Section**

3

Coal Handling System

**Emission Point Description and Type :**

1. Identification of Point on Plot Plan or Flow Diagram :	03
2. Emission Point Type Code :	3
3. Descriptions of Emission Points Comprising this Emissions Unit :	System 4 Top of Silo
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	004 Coal Handling System
5. Discharge Type Code :	V
6. Stack Height :	30 feet
7. Exit Diameter :	2.80 feet
8. Exit Temperature :	77 °F
9. Actual Volumetric Flow Rate :	15,000 acfm
10. Percent Water Vapor :	3.00 %
11. Maximum Dry Standard Flow Rate :	dscfm
12. Nonstack Emission Point Height :	feet
13. Emission Point UTM Coordinates :	Zone : East (km) : North (km) :
14. Emission Point Comment :	Crusher stack chosen because it has the highest air flow and greatest potential to emit. No dscfm listed because the coal handling system has no limits in grains/dscfm (limits are 0.01 gr/acf in permit PSD-FL-168)

### C. EMISSION POINT (STACK/VENT) INFORMATION

**Emissions Unit Information Section**

3

Coal Handling System

**Emission Point Description and Type :**

1. Identification of Point on Plot Plan or Flow Diagram :	03
2. Emission Point Type Code :	3
3. Descriptions of Emission Points Comprising this Emissions Unit :	Coal Pile
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	004 Coal Handling System
5. Discharge Type Code :	V
6. Stack Height :	30 feet
7. Exit Diameter :	2.80 feet
8. Exit Temperature :	77 °F
9. Actual Volumetric Flow Rate :	15,000 acfm
10. Percent Water Vapor :	3.00 %
11. Maximum Dry Standard Flow Rate :	dscfm
12. Nonstack Emission Point Height :	feet
13. Emission Point UTM Coordinates :	Zone : East (km) : North (km) :
14. Emission Point Comment :	Crusher stack chosen because it has the highest air flow and greatest potential to emit. No dscfm listed because the coal handling system has no limits in grains/dscfm (limits are 0.01 gr/acf in permit PSD-FL-168)

### C. EMISSION POINT (STACK/VENT) INFORMATION

**Emissions Unit Information Section**

3

Coal Handling System

**Emission Point Description and Type :**

1. Identification of Point on Plot Plan or Flow Diagram :	03
2. Emission Point Type Code :	3
3. Descriptions of Emission Points Comprising this Emissions Unit :	Coal Railcar Unloading
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	004 Coal Handling System
5. Discharge Type Code :	V
6. Stack Height :	30 feet
7. Exit Diameter :	2.80 feet
8. Exit Temperature :	77 °F
9. Actual Volumetric Flow Rate :	15,000 acfm
10. Percent Water Vapor :	3.00 %
11. Maximum Dry Standard Flow Rate :	dscfm
12. Nonstack Emission Point Height :	feet
13. Emission Point UTM Coordinates :	Zone : East (km) : North (km) :
14. Emission Point Comment :	Crusher stack chosen because it has the highest air flow and greatest potential to emit. No dscfm listed because the coal handling system has no limits in grains/dscfm (limits are 0.01 gr/acf in permit PSD-FL-168)

### C. EMISSION POINT (STACK/VENT) INFORMATION

**Emissions Unit Information Section**      3

Coal Handling System

**Emission Point Description and Type :**

1. Identification of Point on Plot Plan or Flow Diagram :	03
2. Emission Point Type Code :	3
3. Descriptions of Emission Points Comprising this Emissions Unit :	Coal Emergency Stackout
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	004 Coal Handling System
5. Discharge Type Code :	V
6. Stack Height :	30 feet
7. Exit Diameter :	2.80 feet
8. Exit Temperature :	77 °F
9. Actual Volumetric Flow Rate :	15,000 acfm
10. Percent Water Vapor :	3.00 %
11. Maximum Dry Standard Flow Rate :	dscfm
12. Nonstack Emission Point Height :	feet
13. Emission Point UTM Coordinates :	Zone :                      East (km) :                      North (km) :
14. Emission Point Comment :	Crusher stack chosen because it has the highest air flow and greatest potential to emit. No dscfm listed because the coal handling system has no limits in grains/dscfm (limits are 0.01 gr/acf in permit PSD-FL-168)

### C. EMISSION POINT (STACK/VENT) INFORMATION

**Emissions Unit Information Section**      3

Coal Handling System

**Emission Point Description and Type :**

1. Identification of Point on Plot Plan or Flow Diagram :	03
2. Emission Point Type Code :	3
3. Descriptions of Emission Points Comprising this Emissions Unit :	Magnetic Separator Drop
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	004 Coal Handling System
5. Discharge Type Code :	V
6. Stack Height :	30 feet
7. Exit Diameter :	2.80 feet
8. Exit Temperature :	77 °F
9. Actual Volumetric Flow Rate :	15,000 acfm
10. Percent Water Vapor :	3.00 %
11. Maximum Dry Standard Flow Rate :	dscfm
12. Nonstack Emission Point Height :	feet
13. Emission Point UTM Coordinates :	Zone :                      East (km) :                      North (km) :
14. Emission Point Comment :	Crusher stack chosen because it has the highest air flow and greatest potential to emit. No dscfm listed because the coal handling system has no limits in grains/dscfm (limits are 0.01 gr/acf in permit PSD-FL-168)

### C. EMISSION POINT (STACK/VENT) INFORMATION

**Emissions Unit Information Section**

3

Coal Handling System

**Emission Point Description and Type :**

1. Identification of Point on Plot Plan or Flow Diagram :	03
2. Emission Point Type Code :	3
3. Descriptions of Emission Points Comprising this Emissions Unit :	Drop onto Pile in Building
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	004 Coal Handling System
5. Discharge Type Code :	V
6. Stack Height :	30 feet
7. Exit Diameter :	2.80 feet
8. Exit Temperature :	77 °F
9. Actual Volumetric Flow Rate :	15,000 acfm
10. Percent Water Vapor :	3.00 %
11. Maximum Dry Standard Flow Rate :	dscfm
12. Nonstack Emission Point Height :	feet
13. Emission Point UTM Coordinates :	Zone : East (km) : North (km) :
14. Emission Point Comment :	Crusher stack chosen because it has the highest air flow and greatest potential to emit. No dscfm listed because the coal handling system has no limits in grains/dscfm (limits are 0.01 gr/acf in permit PSD-FL-168)

## D. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 3

Coal Handling System

**Segment Description and Rate :** Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Coal Unloading	
2. Source Classification Code (SCC) : 3-05-101-08	
3. SCC Units : Tons Processed	
4. Maximum Hourly Rate : 1,100.00	5. Maximum Annual Rate : 1,270,200.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment : Rated hourly capacity. Annual capacity limited by total that can be fired in the PC Boiler.	

## D. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 3

Coal Handling System

**Segment Description and Rate :** Segment 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Coal Transfer	
2. Source Classification Code (SCC) : 3-05-010-11	
3. SCC Units : Tons Processed	
4. Maximum Hourly Rate : 1,100.00	5. Maximum Annual Rate : 1,651,260.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment : Rated hourly capacity. Annual capacity limited by total that can be fired in the PC Boiler (plus additional coal sent to pile and reclaimed - See Appendix B).	



## D. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 3

Coal Handling System

**Segment Description and Rate :** Segment 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Coal Crushing	
2. Source Classification Code (SCC) : 3-05-010-17	
3. SCC Units : Tons Processed	
4. Maximum Hourly Rate : 600.00	5. Maximum Annual Rate : 1,270,200.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment : Rated hourly capacity. Annual capacity limited by total that can be fired in the PC Boiler.	

## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      3

Coal Handling System

**Pollutant Potential/Estimated Emissions :**      Pollutant 1

1. Pollutant Emitted :	PM		
2. Total Percent Efficiency of Control :	99.00	%	
3. Primary Control Device Code :	018		
4. Secondary Control Device Code :	054		
5. Potential Emissions :	3.46	lb/hour	15.09      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:	1		
	1.00	to	5.00      tons/year
8. Emissions Factor :	0.01		
Units :	gr/acf		
Reference :	Permit limit		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	<p style="margin-left: 40px;">Potential Emissions listed in Line 5 calculated from the 4 emission points. Calculated based on rated airflow times 0.01 grains/acf. See Table 4-6 of text.                  Pound/hr and ton/yr emission rates are estimates only and should not be considered permit limits.</p>		
11. Pollutant Potential/Estimated Emissions Comment :	<p style="margin-left: 40px;">Potential emissions listed in Line 5 from the 4 emission points. Fugitive emissions listed in line 7</p>		

from fugitive coal-handling activities plant wide, as estimated in Appendix B of the text. Range is 1 to 5 times the pollutant-specific reporting threshold (5 to 25 tons/year).

III. Part 9a - 248

DEP Form No. 62-210.900(1) - Form

## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      3

Coal Handling System

**Pollutant Potential/Estimated Emissions :**      Pollutant      2

1. Pollutant Emitted :	PM10		
2. Total Percent Efficiency of Control :	99.00	%	
3. Primary Control Device Code :	018		
4. Secondary Control Device Code :	054		
5. Potential Emissions :	3.46	lb/hour	15.09 tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:	1		
	1.00	to 5.00	tons/year
8. Emissions Factor :	0.01		
Units :	gr/acf		
Reference :	Permit limit		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	<p>Potential Emissions in Line 5 caclulated from the 4 emission points. Calculated based on rated airflow times 0.01 grains/acf. See Table 4-6 in text.                      Pound/hr and ton/yr emission rates are estimates only and should not be considered permit limits.</p>		
11. Pollutant Potential/Estimated Emissions Comment :	<p>Potential emissions listed in Line 5 from the 4 emission points. Fugitive emissions in Line 7 from</p>		

fugitive coal handling activities plant-wide, as estimated in Appendix B of text. Range is 1 to 5 times the pollutant-specific reporting threshold (5 to 25 tons/year).

## F. VISIBLE EMISSIONS INFORMATION

Emissions Unit Information Section 3

**Visible Emissions Limitation :** Visible Emissions Limitation 1

1. Visible Emissions Subtype :	VE
2. Basis for Allowable Opacity :	RULE
3. Requested Allowable Opacity :	
	Normal Conditions : %
	Exceptional Conditions : %
	Maximum Period of Excess Opacity Allowed : min/hour
4. Method of Compliance :	
	Annual Visible Emissions testing per permit PSD-FL-168
5. Visible Emissions Comment :	
	Visible emissions testing (5% opacity or less) to demonstrate compliance with 0.01 gr/acf requirement per permit PSD-FL-168. Visible emissions >5% will not create a presumption that the 0.01 gr/acf limit is being violated.

## F. VISIBLE EMISSIONS INFORMATION

Emissions Unit Information Section 3

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

1. Visible Emissions Subtype :	VEF
2. Basis for Allowable Opacity :	RULE
3. Requested Allowable Opacity :	
	Normal Conditions : %
	Exceptional Conditions : %
	Maximum Period of Excess Opacity Allowed : min/hour
4. Method of Compliance :	
	Material handling practices per permit PSD-FL-168
5. Visible Emissions Comment :	
	Permit PSD-FL-168 lists practices to maintain opacity less than or equal to 5 percent. An opacity of 20% is allowed when adding, moving, or removing coal from the coal pile.

## H. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 3

Coal Handling System

### PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

- The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.



2. Increment Consuming for Nitrogen Dioxide?

- ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
  
- ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
  
- ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
  
- ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
  
- ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM :	C	
SO2 :		
NO2 :		
4. Baseline Emissions :		
PM :	0.0000 lb/hour	0.0000 tons/year
SO2 :	0.0000 lb/hour	0.0000 tons/year
NO2 :		0.0000 tons/year
5. PSD Comment :		
Part of PSD application PSD-FL-168. No SO2 or NO2 emissions from this emissions unit.		



## I. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 3

Coal Handling System

### Supplemental Requirements for All Applications

1. Process Flow Diagram :	19
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	20
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	3/96
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	NA
9. Other Information Required by Rule or Statue :	NA

### Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :	NA
11. Alternative Modes of Operation (Emissions Trading) :	NA
12. Enhanced Monitoring Plan :	NA

III. Part 13 - 5

DEP Form No. 62-210.900(1) - Form

13. Identification of Additional Applicable Requirements :		NA
14. Acid Rain Application (Hard-copy Required) :		
NA	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))	
NA	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)	
NA	New Unit Exemption (Form No. 62-210.900(1)(a)2.)	
NA	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)	

### III. EMISSIONS UNIT INFORMATION

#### A. GENERAL EMISSIONS UNIT INFORMATION

**Emissions Unit Information Section**

4

Ash Handling System

**Type of Emissions Unit Addressed in This Section**

- ] 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, an individually-regulated emission point (stack or vent) serving a single process or production unit, or activity, which also has other individually-regulated emission points.
  
- ] This Emissions Unit Information Section addresses, as a single emissions unit, a collectively-regulated 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 only.
  
- ] 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.

**Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section :  Ash Handling System		
2. ARMS Identification Number : 005		
3. Emissions Unit Status Code :	4. Acid Rain Unit?	5. Emissions Unit Major Group SIC Code :
A	N	49
6. Initial Startup Date : 01-Jul-1995		
7. Long-term Reserve Shutdown Date :		
8. Package Unit :  Manufacturer : Model Number :		
9. Generator Nameplate Rating : MW		
10. Incinerator Information :  Dwell Temperature : °F Dwell Time : seconds Incinerator Afterburner Temperature : °F		
11. Emissions Unit Comment :  Ash Handling System		

**Emissions Unit Information Section** 4

**Emissions Unit Control Equipment** 1

1. Description :

Flyash handling system enclosed

2. Control Device or Method Code : 54

**Emissions Unit Information Section** 4

**Emissions Unit Control Equipment** 2

1. Description :

Separator on Flyash Silo prior to fabric filter baghouse

2. Control Device or Method Code : 53



**Emissions Unit Information Section** 4

**Emissions Unit Control Equipment** 3

1. Description :	
Fabric Filter on Flyash Silo	
2. Control Device or Method Code :	18

**Emissions Unit Information Section**

4

Ash Handling System

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate :	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	250	
	Units :	tons per hour
4. Maximum Production Rate :		
	Units :	
5. Operating Capacity Comment :	The ash handling system is comprised of different conveying and storage units. The overall maximum throughput rate is 250 tons per hour.	

**Emissions Unit Information Section**

4

Ash Handling System

**Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule :

24 hours/day

7 days/week

52 weeks/year

8760 hours/year

## B. EMISSIONS UNIT REGULATIONS

Emissions Unit Information Section 4

Ash Handling System

### Rule Applicability Analysis

Not Applicable

## B. EMISSIONS UNIT REGULATIONS

**Emissions Unit Information Section** 4

Ash Handling System

### **List of Applicable Regulations**

Facility-wide regulations only

### C. EMISSION POINT (STACK/VENT) INFORMATION

**Emissions Unit Information Section**

4

Ash Handling System

**Emission Point Description and Type :**

1. Identification of Point on Plot Plan or Flow Diagram :	04
2. Emission Point Type Code :	1
3. Descriptions of Emission Points Comprising this Emissions Unit :	Ash Storage Silo Vent filter on top of Ash Storage Silo
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	005 Ash Handling System
5. Discharge Type Code :	H
6. Stack Height :	175 feet
7. Exit Diameter :	3.0 feet
8. Exit Temperature :	150 °F
9. Actual Volumetric Flow Rate :	13600 acfm
10. Percent Water Vapor :	5.00 %
11. Maximum Dry Standard Flow Rate :	dscfm
12. Nonstack Emission Point Height :	feet
13. Emission Point UTM Coordinates :	
Zone :	East (km) :
	North (km) :
14. Emission Point Comment :	
	Exhaust flow rate, moisture content estimated only. Emissions are calculated based on grains/acf; therefore dscfm estimate is not necessary.

## D. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 4

Ash Handling System

**Segment Description and Rate :** Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Ash Handling and transport	
2. Source Classification Code (SCC) : 3-05-101-99	
3. SCC Units : Tons Processed	
4. Maximum Hourly Rate : 250.00	5. Maximum Annual Rate : 224,600.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment : Ash from PC Boiler is processed and loaded into trucks and railcars. Tons/hour process rate estimated from equipment rating. Tons/year process rate estimated from maximum coal firing in PC Boiler, as calculated in Appendix B.	

## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      4

Ash Handling System

**Pollutant Potential/Estimated Emissions :**      Pollutant      1

1. Pollutant Emitted :	PM		
2. Total Percent Efficiency of Control :	99.00	%	
3. Primary Control Device Code :	018		
4. Secondary Control Device Code :	054		
5. Potential Emissions :	1.17	lb/hour	5.11      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:	1		
	1.00	to	5.00      tons/year
8. Emissions Factor :	0.01		
Units :	gr/acf		
Reference :	Permit limit		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	<p>Emissions from Ash Silo Vent calculated based on estimated airflow times 0.01 grains/acf, as shown in Table 4-6 in text. Fugitive emissions from flyash and bottom ash handling plant wide per AP-42 factors, included in Line 7 only (Calculations in Appendix B).                      Pound/hr and ton/yr emission rates are estimates only and should not be considered permit limits.</p>		
11. Pollutant Potential/Estimated Emissions Comment :			



Line 5 shows estimated emissions from ash silo vent. Fugitive emissions in Line 7 from flyash and bottom ash handling plant-wide. Range of fugitive emissions is 1 to 5 times the pollutant-specific reporting threshold (5 to 25 ton/year).

## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      4

Ash Handling System

**Pollutant Potential/Estimated Emissions :**      Pollutant      2

1. Pollutant Emitted :	PM10		
2. Total Percent Efficiency of Control :	99.00	%	
3. Primary Control Device Code :	018		
4. Secondary Control Device Code :	054		
5. Potential Emissions :	1.17	lb/hour	5.11      tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:	1.00	to	5.00      tons/year
8. Emissions Factor :	0.01		
Units :	grains/acf		
Reference :	Permit PSD-FL-168		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	<p>Emissions from Ash Silo Vent calculated based on estimated airflow times 0.01 grains/acf, as shown in Table 4-6 in text. Fugitive emissions from flyash and bottom ash handling plant wide per AP-42 factors, included in Line 7 only (Calculations in Appendix B).  Pound/hr and ton/yr emission rates are estimates only and should not be considered permit limits.</p>		
11. Pollutant Potential/Estimated Emissions Comment :			

Line 5 shows estimated emissions from ash silo vent. Fugitive emissions in Line 7 from flyash and bottom ash handling plant-wide. Range of fugitive emissions is 1 to 5 times the pollutant-specific reporting threshold (5 to 25 ton/year).

III. Part 9a - 454

DEP Form No. 62-210.900(1) - Form

## F. VISIBLE EMISSIONS INFORMATION

Emissions Unit Information Section 4

**Visible Emissions Limitation :** Visible Emissions Limitation 1

1. Visible Emissions Subtype :	VE
2. Basis for Allowable Opacity :	RULE
3. Requested Allowable Opacity :	
	Normal Conditions : %
	Exceptional Conditions : %
	Maximum Period of Excess Opacity Allowed : min/hour
4. Method of Compliance :	
	Annual visible emissions testing per permit PSD-FL-168.
5. Visible Emissions Comment :	
	Visible emissions testing (5% opacity or less) to demonstrate compliance with 0.01 gr/acf requirement per permit PSD-FL-168. Visible emissions >5% will not create a presumption that the 0.01 gr/acf limit is being violated.

## F. VISIBLE EMISSIONS INFORMATION

Emissions Unit Information Section 4

Visible Emissions Limitation : Visible Emissions Limitation 2

1. Visible Emissions Subtype :	VEF
2. Basis for Allowable Opacity :	RULE
3. Requested Allowable Opacity :	
	Normal Conditions : %
	Exceptional Conditions : %
Maximum Period of Excess Opacity Allowed :	min/hour
4. Method of Compliance :	
	Material handling practices per PSD-FL-168
5. Visible Emissions Comment :	
	Fugitive emissions from material handling and road dust. Permit PSD-FL-168 lists practices to maintain opacity less than or equal to 5 percent.

## H. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

### Emissions Unit Information Section 4

Ash Handling System

#### PSD Increment Consumption Determination

##### 1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

- The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

- ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM :	C	
SO2 :		
NO2 :		
4. Baseline Emissions :		
PM :	0.0000 lb/hour	0.0000 tons/year
SO2 :	0.0000 lb/hour	0.0000 tons/year
NO2 :		0.0000 tons/year
5. PSD Comment :		
Part of permit PSD-FL-168. This emission unit does not emit SO2 or NO2.		





## I. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 4

Ash Handling System

### Supplemental Requirements for All Applications

1. Process Flow Diagram :	21
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	22
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	3/96
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	NA
9. Other Information Required by Rule or Statue :	NA

### Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :	NA
11. Alternative Modes of Operation (Emissions Trading) :	NA
12. Enhanced Monitoring Plan :	NA

III. Part 13 - 7

DEP Form No. 62-210.900(1) - Form

13. Identification of Additional Applicable Requirements :	NA
14. Acid Rain Application (Hard-copy Required) :	
NA	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
NA	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
NA	New Unit Exemption (Form No. 62-210.900(1)(a)2.)
NA	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

### III. EMISSIONS UNIT INFORMATION

#### A. GENERAL EMISSIONS UNIT INFORMATION

Emissions Unit Information Section 5

Lime Handling System

**Type of Emissions Unit Addressed in This Section**

- ] 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, an individually-regulated emission point (stack or vent) serving a single process or production unit, or activity, which also has other individually-regulated emission points.
  
- ] This Emissions Unit Information Section addresses, as a single emissions unit, a collectively-regulated 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 only.
  
- ] 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.

**Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section :  Lime Handling System		
2. ARMS Identification Number : 006		
3. Emissions Unit Status Code :  A	4. Acid Rain Unit?  N	5. Emissions Unit Major Group SIC Code :  49
6. Initial Startup Date : 01-May-1995		
7. Long-term Reserve Shutdown Date :		
8. Package Unit :  Manufacturer : Model Number :		
9. Generator Nameplate Rating : MW		
10. Incinerator Information :  Dwell Temperature : °F Dwell Time : seconds Incinerator Afterburner Temperature : °F		
11. Emissions Unit Comment :  Lime arrives in powdered form. Lime silo has bin vent filter. Lime is slaked into a slurry for use in the PC boiler spray dryer absorber. Some fugitive emissions of lime will occur.		

**Emissions Unit Information Section** 5

**Emissions Unit Control Equipment** 1

1. Description :

Fabric Filter Baghouse

2. Control Device or Method Code : 18

**Emissions Unit Information Section**            5

**Emissions Unit Control Equipment**            2

1. Description :

Lime handling system is enclosed to the extent practical.

2. Control Device or Method Code :            54

Lime Handling System

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate :	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	Units :	
4. Maximum Production Rate :	25	
	Units :	tons/hour
5. Operating Capacity Comment :	The lime handling system is comprised of different conveying and storage units. The overall capacity is 25 tons per hour.	

**Emissions Unit Information Section**

5

Lime Handling System

**Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule :

24 hours/day

7 days/week

52 weeks/year

8760 hours/year



## B. EMISSIONS UNIT REGULATIONS

Emissions Unit Information Section 5

Lime Handling System

### **Rule Applicability Analysis**

Not Applicable

## B. EMISSIONS UNIT REGULATIONS

**Emissions Unit Information Section** 5

Lime Handling System

### **List of Applicable Regulations**

Facility-wide regulations only

### C. EMISSION POINT (STACK/VENT) INFORMATION

**Emissions Unit Information Section**

5

Lime Handling System

**Emission Point Description and Type :**

1. Identification of Point on Plot Plan or Flow Diagram :	05
2. Emission Point Type Code :	1
3. Descriptions of Emission Points Comprising this Emissions Unit :	Bin vent filter on lime silo, and fugitive emissions from lime handling and road dust plant-wide
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	006 Limestone Handling System
5. Discharge Type Code :	H
6. Stack Height :	55 feet
7. Exit Diameter :	1.0 feet
8. Exit Temperature :	77 °F
9. Actual Volumetric Flow Rate :	1200 acfm
10. Percent Water Vapor :	5.00 %
11. Maximum Dry Standard Flow Rate :	dscfm
12. Nonstack Emission Point Height :	feet
13. Emission Point UTM Coordinates :	Zone : East (km) : North (km) :
14. Emission Point Comment :	Emissions are estimated based on actual airflow times 0.01 grains/acf. Therefore, dscfm is not necessary.

## D. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 5

Lime Handling System

**Segment Description and Rate :** Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Limestone Handling and Storage	
2. Source Classification Code (SCC) : 3-05-016-13	
3. SCC Units : Tons Processed	
4. Maximum Hourly Rate : 25.00	5. Maximum Annual Rate : 66,781.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment : Maximum hourly rate estimated based on lime unloading procedure. Maximum annual rate estimated based on maximum coal firing in PC boiler, maximum sulfur content, and 50% excess lime use, as calculated in Appendix B.	

## E. POLLUTANT INFORMATION

**Emissions Unit Information Section**      5

Lime Handling System

**Pollutant Potential/Estimated Emissions :**      Pollutant 1

1. Pollutant Emitted :	PM		
2. Total Percent Efficiency of Control :	99.00	%	
3. Primary Control Device Code :	018		
4. Secondary Control Device Code :			
5. Potential Emissions :	0.10	lb/hour	0.45 tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:	1		
	1.00	to	5.00 tons/year
8. Emissions Factor :	0.01		
Units :	gr/acf		
Reference :	Permit limit		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	<p>Emissions from Lime Silo Vent calculated based on estimated airflow times 0.01 grains/acf, as shown in Table 4-6 in text. Fugitive emissions from flyash and bottom ash handling plant wide per AP-42 factors, included in Line 7 only (Calculations in Appendix B).                      Pound/hr and ton/yr emission rates are estimates only and should not be considered permit limits.</p>		
11. Pollutant Potential/Estimated Emissions Comment :			

Potential emissions listed in Line 5 from the lime silo vent. Fugitive emissions listed in line 7 from fugitive lime-handling activities plant wide, and road dust, as estimated in Appendix B of the text. Range is 1 to 5 times the pollutant-specific reporting threshold (5 to 25 tons/year).

## E. POLLUTANT INFORMATION

Emissions Unit Information Section 5

Lime Handling System

**Pollutant Potential/Estimated Emissions :** Pollutant 2

1. Pollutant Emitted :	PM10		
2. Total Percent Efficiency of Control :	99.00	%	
3. Primary Control Device Code :	018		
4. Secondary Control Device Code :	054		
5. Potential Emissions :	0.10	lb/hour	0.45 tons/year
6. Synthetically Limited?	N		
7. Range of Estimated Fugitive/Other Emissions:	1		
	1.00	to 5.00	tons/year
8. Emissions Factor :	0.01		
Units :	gr/acf		
Reference :	Permit limit		
9. Emissions Method Code :	5		
10. Calculations of Emissions :	<p>Emissions from Lime Silo Vent calculated based on estimated airflow times 0.01 grains/acf, as shown in Table 4-6 in text. Fugitive emissions from flyash and bottom ash handling plant wide per AP-42 factors, included in Line 7 only (Calculations in Appendix B).                      Pound/hr and ton/yr emission rates are estimates only and should not be considered permit limits.</p>		
11. Pollutant Potential/Estimated Emissions Comment :			

Potential emissions listed in Line 5 from the lime silo vent. Fugitive emissions listed in line 7 from fugitive lime-handling activities plant wide, and road dust, as estimated in Appendix B of the text. Range is 1 to 5 times the pollutant-specific reporting threshold (5 to 25 tons/year).

III. Part 9a - 458

DEP Form No. 62-210.900(1) - Form





## F. VISIBLE EMISSIONS INFORMATION

Emissions Unit Information Section 5

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	VE
2. Basis for Allowable Opacity :	RULE
3. Requested Allowable Opacity :	
	Normal Conditions : %
	Exceptional Conditions : %
	Maximum Period of Excess Opacity Allowed : min/hour
4. Method of Compliance :	
	Annual visible emissions testing per PSD-FL-168
5. Visible Emissions Comment :	
	Emissions from lime silo vent. Visible emissions testing (5% opacity or less) to demonstrate compliance with 0.01 gr/acf requirement per permit PSD-FL-168. Visible emissions >5% will not create a presumption that the 0.01 gr/acf limit is being violated.

## F. VISIBLE EMISSIONS INFORMATION

Emissions Unit Information Section 5

Visible Emissions Limitation : Visible Emissions Limitation 2

1. Visible Emissions Subtype :	VEF
2. Basis for Allowable Opacity :	RULE
3. Requested Allowable Opacity :	
	Normal Conditions : %
	Exceptional Conditions : %
	Maximum Period of Excess Opacity Allowed : min/hour
4. Method of Compliance :	
	Material handling practices per PSD-FL-168
5. Visible Emissions Comment :	
	Fugitive emissions from lime handling and road dust plant-wide. Fugitive emissions from material handling and road dust. Permit PSD-FL-168 lists practices to maintain opacity less than or equal to 5 percent.

## H. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

### Emissions Unit Information Section 5

Lime Handling System

#### PSD Increment Consumption Determination

##### 1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

- The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

- The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :

PM : C  
SO2 :  
NO2 :

4. Baseline Emissions :

PM :	0.0000 lb/hour	0.0000 tons/year
SO2 :	0.0000 lb/hour	0.0000 tons/year
NO2 :		0.0000 tons/year

5. PSD Comment :

Part of permit PSD-FL-168. This emissions unit does not produce SO2 or NO2.



## I. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 5

Lime Handling System

### **Supplemental Requirements for All Applications**

1. Process Flow Diagram :	23
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	24
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	3/96
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	NA
9. Other Information Required by Rule or Statue :	NA

### **Additional Supplemental Requirements for Category I Applications Only**

10. Alternative Methods of Operations :	NA
11. Alternative Modes of Operation (Emissions Trading) :	NA
12. Enhanced Monitoring Plan :	NA

13. Identification of Additional Applicable Requirements :	NA
14. Acid Rain Application (Hard-copy Required) :	
NA	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
NA	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
NA	New Unit Exemption (Form No. 62-210.900(1)(a)2.)
NA	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)



**Appendix B**

---

**Support Calculations For Insignificant Activity  
and Material Handling Emissions**

Indiantown Cogeneration  
Attachment Document ID #01  
Exceptions to Professional Engineer Certification

Because of the relatively small amount of operating experience at the plant, little Continuous Emissions Monitoring (CEM) operating or reporting data has been generated, and the CEM certification has not yet been approved by the Department. The plant warrantee process procedure is still in progress, and there are CEM punch list items still to be completed. Therefore, I cannot yet certify whether the CEM equipment and procedures comply with applicable requirements.

Indiantown List of Proposed Exempt Activities

<u>Emission Source</u>	<u>Size</u>	<u>Loc- ation</u>	<u>Reason for Exemption</u>	<u>Specific Exclusion</u>	<u>Calcs Attached?</u>
<b><i>Emissions from Tanks and Silos:</i></b>					
Hypochlorite Tank	3,500 gal	Raw Water	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Sulfuric Acid Tank	5,000 gal	Demin	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Sodium Hydroxide Tank	5,000 gal	Demin	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Ferric Sulfate Tank	6,400 gal	Raw Water	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Sulfuric Acid Tank	4,000 gal	Cooling Tower	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Hypochlorite Tank	10,000 gal	Cooling Tower	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Sulfuric Acid Tank	1,500 gal	Raw Water	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Main Turbine Oil Tank	6,400 gal	Boiler bldg	Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Dirty Turbine Oil Tank	10,000 gal	Boiler bldg	Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Diesel Fuel Tank	1,000 gal	Coal Yard	Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Aqueous Ammonia Tank	30,000 gal	Bag House	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Waste Oil Tank	650 gal	Ware-house	Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes

Indiantown List of Proposed Exempt Activities

<u>Emission Source</u>	<u>Size</u>	<u>Loc- ation</u>	<u>Reason for Exemption</u>	<u>Specific Exclusion</u>	<u>Calcs Attached?</u>
Opti-Meen Tank	300 gal	Boiler bldg	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Optizeen Tank	300 gal	Boiler bldg	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Ferrosperse Tank	300 gal	Boiler bldg	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Calcium Chloride Tank	1,000 gal	Demin	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Calcium Sulfate Tank	1,000 gal	Demin	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Unleaded Gasoline Tank	250 gal	Coal Yard	Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Diesel Tank for Fire Pump	250 gal	CP Intake	Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Propane Tank 1	60000 gal		Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Propane Tank 2	60000 gal		Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Water Treatment Lime Silo			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Water Treatment Soda Ash Silo			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Tanks Storing Water	various	various	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	

Indiantown List of Proposed Exempt Activities

<u>Emission Source</u>	<u>Size</u>	<u>Location</u>	<u>Reason for Exemption</u>	<u>Specific Exclusion</u>	<u>Calcs Attached?</u>
Ion Exchange Tanks	various	various	Trivial per DARM-PER/V-15, Att. A	"Demineralized water tanks & demineralizer vents"	
Fiberglass Foamrol Tank			Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Chemical Totes and Small Tanks Plant-wide	various	various	Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Transformer Oil Storage			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
<b>Combustion Sources:</b>					
Diesel Fire Pump	263 HP	CP Intake	Proposed exempt per 62-210.300 (3)	Exempt from permitting: "(v) fire and safety equipment"	
Propane Vaporizer			Trivial (Electric, no emissions)		
Portable Space Heaters			Proposed exempt per 62-210.300 (3)	Exempt from permitting: "(l) Equipment used exclusively for space heating, other than boilers."	
Mobile Equipment			Trivial per DARM-PER/V-15, Att. A	"Combustion emissions from propulsion of mobile sources"	
<b>Steam and Safety Vent Emissions:</b>					
Steam Air Ejector Pump			Trivial per DARM-PER/V-15, Att. A	"Steam vents and safety relief valves," "Steam Leaks"	
Steam Condenser System			Trivial per DARM-PER/V-15, Att. A	"Steam vents and safety relief valves," "Steam Leaks"	
Evaporators			Trivial per DARM-PER/V-15, Att. A	"Steam vents and safety relief valves," "Steam Leaks"	
Reboiler Vent			Trivial per DARM-PER/V-15, Att. A	"Steam vents and safety relief valves," "Steam Leaks"	
Ash and Lime Handling Systems Pressure/ Vacuum Relief Valves			Trivial per DARM-PER/V-15, Att. A	"Steam vents and safety relief valves"	

Indiantown List of Proposed Exempt Activities

<u>Emission Source</u>	<u>Size</u>	<u>Loc- ation</u>	<u>Reason for Exemption</u>	<u>Specific Exclusion</u>	<u>Calcs Attached?</u>
Other Process and Safety Vents Plant-wide			Trivial per DARM-PER/V-15, Att. A	"Steam vents and safety relief valves," "Steam Leaks"	
<b>Maintenance Activities:</b>					
Parts Washer			Proposed exempt per 62-210.300 (3)	Exempt from permitting: "(x) Degreasing units using heavier-than-air vapors exclusively, except any such unit using HAP."	
Aerosol Can Use/Disposal			Trivial per DARM-PER/V-15, Att. A	"Plant maintenance and upkeep activities," "Repair or maintenance shop activities"	
Glove Box			Trivial per DARM-PER/V-15, Att. A	"Plant maintenance and upkeep activities," "Repair or maintenance shop activities"	
Welding Operations			Trivial per DARM-PER/V-15, Att. A	"Plant maintenance and upkeep activities," "Repair or maintenance shop activities"	
Metalworking Operations			Trivial per DARM-PER/V-15, Att. A	"Plant maintenance and upkeep activities," "Repair or maintenance shop activities"	
Transformer Maintenance			Trivial per DARM-PER/V-15, Att. A	"Plant maintenance and upkeep activities," "Repair or maintenance shop activities"	
Landscaping/ Architectural Coatings/ Facility Upkeep	(includes street sweeping)		Trivial per DARM-PER/V-15, Att. A	"Plant maintenance and upkeep activities"	
<b>Other processes:</b>					
Hydrogen from Turbine Seal			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
CEMS Cylinder Use			Trivial per DARM-PER/V-15, Att. A	"Vents from CEMS and other analyzers"	
Other Gas Cylinder Use			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Oil Water Separator			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Office Activities			Trivial per DARM-PER/V-15, Att. A	"Consumer use of office equipment and products"	

Indiantown List of Proposed Exempt Activities

<u>Emission Source</u>	<u>Size</u>	<u>Loc- ation</u>	<u>Reason for Exemption</u>	<u>Specific Exclusion</u>	<u>Calcs Attached?</u>
Bench-scale Lab equipment			Trivial per DARM-PER/V-15, Att. A	"Bench-scale laboratory equipment used for physical or chemical analysis, but not lab hoods or vents"	
Lab fume hoods			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Transfer of Calcium Chloride Bags			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Road Dust			[Counted as emissions source - listed under coal, lime, ash handling systems]		
Filter Press			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Lube Oil Vent			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Seal Oil Vent			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Cooling Tower			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Air Compressors			Trivial per DARM-PER/V-15, Att. A	"Air compressors and pneumatically operated equipment, including hand tools"	
Building Exhaust Fans			Trivial per DARM-PER/V-15, Att. A	"Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manufacturing/ industrial or commercial process"	
Waste Sumps and Runoff Ponds			Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Kitchen Vents			Trivial per DARM-PER/V-15, Att. A	"Non-commercial food preparation"	
Sewer Vents			Trivial per DARM-PER/V-15, Att. A	"Bathroom/ toilet vent emissions"	
Coal Additives			Trivial (no emissions)		

Potential Annual Emissions from Tanks											
TANK ID	D Diameter (ft)	Hs Height (ft)	Hi Liquid Height (ft)	Temp(°F) = Material Stored	74.6 MW (lb/lbmol)	(°F) VP (mm Hg)	Volume (gal)	Throughput (gal)	Working Emissions (lb/yr)	Le Breathing Emissions (lb/yr)	Total Emissions (lb/yr)
main turbine oil tank	8.2	16.3	8.2	turbine oil	130.00	0.38	6,400	64,000	1.44	1.98	3.42
dirty turbine oil tank	9.5	19.0	9.5	used oil	130.00	0.38	10,000	100,000	2.24	3.09	5.34
diesel fuel tank	4.4	8.8	4.4	#2 fuel oil	130.00	0.38	1,000	10,000	0.22	0.31	0.53
waste oil tank	3.8	7.6	3.8	used oil	130.00	0.38	650	6,500	0.15	0.20	0.35
unleaded gasoline tank	2.8	5.5	2.8	gasoline	130.00	181.0	250	2,500	26.53	12.41	38.94
diesel tank for fire pump	2.8	5.5	2.8	#2 fuel oil	130.00	0.38	250	1,912	0.04	0.08	0.12
chem tote(s) - 15	2.8	5.5	2.8	misc Betz chems	60.00	2.59	250	7,500	0.52	0.24	0.77
oil/water separator	2.8	5.5	2.8	oil water mix	130.00	0.38	250	2,500	0.06	0.08	0.13
transformer oil storage	4.4	8.8	4.4	trans oil	130.00	0.38	1,000	15,000	0.34	0.31	0.65
									<b>30.62</b>	<b>18.08</b>	<b>48.70</b>



Insignificant Emissions Calculations  
Dust from Water Treatment Silos

Water Treatment Lime Silo					
			PM-30	PM-10	
particle size multiplier	k		0.74	0.35	
mean wind speed	U	miles/hour	12	12	(outdoors)
material moisture content	M	%	2	2	high moisture
Emission factor		E lb/ton/drop	0.0074	0.0035	
Amount dropped in silo		ton/yr	1000	1000	
Number of times dropped			1	1	
Emissions		pounds/year	7	3	
Emissions (uncontrolled)		tons/year	0.003695	0.001748	
Emissions (controlled)		tons/yr	3.7E-05	1.75E-05	
Assumes 99% control					
Water Treatment Soda Ash Silo					
			PM-30	PM-10	
particle size multiplier	k		0.74	0.35	
mean wind speed	U	miles/hour	12	12	(outdoors)
material moisture content	M	%	2	2	high moisture
Emission factor		E lb/ton/drop	0.0074	0.0035	
Amount dropped in silo		ton/yr	1000	1000	
Number of times dropped			1	1	
Emissions		pounds/year	7	3	
Emissions (uncontrolled)		tons/year	0.003695	0.001748	
Emissions (controlled)		tons/yr	3.7E-05	1.75E-05	
Assumes 99% control					

Indiantown Gnerating Plant						
Vent Emissions Calculations						
Vent	Chemical	Max Conc (mg/ACF)	Flow Rate (ACFM)	Control Efficiency	Emissions (lb/yr)	Emissions (tpy)
Seal Oil Vent	seal oil	50	200.0	99%	116	0.06
Lube Oil Vent	lube oil	50	200.0	99%	116	0.06

Indiantown Insignificant Activity Calculations

<b>Indiantown Generating Station</b>		
<b>Calcium Chloride Emissions</b>		
Size	50	lb bag
Qty	2,000	bags/yr
Thruput	100,000	lbs/yr
<b>Estimated Emissions from CaCl<sub>2</sub> Addition</b>		
Est % Emitted	1%	
Est Emissions	1,000	lbs PM/yr
Est Emissions	0.50	tpy PM
<b>Filter Press Emissions</b>		
Thruput	100.00	tpd
% VOC	1%	
Est % Emitted	1%	
Est Emissions	3.65	tpy
<b>Hydrogen from Turbine Seal</b>		
Usage	2,000	scf/yr
E =	$\frac{= \text{usage} * P * n}{R * T}$	
E =	0.005	tpy
<b>Hydrogen from Other Gas Cylinders</b>		
Usage	1,000	scf/yr
E =	$\frac{= \text{usage} * P * n}{R * T}$	
E =	0.003	tpy
<b>Lab Chemical Usage</b>		
Acid Usage	2.00	gal/month
Base Usage	2.00	gal/month
Acid Density	9.99	lb/gal (assumed to be HCl)
Base Density	12.72	lb/gal (assumed to be NaOH)
<b>Assumed that All Acids and Bases Used are Emitted</b>		
<b>Emissions are Assumed to be PM<sub>10</sub></b>		
Acid Emissions	239.79	lb PM <sub>10</sub> /yr
Base Emissions	305.30	lb PM <sub>10</sub> /yr
Acid Emissions	0.12	tons PM <sub>10</sub> /yr
Base Emissions	0.15	tons PM <sub>10</sub> /yr

<b>COOLING TOWER PARTICULATE EMISSIONS</b>							
5.3	DRIFT RATE, GPM						
8.34	WEIGHT OF WATER, LB/GAL						
2652.12	DRIFT RATE, LB/HR OF WATER						
2800	ppm TOTAL DISSOLVED SOLIDS IN WATER - FROM GRAB SAMPLE						
7.4	LB/HR TDS RELEASED AS PART OF DRIFT						
<p>BASED ON TYPICAL MODEL RESULTS FOR OTHER FACILITIES USING THE SEASONAL/ANNUAL COOLING TOWER IMPACT MODEL (SACTI, EPRI 1984),</p>							
<p>DRIFT IS RELEASED AS WATER DROPLETS. BIG DROPS FALL OUT QUICKLY WITH MOST OF THE DRIFT MASS. SMALLER DROPS MAY BE CARRIED FARTHER FROM THE RELEASE POINT AND POSSIBLY EVAPORATE.</p>							
<p>THE DISSOLVED SOLIDS IN THE SMALLER DROPLETS COULD THEN DRY OUT AND BE RELEASED INTO THE ATMOSPHERE AS PARTICULATE.</p>							
<p>AT LEAST 90% OF THE DRIFT WILL DEPOSIT ON THE GROUND WITHIN 500 METERS. THEREFORE, WE CONSERVATIVELY ASSUME 10% OF THE TDS RELEASED AS PART OF THE DRIFT BECOMES ATMOSPHERIC PARTICULATE EMISSIONS (ie. TSP).</p>							
<p>FURTHERMORE, WE CONSERVATIVELY ASSUME ALL PARTICULATE EMISSIONS ARE PM-10.</p>							
10%	OF TDS IN COOLING TOWER DRIFT EMITTED AS PM-10						
0.7	LB/HR TSP/PM-10 EMISSIONS						
8760	HR/YEAR POTENTIAL OPERATION						
3.3	TON/YEAR POTENTIAL EMISSIONS OF TSP/PM-10						

Coal

Coal Drop Emissions					
Total coal that can be fired in PC Boiler:		1270200	tons/year		
Estimated percent stored on outdoor pile:		30%	of total coal use		
		381060	tons/year		
Coal Car Dump					
			PM-30	PM-10	
particle size multiplier	k		0.74	0.35	
mean wind speed	U	miles/hour	12	12	(outdoors)
material moisture content	M	%	6.9	6.9	Actual Average based on rec'd
Emission factor	E	lb/ton/drop	0.0013	0.0006	
Amount dropped		ton/yr	1270200	1270200	
Number of times dropped			1	1	
Emissions		pounds/year	1658	784	
Emissions (uncontrolled)		tons/year	0.83	0.39	
Emissions (controlled)		tons/year	0.83	0.39	
Coal Transfer - water spray					
			PM-30	PM-10	
particle size multiplier	k		0.74	0.35	
mean wind speed	U	miles/hour	5	5	(conservative estimate-indoor)
material moisture content	M	%	10	10	(estimate- water spray)
Emission factor	E	lb/ton/drop	0.0002	0.0001	
Amount dropped		ton/yr	1651260	1651260	
Number of times dropped			1	1	
Emissions		pounds/year	411	194	
Emissions (uncontrolled)		tons/year	0.205	0.097	
Emissions (controlled)		tons/year	0.205	0.097	

## Coal

<b>Emergency Stackout Conveyor</b>				
			PM-30	PM-10
particle size multiplier	k		0.74	0.35
mean wind speed	U	miles/hour	12	12
material moisture content	M	%	6.9	6.9
Emission factor	E	lb/ton/drop	0.0013	0.0006
Amount dropped		ton/yr	381060	381060
Number of times dropped			1	1
Emissions		pounds/year	497	235
Emissions (uncontrolled)		tons/year	0.249	0.118
Emissions (controlled)		tons/year	0.249	0.118
<b>Drop onto Outdoor Pile</b>				
			PM-30	PM-10
particle size multiplier	k		0.74	0.35
mean wind speed	U	miles/hour	12	12 (outdoors)
material moisture content	M	%	6.9	6.9
Emission factor	E	lb/ton/drop	0.0013	0.0006
Amount dropped		ton/yr	381060	381060
Number of times dropped			1	1
Emissions		pounds/year	497	235
Emissions (uncontrolled)		tons/year	0.249	0.118
Emissions (controlled)		tons/year	0.249	0.118
<b>Mag Chute</b>				
			PM-30	PM-10
particle size multiplier	k		0.74	0.35
mean wind speed	U	miles/hour	5	5
material moisture content	M	%	6.9	6.9
Emission factor	E	lb/ton/drop	0.0004	0.0002
Amount dropped		ton/yr	8760	8760
Number of times picked up			1	1
Emissions		pounds/year	3.66	1.73
Emissions (uncontrolled)		tons/year	0.00183	0.00087
Emissions (controlled)		tons/year	0.00183	0.00087

Coal

General Coal Material Handling Plant-Wide					
			PM-30	PM-10	
particle size multiplier	k		0.74	0.35	
mean wind speed	U	miles/hour	12	12	(outdoors)
material moisture content	M	%	6.9	6.9	
Emission factor	E	lb/ton/drop	0.0013	0.0006	
Amount dropped		ton/yr	17520	17520	(2 ton/hr conservative est.)
Number of times picked up			1	1	
Emissions		pounds/year	22.87	10.82	
Emissions (uncontrolled)		tons/year	0.01143	0.00541	
Emissions (controlled)		tons/year	0.01143	0.00541	
<b>Fugitive Particulate from Coal Pile Wind Erosion (see attached sheet)</b>					
			PM-30	PM-10	
		ton/year	7.09	3.55	
<b>Fugitive Particulate from road dust emissions (see attached sheet)</b>					
			PM-30	PM-10	
		ton/year	9.10	1.78	
<b>Total Coal Unloading &amp; Transfer</b>					
controlled		tons/yr	17.74	6.05	

## Ash

Ash Handling Fugitive Emissions				
<b>Bottom Ash</b>				
			PM-30	PM-10
particle size multiplier	k		0.74	0.35
mean wind speed	U	miles/hour	12	12
material moisture content	M	%	2	2
Emission factor		E lb/ton/drop	0.0074	0.0035
Amount dropped on pile		ton/yr	48922	48922
Number of times dropped			3	3
Emissions		pounds/year	1085	513
Emissions (uncontrolled)		tons/year	0.54	0.26
Emissions (controlled)		tons/yr	0.54	0.26
Assumes no control				
<i>Bottom ash is dropped once onto pile, handled as necessary and dropped into trucks</i>				
<i>Conservatively assume three drops total</i>				
<b>General Ash Material Handling Plant-Wide</b>				
			PM-30	PM-10
particle size multiplier	k		0.74	0.35
mean wind speed	U	miles/hour	12	12 (outdoors)
material moisture content	M	%	2	2
Emission factor		E lb/ton/drop	0.0074	0.0035
Amount dropped		ton/yr	17520	17520 (2 ton/hr conservative est.)
Number of times picked up			1	1
Emissions		pounds/year	129.48	61.24
Emissions (uncontrolled)		tons/year	0.065	0.031
Emissions (controlled)		tons/year	0.065	0.031
<b>Fugitive Particulate from road dust emissions (see attached sheet)</b>				
			PM-30	PM-10
		ton/year	19.04	3.72
<b>Total Ash Handling</b>				
controlled		tons/yr	19.65	4.00



Lime

Lime Handling Fugitive Emissions				
<b>Lime Slaker Input</b>				
<i>Note: Slaker is a sealed system. Conservatively assuming 1% fugitive leaks</i>				
			PM-30	PM-10
particle size multiplier	k		0.74	0.35
mean wind speed	U	miles/hour	12	12
material moisture content	M	%	2	2
Emission factor		E lb/ton/drop	0.0074	0.0035
Amount dropped		ton/yr	66781	66781
Number of times dropped			1	1
Emissions		pounds/year	494	233
Emissions (uncontrolled)		tons/year	0.25	0.12
Emissions (controlled)		tons/yr	0.002	0.001
Assumes 1% leaks				
<b>General Lime and related Material Handling Plant-Wide</b>				
			PM-30	PM-10
particle size multiplier	k		0.74	0.35
mean wind speed	U	miles/hour	12	12 (outdoors)
material moisture content	M	%	2	2
Emission factor		E lb/ton/drop	0.0074	0.0035
Amount dropped		ton/yr	17520	17520 (2 ton/hr conservative est.)
Number of times picked up			1	1
Emissions		pounds/year	129.48	61.24
Emissions (uncontrolled)		tons/year	0.065	0.031
Emissions (controlled)		tons/year	0.065	0.031
<b>Fugitive Particulate from road dust emissions (see attached sheet)</b>				
			PM-30	PM-10
		ton/year	16.82	3.28
<b>Total Lime Handling</b>				
controlled		tons/yr	16.88	3.31

Mat'l Use

INDIANTOWN COGENERATION							
MAXIMUM MATERIAL USAGE							
<b>COAL</b>							
3,422	MMBtu/hr max						
11,800	Btu/lb spec (minimum)						
		Based on 10.1 Table 2-1					
145	ton/hr max						
8,760	hr/yr						
1,270,200	ton/yr max						
23.6	MMBtu/ton						
Total	145 ton/hr						
<i>Maximum Potential Road Dust Calculations assume coal delivery by truck</i>							
<i>Coal Truck Delivery will only take place during emergencies such as rail strikes</i>							
	2 week/yr	Maximum expected period of coal delivery					
Capacity	25 ton/truck						
	5.80 truck/hr						
	139 truck/day						
	1949 truck/yr						
average	5.3 truck/day						
<b>Lime (CaO)</b>							
Coal Use	145 ton/hr						
Max %S	2.0%						
Max S	2.90 ton/hr						
<i>Assume all sulfur converted to CaSO3</i>							
Excess CaO	50%	lime use in excess of stoichiometric					
MW S	32						
MW CaO	56.08						
Stoich. CaO	5.08						
Max CaO	7.62 ton/hr						
	66,781 ton/yr						
Capacity	25 ton/truck						
	0.30 truck/hr						
CaO	7.32 truck/day						

Mat'l Use

<b>Ash</b>							
<i>Assume ash is the total of the ash content of the coal burned, the CaSO3 generated, and the excess CaO.</i>							
Ash in coal	10%	max					
Max coal	145	ton/hr					
Max ash from coal	14.5	ton/hr					
MW CaSO3	120.08						
Max CaSO3	10.88	ton/hr					
Excess CaO	2.54	ton/hr					
Max total ash	27.92	ton/hr					
	244,609	ton/yr					
Flyash	80%	of total					
	22.34	ton/hr					
	195,687	ton/yr					
Capacity	25	ton/truck					
	0.89	truck/hr					
Flyash	21.45	truck/day					
Bottom Ash	20%	of total					
	5.58	ton/hr					
	48,922	ton/yr					
Capacity	25	ton/truck					
	0.22	truck/hr					
Bottom Ash	5.36	truck/day					

Indiantown																					
Aggregate Coal Storage Pile																					
Industrial Wind Erosion		Using EPA AP-42 Section 13.2, rev 1/95																			
Surface Area	A1	12,548	m2	footprint																	
	A1	4,362	m2	side surface areas	ave height 30 ft																
	A1	16,911	m2	total surface area	ave height 30ft																
	S	16,911	m2	urface area																	
E = k * sumPi																					
particle size multiplier (30u	k	1.00																			
particle size multiplier (< 10u	k	0.50																			
Pi = erosion potential corresponding to the probable fast mile of wind for the ith period between disturbances (g/m2)																					
P = 58(u*-ut*)^2 + 25(u*-ut*)																					
P = 0 for u* <= ut																					
u* = frictional velocity	1.24	m/s																			
ut = threshold velocity	1.12	m/s																			
u10+ = 1.05u7+																					
u* = 0.053 u10+																					
u10+ = fastest mile of reference anemometer for period between disturbances (m/s)																					
u10+ =	23.31	m/s																			
u7+ =	22.20	m/s	source Table 4-1 EPA Rapid Assessment of Exposure to Particulate Emissions (u7+ for Jacksonville,FL																		
u* =	1.24	m/s																			
	30um		< 10um																		
P =	3.66	g/m2	3.66																		
umber of disturbances per y																					
	104		104	(Conservative assumption: pile is turned over twice/week)																	
E =	380.49	g/m2/yr	190.24																		
emissions =																					
	6434269	g/yr	3217135																		
	14185	lb/yr	7092																		
	7.09	ton/yr	3.55																		
	1.62	lb/hr	0.81																		

PAVED ROAD CALCULATIONS			TRUCKS									
PM-10			Coal	Coal	Flyash	Flyash	Bottom As	Bottom As	Lime	Lime	Other	Other
<i>POTENTIAL TO EMIT</i>			Deliveries	Deliveries	Deliveries	Deliveries	Deliveries	Deliveries	Deliveries	Deliveries	Deliveries	Deliveries
			Loaded	Unloaded	Loaded	Unloaded	Loaded	Unloaded	Loaded	Unloaded	Loaded	Unloaded
particle size multiplie	k	dimensionless	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016
road surface silt load	sL	g/m <sup>2</sup>	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
average vehicle weig	W	ton	40	15	40	15	40	15	40	15	40	15
Emission factor	E	lb/VMT	2.17	0.50	2.17	0.50	2.17	0.50	2.17	0.50	2.17	0.50
road length	ft		3600	3600	1500	1500	1500	1500	1300	1300	1300	1300
	mi		0.68	0.68	0.28	0.28	0.28	0.28	0.25	0.25	0.25	0.25
		vehicles/day	5.34	5.34	21.45	21.45	5.36	5.36	7.32	7.32	20.00	20.00
		vehicles/year	1948.8	1948.8	7827	7827	1957	1957	2671	2671	7300	7300
		lb PM-10/day	7.9	1.8	13.2	3.0	3.3	0.8	3.9	0.9	10.7	2.5
		day/yr	365	365	365	365	365	365	365	365	365	365
		ton PM-10/yr	1.444	0.332	2.417	0.555	0.604	0.139	0.715	0.164	1.954	0.449
<b>total ton PM-10 from paved roads per year:</b>			<b>1.78 from Coal Handling</b> <b>3.72 from Ash Handling</b> <b>3.28 from Lime Handling and other road dust sources</b>									

Road Dust

PAVED ROAD CALCULATIONS			TRUCKS									
PM-30 (Surrogate for TSP)			Coal	Coal	Flyash	Flyash	Bottom As	Bottom As	Lime	Lime	Other	Other
POTENTIAL TO EMIT			Deliveries	Deliveries	Deliveries	Deliveries	Deliveries	Deliveries	Deliveries	Deliveries	Deliveries	Deliveries
			Loaded	Unloaded	Loaded	Unloaded	Loaded	Unloaded	Loaded	Unloaded	Loaded	Unloaded
particle size multiplier	k	dimensionless	0.082	0.082	0.082	0.082	0.082	0.082	0.082	0.082	0.082	0.082
road surface silt load	sL	g/m <sup>2</sup>	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
average vehicle weight	W	ton	40	15	40	15	40	15	40	15	40	15
Emission factor	E	lb/VMT	11.14	2.56	11.14	2.56	11.14	2.56	11.14	2.56	11.14	2.56
road length	ft		3600	3600	1500	1500	1500	1500	1300	1300	1300	1300
	mi		0.68	0.68	0.28	0.28	0.28	0.28	0.25	0.25	0.25	0.25
		vehicles/day	5.34	5.34	21.45	21.45	5.36	5.36	7.32	7.32	20.00	20.00
		vehicles/year	1948.8	1948.8	7827	7827	1957	1957	2671	2671	7300	7300
		lb TSP/day	40.6	9.3	67.9	15.6	17.0	3.9	20.1	4.6	54.9	12.6
		day/yr	365	365	365	365	365	365	365	365	365	365
		ton TSP/yr	7.402	1.700	12.388	2.845	3.097	0.711	3.664	0.841	10.013	2.299
<b>total ton TSP from paved roads per year:</b>			<b>9.10</b>		<b>from Coal Handling</b>							
			<b>19.04</b>		<b>from Ash Handling</b>							
			<b>16.82</b>		<b>from Lime Handling and other road dust sources</b>							
<i>Coal, Ash, Lime Deliveries from estimated material usage (see Mat'l Use sheet)</i>												
<i>Other Deliveries (estimates):</i>												
	6	trucks/day	Water treatment chemical deliveries/disposal									
	2	trucks/day	Municipal trash disposal									
	1	truck/day	Propane delivery									
	6	trucks/day	Freight, other deliveries									
	5	trucks/day	Service / equipment									
	20	trucks/day	Total									

**Appendix C**

---

**State of Florida PSD Permit/Permit to Construct**

received

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
NOTICE OF PERMIT

In the matter of an  
Application for Permit by:

DER File No. PSD-FL-168  
Martin County

Mr. Stephen A. Sorrentino  
Indiantown Cogeneration, L.P.  
7475 Wisconsin Ave.  
Bethesda, MD 20814-3422

Enclosed is Permit Number PSD-FL-168 to construct a cogeneration project,  
issued pursuant to Section(s) 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the  
permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of  
Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the  
Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road,  
Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal  
accompanied by the applicable filing fees with the appropriate District Court of  
Appeal. The Notice of Appeal must be filed within 30 days from the date this  
Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

*Barry D. Antun*  
fr C. H. Fancy, P.E., Chief  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this  
NOTICE OF PERMIT and all copies were mailed before the close of business on  
3/26/92 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,  
on this date, pursuant to  
§120.52(11), Florida Statutes,  
with the designated Department  
Clerk, receipt of which is hereby  
acknowledged.

*Kevin J. Jaben*  
\_\_\_\_\_  
(Clerk)

3/26/92  
(Date)

Copies furnished to:  
Jewell A. Harper, EPA  
Isidore Goldman, SED  
James W. Coleman, Jr., NPS  
Steve Jelinek, ENSR



Final Determination

*Stubs*  
*05/0045*  
*ALSO*  
*DA*  
*ALSO*  
*Office*

PG&E/Bechtel Generating Company  
Indiantown Cogeneration, L.P.  
Martin County, Florida

Indiantown Cogeneration Project

PSD-FL-168

Department of Environmental Regulation  
Division of Air Resources Management  
Bureau of Air Regulation

March 17, 1992

## Final Determination

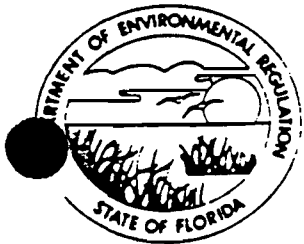
The Indiantown Cogeneration, L.P. (ICL) PSD permit application (part of the Power Plant Siting application) has been reviewed by the Division of Air Resources Management. Comments received from EPA Region IV dated February 25, 1992 (see attachment 1) and United States Department of the Interior, National Park Service (NPS), Southeast Regional Office dated February 21, 1992 (see attachment 2) are addressed below.

Best Available Control Technology (BACT): The EPA agreed that FDER's BACT was consistent with the most recent determinations for pulverized coal (PC) boilers for particulate, SO<sub>2</sub>, and NO<sub>x</sub>. However, EPA recommended that the permit include a new specific condition to follow in the event that the selective noncatalytic reduction (SNCR) system was incapable of achieving the 0.17 lb/MMBtu (24-hour avg.) NO<sub>x</sub> level. FDER has written Specific Condition No. 6 addressing EPA's concern. We are also requesting an opportunity to review the plans and specifications to assure that an appropriate design basis exists.

The NPS also expressed agreement with FDER's determination for particulate and SO<sub>2</sub> emission limitations and the method of control. However, they recommended that the source be required to install selective catalytic reduction (SCR) for NO<sub>x</sub> control since it is being required for similar projects in New Jersey and Virginia. In the case of New Jersey, it is our understanding that the facilities are in ozone nonattainment areas. However, the ICL project is in an attainment area for all pollutants. Over the past two years FDER has required sources to achieve lower and lower NO<sub>x</sub> levels as the technology advances. The NO<sub>x</sub> level required for the Indiantown Cogeneration facility meets FDER's goals and time table. As indicated above, the source will be required to achieve the specified NO<sub>x</sub> limit using whatever technologies are necessary.

Modeling: The NPS expressed concern about the impact of SO<sub>2</sub>, NO<sub>x</sub>, and VOC emissions on Class I areas. FDER is also concerned about the emissions of these pollutants even though the source is more than 100 km from any national park. However, the EPA ISCST model run for the ICL project indicated that the emissions were well below levels of concern for Class I areas.

The final action of the Department will be to issue construction permit PSD-FL-168 as proposed in the Technical Evaluation and Preliminary Determination.



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-24

Lawton Chiles, Governor

Carol M. Browner, Secretary

**PERMITTEE:**

Indiantown Cogeneration, L.P.  
7475 Wisconsin Ave.  
Bethesda, MD 20814-3422

**Permit Number:** PSD-FL-168

**County:** Martin

**Latitude/Longitude:** 27°02'20"N  
80°30'45"W

**Project:** Indiantown  
Cogeneration Project

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

The Indiantown Cogeneration, L.P. (ICL) proposes to construct a cogeneration project near Indiantown, Florida. The proposed plant is a pulverized-coal-fired facility that will produce approximately 330 megawatts (MW) of electricity for sale to the Florida Power and Light Company (FPL) and approximately 225,000 lb/hour of process steam for sale to the Caulkins Indiantown Citrus Company ("Caulkins"). The site, which occupies approximately 232 acres, is located 9 miles east of Lake Okeechobee and about 3 miles northwest of the community of Indiantown in southwestern Martin County.

The proposed facility includes one main boiler and one steam generator, and an auxiliary boiler operated during lightoff and startup of the main boiler or if the main boiler is down and process steam is required for Caulkins Citrus Processing. The primary source of air emissions will be the main boiler, firing coal. Secondary air emission sources include the auxiliary boiler firing natural gas or No. 2 fuel oil, and the material handling systems. The operation of these units will result in significant net emissions increases of regulated air pollutants over the current emissions levels and thus, is subject to review by the Department under the prevention of significant deterioration (PSD) regulations (Rule 17-2.500, Florida Administration Code).

The power plant site certification number for this project is PA 90-31.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

**PERMITTEE:**  
Indiantown Cogeneration, L. P.

**Permit Number:** PSD-FL-168  
**Project:** Indiantown  
Cogeneration Project

Attachments are listed below:

1. Power Plant Site Certification Package PA 90-31 and its associated attachments, dated September 6, 1991.
2. DER's Technical Evaluation and Preliminary Determination dated December 26, 1991.
3. Letter from National Park Service dated February 20, 1992.
4. Letter from EPA dated February 25, 1992.

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:  
Indiantown Cogeneration, L. P.

Permit Number: PSD-FL-168  
Project: Indiantown  
Cogeneration Project

GENERAL CONDITIONS:

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department

PERMITTEE:  
Indiantown Cogeneration, L. P.

Permit Number: PSD-FL-168  
Project: Indiantown  
Cogeneration Project

**GENERAL CONDITIONS:**

as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- (x) Determination of Best Available Control Technology (BACT)
- (x) Determination of Prevention of Significant Deterioration (PSD)
- (x) Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement,

PERMITTEE:  
Indiantown Cogeneration, L. P.

Permit Number: PSD-FL-168  
Project: Indiantown  
Cogeneration Project

GENERAL CONDITIONS:

report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

1. Beginning with the fifth quarter of operation, the Permittee shall submit to the Bureau of Air Regulation and the Air Section, Southeast District office, a quarterly report for the previous quarter showing the 12 month rolling average capacity factor for the generating unit.

The 12 month rolling average capacity factor shall be calculated by dividing each unit's megawatt hours output of generation by the product of the official megawatt rating of the unit and the number of hours in the 12 month period.

2. Only coal, natural gas or No. 2 fuel oil shall be fired in the pulverized coal (PC) boiler and auxiliary boiler.

3. The maximum heat input to the PC boiler shall not exceed 3422 MMBtu/hr while firing coal. The auxiliary boiler shall not exceed 342 MMBtu/hr while firing No. 2 fuel oil and 358 MMBtu/hr firing natural gas or propane.

4. The PC boiler shall be allowed to operate continuously (8760 hrs/yr). The auxiliary boiler shall operate a maximum of 5000 hrs with up to 1000 hrs/yr on No. 2 fuel oil with 0.05% sulfur, by

PERMITTEE:  
Indiantown Cogeneration, L. P.

Permit Number: PSD-FL-168  
Project: Indiantown  
Cogeneration Project

**SPECIFIC CONDITIONS:**

weight, and the balance on natural gas or propane. Fuel consumption must be continuously measured and recorded by fuel type (coal, natural gas or No. 2 fuel oil) for both the PC boiler and auxiliary boiler.

5. Based on a permitted heat input of 3422 MMBtu/hr, the stack emissions from the main boiler shall not exceed any of the following limitations:

Pollutant	Basis lb/MMBtu	Emission Limitation	
		lb/hr	TPY
SO <sub>2</sub>	0.170*	582*	2549
NO <sub>x</sub>	0.170*	582*	2549
PM	0.018	61.6	270 ✓
PM <sub>10</sub>	0.018	61.6	270
CO	0.110	376*	1649
VOC	0.0036	12.32	54.0
H <sub>2</sub> SO <sub>4</sub>	0.0004	1.45	6.51
Beryllium	0.0000027	0.0094	0.041
Mercury	0.0000114	0.039	0.17
Lead	0.00001	0.034	0.15
Fluorides	0.0015	5.08	22.3
Arsenic	0.000051	0.18	0.77

\*24 hour daily block average (midnight to midnight)

6. The 0.170 lb/MMBtu NO<sub>x</sub> emission rate is the basis for the above maximum emission limitation. The permittee is allowed to use any technology (e.g. SNCR, SCR, or combustion controls) to achieve the NO<sub>x</sub> limitation. Should a technology be chosen which does not meet the specified NO<sub>x</sub> limits, the permittee must apply whatever technologies deemed necessary to ensure that the NO<sub>x</sub> limitation is met. Plans and specifications must be submitted to DER's Bureau of Air Regulation in Tallahassee for review within 90 days after they become available.



PERMITTEE:  
Indiantown Cogeneration, L. P.

Permit Number: PSD-FL-168  
Project: Indiantown  
Cogeneration Project

SPECIFIC CONDITIONS:

- ✓ 7. NH<sub>3</sub> (Ammonia) - Slip from exhaust gases shall not exceed 50 ppmv.
- ✓ 8. Visible Emissions (VE) from each baghouse exhaust shall not exceed 10% opacity (six minute average). No VE during lime silo loading operations (i.e., less than 5% opacity). VE from the ash handling baghouse shall not exceed a particulate limit of 0.010 grains/acf and VE of 5% opacity. ✓
9. The auxilliary boiler, rated at up to 358 MMBtu/hr (Natural Gas and propane) and 342 MMBtu/hr (No. 2 fuel oil), shall be limited to a maximum of 5000 hours/year with up to 1000 hrs/yr firing No. 2 fuel oil with 0.05% sulfur, by weight, and the balance firing natural gas or propane. The maximum annual emissions will be as follows when firing No. 2 fuel oil for 1000 hrs/yr:

EMISSION LIMITATION

Pollutant	lbs/hr	tons/year
NO <sub>x</sub>	68.0	34
SO <sub>2</sub>	18.0	9
PM	1.4	0.70
PM <sub>10</sub>	1.4	0.70
CO	48.0	24
VOC	0.620	0.31
Be	4.0 x 10 <sup>-5</sup>	2.0 x 10 <sup>-5</sup>
Hg	5.2 x 10 <sup>-4</sup>	2.6 x 10 <sup>-4</sup>
Pb	3.6 x 10 <sup>-2</sup>	1.8 x 10 <sup>-2</sup>
As	6.8 x 10 <sup>-3</sup>	3.4 x 10 <sup>-3</sup>

10. Particulate emissions from the coal, and limestone handling facilities shall be controlled by enclosing all conveyors and conveyor transfer points (except those directly associated with the coal stacker/reclaimer for which an enclosure is operationally infeasible). Fugitive emission shall be tested as specified in Specific Condition No. 19. Inactive coal storage piles shall be shaped, compacted, and oriented to minimize wind erosion, and covered. Water sprays or chemical wetting agents and stabilizers shall be applied to uncovered storage piles, roads, handling equipment, etc. during dry periods and as necessary to all facilities to maintain an opacity of less than or equal to 5 percent. [When adding, moving or removing coal from the coal pile an opacity of 20% is allowed.] The lime handling system including the lime silos shall be maintained at a negative pressure while operating and the exhaust vented to a control system. The fly ash handling system (including transfer and silo storage) shall

PERMITTEE:  
Indiantown Cogeneration, L. P.

Permit Number: PSD-FL-168  
Project: Indiantown  
Cogeneration Project

**SPECIFIC CONDITIONS:**

be totally enclosed and vented (including pneumatic system exhaust) through fabric filters.

Submit for approval to the Department, Bureau of Air Regulation in Tallahassee within thirty (30) days after it becomes available, copies of technical data pertaining to the selected particulate emissions control for the coal, and lime handling facilities. These data shall include, but not be limited to guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. The Department shall issue a response within 30 days of receipt of the technical data.

11. Particulate emissions from bag filter exhausts from the coal, lime and flyash handling systems shall be limited to 0.010 gr/acf. A visible emission reading of 5% opacity or less may be used to establish compliance with this emission limit. A visible emission reading greater than 5% opacity will not create a presumption that the 0.010 gr/acf emission limit is being violated. However, a visible emission reading greater than 5% opacity will require the permittee to perform a stack test. Verification and recording of the above requirements for particulate emissions shall be done at least annually.

12. Emissions shall not be visible more than 2 minutes in any 15 minute period. Compliance with fugitive emissions limitations from all transfer points will be determined by EPA/DER referenced Method 22 and opacity Method 9 (Appendix A, 40 CFR 60).

13. Coal shall not be burned in the unit unless the spray dryer scrubber, fabric filter baghouse and other air pollution control devices are operating properly except as provided under 40 CFR Part 60, Subpart Da. Any malfunctions of these air pollution control devices are to be recorded; including duration, cause, and description of repair.

14. The fuel oil to be fired in the PC boiler and the auxiliary boiler shall be "new oil" which means an oil which has been refined from crude oil and has not been used. The quality of the No. 2 fuel oil used by the auxiliary boiler shall not contain more than 0.05% sulfur, by weight, based on each shipment analysis report.

15. No fraction of flue gas shall be allowed to bypass the air pollution control devices (PCD) system to reheat the gases exiting from the PCD system, if the bypass will cause emissions above the limits specified. The percentage and amount of flue gas bypassing

Coal Handling ✓  
Lime Handling ✓  
Fly Ash Handling ✓  
Coal Handling ✓  
Fly Ash Handling ✓

PERMITTEE:  
Indiantown Cogeneration, L. P.

Permit Number: PSD-FL-168  
Project: Indiantown  
Cogeneration Project

**SPECIFIC CONDITIONS:**

the PCD system shall be documented and records kept for a minimum of two years and must be available for FDER's inspection.

✓ 16. All fuel oil and coal shipments shall have a shipment analysis for sulfur content, ash content, and heating value. In the event continuous emission monitoring of sulfur dioxide is not performed, a daily analysis of coal sulfur content for the purpose of establishing the percentage reduction in potential sulfur emissions shall be made. Such determination shall be in accordance with EPA reference Method 19. Records of all the analyses shall be kept for FDER inspection for a minimum of two years after the data is recorded.

17. The applicant shall comply with applicable requirements and provisions of the New Source Performance Standard for electric utility steam generating units (40 CFR 60 Part Da).

18. Within 60 calendar days after achieving the permitted capacity at which the unit will be operated, but no later than 180 calendar days after initial startup, the permittee shall conduct stack tests for particulates, SO<sub>2</sub>, NO<sub>x</sub>, and visible emissions and furnish the Department a written report of the results of such tests within 45 days of completion of the tests. The tests shall be conducted in accordance with the provisions specified in 40 CFR 60 and shall be conducted within 90-100% of capacity.

✓ 19. Compliance with emission limitation standards shall be demonstrated using EPA Methods, as contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources), or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants), or any other method approved by the Department and EPA, in accordance with F.A.C. Rule 17-2.700.

EPA Method

For Determination of

- |     |  |
|-----|--|
| ✓ 1 | Selection of sample site and velocity traverses.   |
| 2   | Stack gas flow rate when converting concentrations to or from mass emission limits.  |
| 3   | Gas analysis when needed for calculation of molecular weight or percent O <sub>2</sub> .   |
| 4   | Moisture content when converting stack velocity to dry volumetric flow rate for use in converting concentrations in dry gases to or from mass emission limits. |

PERMITTEE:  
Indiantown Cogeneration, L. P.

Permit Number: PSD-FL-168  
Project: Indiantown  
Cogeneration Project

SPECIFIC CONDITIONS:

- 5 Particulate matter concentration and mass emissions.
- 201 or 201A PM<sub>10</sub> emissions.
- 6, 6C, or 19 Sulfur dioxide emissions from stationary sources.
- 7, 7C, or 19 Nitrogen oxide emissions from stationary sources.
- 8 Sulfuric acid mist from stationary source.
- 9 Visible emission determination of opacity.
- At least three one hour runs to be conducted simultaneously with particulate testing for the emissions from dry scrubber/baghouse, and ash handling building baghouse.
  - At least one lime vehicle unloading into the lime silo (from start to finish).
- 22 Fugitive emissions from transfer points.
- 10 Carbon monoxide emissions from stationary sources.
- 12 or 101A Lead concentration from stationary sources.
- 13A or 13B Fluoride emissions from stationary sources.
- 18 or 25, Volatile organic compounds concentration.
- 101A or 108 Mercury emissions.
- 104 Beryllium emission rate and associated moisture content.

NOTE: Use EPA draft method or other methods approved by Department to test for ammonia.

20. Performance tests shall be conducted under such conditions as the Department shall specify based on representative performance of the facility. The permittee shall make available to the Department

PERMITTEE:  
Indiantown Cogeneration, L. P.

Permit Number: PSD-FL-168  
Project: Indiantown  
Cogeneration Project

**SPECIFIC CONDITIONS:**

such records as may be necessary to determine the conditions of the performance tests.

21. The permittee shall provide written notice to the Southeast District office 30 days prior to the tests in order to afford the Department the opportunity to have an observer present.

22. Stack tests for particulates (PM and PM<sub>10</sub>), NO<sub>x</sub> and SO<sub>2</sub> and visible emissions shall be performed annually.

23. Stack emission monitoring shall include a flue gas oxygen meter to continuously monitor a representative sample of the flue gas. The oxygen monitor shall be used with automatic feedback controls to continuously maintain air/fuel ratio parameters at an optimum. The permittee shall install and operate continuously monitoring devices for each main boiler exhaust for sulfur dioxide, nitrogen dioxide and opacity, including flue gas O<sub>2</sub> and/or CO<sub>2</sub> content. The monitoring devices shall meet the applicable requirements of Section 17-2, F.A.C., and 40 CFR 60 a minimum of 95% of the time the source is operating.

24. The permittee shall operate two continuous ambient air monitoring sites for sulfur dioxide in accordance with FDER quality control procedures and EPA reference methods in 40 CFR, Part 53, and two ambient air monitoring sites for suspended particulates, and one continuous NO<sub>x</sub> monitor site. The ambient monitoring site locations shall be approved by the Department's Bureau of Air Monitoring and Assessment. The frequency of operation of the particulate monitors shall be every six days commencing as specified by the Department's Bureau of Air Monitoring and Assessment. During construction and operation, wind speed/wind direction will be recorded and reported with the ambient data.

25. The permittee shall provide stack sampling facilities as required by Rule 17-2.700(4) FAC.

26. The ambient monitoring program shall begin at least one year prior to initial start up of the unit and shall continue for at least one year after commencement of commercial operation. The Department's Bureau of Air Monitoring and Assessment and the permittee shall review the results of the monitoring program annually and determine the necessity for the continuation of or modifications to the monitoring program.

27. Prior to operation of the source, the permittee shall submit to the Department's Bureau of Air Regulation a plan or procedure

PERMITTEE:  
Indiantown Cogeneration, L. P.

Permit Number: PSD-FL-168  
Project: Indiantown  
Cogeneration Project

**SPECIFIC CONDITIONS:**

that will allow the permittee to monitor emission control equipment efficiency and enable the permittee to return malfunctioning equipment to proper operation as expeditiously as possible.

28. Stack monitoring, fuel usage and fuel analysis data shall be reported to the Department's Southeast District Office on a quarterly basis commencing with the start of commercial operation in accordance with 40 CFR, Part 60, Section 60.7, and 60.49a and in accordance with Section 17-2.08, FAC.

29. Utilizing the Aerometric Information and Retrieval System (AIRS) or other format approved in writing by the Department, ambient air monitoring data shall be reported to the Bureau of Air Monitoring and Assessment of the Department quarterly. Upon commencement of ambient air monitoring, such reports shall be due within 45 days of the end of the quarterly reporting period. Reporting and monitoring shall be in conformance with 40 CFR Parts 53 and 58.

30. Beginning one month after certification, the permittee shall submit to the Department a quarterly status report briefly outlining progress made on engineering design and purchase of major pieces of air pollution control equipment. All reports and information required to be submitted under this condition shall be submitted to the Siting Coordination Office, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida, 32301.

31. In the event of a prolonged (thirty days or more) equipment malfunction or shutdown of air pollution control equipment, operation shall be allowed to resume and continue to take place under appropriate Department order, provided that the Permittee demonstrates such operation will be in compliance with all applicable ambient air quality standards and PSD increments. During such malfunction or shutdown, operation of the facility shall comply with all other requirements of this permit and all applicable state and federal emission standards not affected by the malfunction or shutdown which is the subject of the Order. Operational stoppages exceeding two hours for air pollution control systems are to be reported to the Southeast District office. Operational malfunctions which do not stop operation but may prevent compliance with emission limitations must also be reported to the Southeast District office.

PERMITTEE:  
Indiantown Cogeneration, L. P.

Permit Number: PSD-FL-168  
Project: Indiantown  
Cogeneration Project

SPECIFIC CONDITIONS:

Issued this 25<sup>th</sup> day  
of MARCH, 1992

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION



---

Carol M. Browner, Secretary

**Attachment 1**





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

4APT-AEB

FEB 25 1992

Mr. Clair H. Fancy, P.E., Chief  
Bureau of Air Regulation  
Florida Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

RE: Indiantown Cogeneration L.P. (PSD-FL-168)

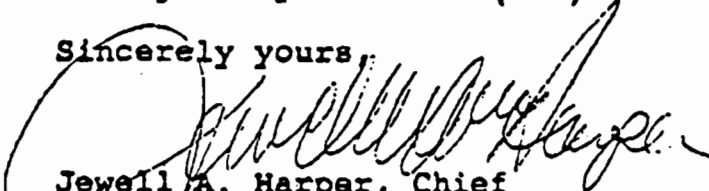
Dear Mr. Fancy:

This is to acknowledge receipt of your preliminary determination and draft Prevention of Significant Deterioration (PSD) permit for the above referenced facility by letter dated December 26, 1991. As discussed between Mr. Barry Andrews of your staff and Mr. Gregg Worley of my staff on February 21, 1992, we have reviewed the package as requested and have the following comments.

The project consists of the construction of one 330 MW pulverized coal (PC) fired boiler. Best available control technology (BACT) for the source was determined by your department to be the use of fabric filtration in conjunction with lime spray drying for the control of particulates and sulfur dioxide, as well as the use of selective non-catalytic reduction (SNCR) for the control of NO<sub>x</sub> emissions. The NO<sub>x</sub> emission limit of 0.17 lb/mmBTU (24-hour avg.) is consistent with the most recent determinations for PC boilers; however, we recommend that the permit be conditioned such that in the event that the SNCR system is not capable of achieving the specified NO<sub>x</sub> emission limit, the source must apply whatever control technologies are deemed necessary to ensure that the NO<sub>x</sub> emission limit is met.

Thank you for the opportunity to review and comment on this package. If you have any questions on these comments, please contact Gregg Worley of my staff at (404) 347-5014.

Sincerely yours,

  
Jewell A. Harper, Chief  
Air Enforcement Branch  
Air, Pesticides, and Toxics  
Management Division

cc: E. Andrews

P. Lewis

M. Pruitt

J. Rogers

B. Green

S. Brooks, SE Dist

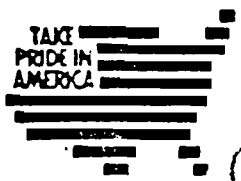
**Attachment 2**



# United States Department of the Interior

NATIONAL PARK SERVICE  
SOUTHEAST REGIONAL OFFICE

75 Spring Street, S.W.  
Atlanta, Georgia 30303



IN REPLY REFER TO

N3615 (SER-ODN)

Mr. C.H. Fancy, P.E., Deputy Chief  
Bureau of Air Quality Management  
Florida Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

RECEIVED  
FEB 21 1982  
Division of Air  
Resources Management

Dear Mr. Fancy:

We have reviewed the Indiantown Cogeneration, L.P. (Indiantown) Electric Power Plant Site Technical Evaluation and Preliminary Determination Document regarding a proposed cogeneration facility near Indiantown, Florida. The Indiantown facility will be a major source of nitrogen oxides ( $\text{NO}_x$ ), carbon monoxide, particulate matter, and sulfur dioxide ( $\text{SO}_2$ ), and will be located approximately 145 km north of Everglades NP, a Class I air quality area administered by the National Park Service. We have the following comments regarding the Technical Evaluation and Preliminary Determination Document.

We agree that the use of a baghouse to control particulate matter emissions, and a high efficiency (95 percent) spray dryer absorber to remove  $\text{SO}_2$  represents the best available control technology for the proposed boiler. For  $\text{NO}_x$  control, Indiantown proposes to use advanced combustion controls, low- $\text{NO}_x$  burners, and selective non-catalytic reduction (SNCR), resulting in a  $\text{NO}_x$  limit of 0.17 pounds per million Btu (lb/MMBtu).

We understand that Indiantown's proposed  $\text{NO}_x$  controls are the same as those proposed by Keystone Cogeneration Systems (Keystone) in Gloucester County, New Jersey. The Keystone permit allows an initial maximum  $\text{NO}_x$  rate of 0.17 lb/MMBtu, but also includes a condition that requires Keystone to design and optimize the SNCR system to achieve a  $\text{NO}_x$  emission rate of less than 0.10 lb/MMBtu. Another condition in the Keystone permit states that at the end of the first 2-year operating period, the 0.17 lb/MMBtu limit shall be revised downward to reflect the rate that is demonstrated to be consistently achieved by the SNCR system. We recommend that if Indiantown does install the SNCR system, they be required to meet similar conditions as those in the Keystone permit.

As you know, EPA-Region 4 recently revised the PSD permit for Orlando Utilities Stanton Unit 2. The permit now requires Orlando Utilities to install a Selective Catalytic Reduction (SCR) system on Unit 2 to reduce NO<sub>x</sub> emissions. The SCR system is to be designed to achieve a NO<sub>x</sub> emission rate of less than 0.10 lb/MMBtu. Similarly, in December 1990, the New Jersey Department of Environmental Protection granted a permit to Chambers Cogeneration that requires a SCR system designed to meet a 0.10 lb/MMBtu limit. Finally, the Virginia Department of Air Pollution Control recently issued draft permits for two coal-fired cogeneration facilities that require SCR to control NO<sub>x</sub> emissions (Hadson Power and Cogentrix-Dinwiddie). Given the recent developments in the SCR technology and the fact that other permitting authorities are now requiring SCR for coal-fired boilers, we ask that you require Indiantown to reconsider SCR for their proposed boiler as well.

Indiantown used the EPA ISCST model for the cumulative Class I increment analysis and included a total of 23 increment-consuming sources. The results of this analysis show that once in 1983 and once again in 1984, the 3-hour and 24-hour Class I SO<sub>2</sub> increments were exceeded (highest concentrations of 30.5 micrograms per cubic meter (ug/m<sup>3</sup>) and 6.0 ug/m<sup>3</sup>, respectively). However, the high second-high concentrations during these episodes were below the allowable increment. Therefore, the class I increments for both the 3-hour and 24-hour averaging periods are exceeded, but not yet violated. The high second-high concentration for 1983 data was 4.8 ug/m<sup>3</sup>, which is 96 percent of the class I increment of 5 ug/m<sup>3</sup>. As you may know, if a proposed source will cause or contribute to a Class I increment violation, the applicant will need to ask us to certify that there will be no adverse impacts to Class I area resources before the project can be permitted.

Indiantown only reported the high and high-second-high concentrations per year for our review. In the future, if the applicant is modeling with the ISCST model, we ask that they provide us with the "Max 50" table so that we can know more about the location and magnitude of impacts at other receptors in the park. In addition, Indiantown's total ambient analysis was overly conservative because they modeled all PSD and existing sources, and then added those concentrations to monitored ambient background levels. A more realistic total ambient impacts analysis for Class I areas is performed by modeling the proposed source and any newly permitted, but not yet operating, source and adding these impacts to the ambient background concentrations.

Indiantown performed a visibility analysis using the EPA model VISCREEN. The proposed project passed the Level I VISCREEN test, indicating that the proposed emissions would have low potential for visibility impairment due to plume impacts in Everglades NP.

In our review of the Florida Power and Light Technical Evaluation and Preliminary Determination Document (May 1991) we identified our concerns with the effects emissions from the proposed facility may have on the air quality related values (AQRVs) at Everglades NP. We also have the same general concerns with the Indiantown project. The Indiantown Technical Evaluation and Preliminary Determination Document states that the predicted emissions from the proposed project, including a background concentration, will be below the State's Ambient Air Quality Standards including the secondary National Ambient Air Quality Standards (NAAQS), which were designed to protect vegetation from the adverse impacts of air pollutants. The document states that this project is not expected to have a harmful impact on soils and vegetation. We wish to again clarify that there are documented effects below the NAAQS, and that compliance with the NAAQS does not ensure that there will be no negative impacts. The secondary NAAQS are based primarily on effects on cash crops and may not reflect a level of protection for all AQRVs such as native vegetation found in Class I areas. In addition, the secondary NAAQS are national levels set to protect against effects due to multiple and diverse sources and may not provide adequate protection for sensitive species found in only one area of the country, nor do they address synergistic effects of multiple pollutants. Therefore, there may be instances, and ongoing studies are confirming this, where adverse effects to AQRVs can occur at levels below the NAAQS.

The location of Everglades NP at the southern tip of the Florida peninsula allows for a unique ecosystem whose native communities reflect both temperate and subtropical influences. Studies have shown that fertilization can decrease the frost hardiness of certain plant species. We are concerned that the nitrates resulting from emissions would favor more frost tolerant species, thereby causing major shifts in community composition and structure. For example, South Florida slash pine (Pinus elliotti var. densa) is a major constituent of the upland park community, and is the predominant canopy tree species. The slash pines in the park grow on a limestone-derived soil, and they are most likely nitrogen limited. Fertilization by anthropogenic nitrogen could cause the pines to continue growing into the winter, increasing the likelihood of frost damage. Over time, the slash pines could be replaced by a tree species that is less responsive to fertilization.

We are also concerned about the roles that nitrogen oxides and volatile organic compounds play as ozone precursors. Fumigation studies conducted in chambers have shown that slash pine seedlings are particularly sensitive to chronic ozone concentrations below the NAAQS. The seedlings showed reductions in root growth even before visible foliar injury was observed. We have not yet duplicated the experiment in the field to

determine if current ozone levels in Everglades NP induce the same degree of growth reductions as were observed in the chambers.

Lichens and bryophytes are common in the park, and due to their unique morphology, are particularly sensitive to air pollutants such as sulfur dioxide. The nitrates in acid rain may also be harmful to bryophytes, particularly to tank bryophytes which accumulate rainwater in a cup-shaped basin formed by overlapping leaves. Two species of epiphytes found in the park, Tillandsia flexuosa, a bromeliad, and Epidendrum nocturnum, an orchid, are considered threatened under the Preservation of Native Flora of Florida Act. The sensitivity of these two threatened species to air pollutants is not known at this time.

Nitrogen oxide and sulfur dioxide emissions may lead to the acidification of the huge wetland system that comprises much of the park. Acidification leads to changes in the flora and fauna of an aquatic ecosystem.

Finally, we are concerned about the high levels of mercury that have been found in the federally endangered Florida panther and other animals in the park. It is not known at this time what the source of the mercury is, but we encourage you to limit mercury emissions in the vicinity of the park until the source can be identified and remedial action taken.

If you have any questions regarding this matter, please contact Dee Morse of our Air Quality Division in Denver at 303-969-2071.

Sincerely,

*J. W. Cole*

FOR

James W. Coleman, Jr.  
Regional Director  
Southeast Region

*B. Anderson*

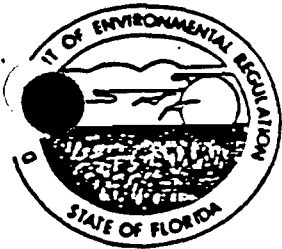
*M. Bennett*

*S. ...*

*J. ... SE Dist.*

*D. ... PG+E/...*

*E. ...*



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

July 16, 1992

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Stephen A. Sorrentino  
Indiantown Cogeneration, L.P.  
7475 Wisconsin Avenue  
Bethesda, MD 20814-3422

Re: Martin County - A.P.  
Indiantown Cogeneration, L.P.  
PSD-FL-168; Permit Modification

Dear Mr. Sorrentino:

The Department has received a request from Mr. Douglas Roberts on May 28, 1992, for minor modifications to the recently issued permit for the above referenced project. The Department concurs with your request and will allow you to split the auxiliary boiler into two boilers, use propane fuel, and change the lead (Pb) standards.

The Department grants the following amendments to the above referenced permit:

Project Description, 3rd Paragraph, Page 1 of 13

FROM:

The proposed facility includes one main boiler and one steam generator, and an auxiliary boiler operated during lightoff and startup of the main boiler or if the main boiler is down and process steam is required for Caulkins Citrus Processing. The primary source of air emissions will be the main boiler, firing coal. Secondary air emission sources include the auxiliary boiler firing natural gas or No. 2 fuel oil, and the material handling systems. The operation of these units will result in significant net emissions increases of regulated air pollutants over the current emissions levels and thus, is subject to review by the Department under the prevention of significant deterioration (PSD) regulations (Rule 17-2.500, Florida Administration Code).

TO:

The proposed facility includes one main boiler and one steam generator, and one or two 50% capacity auxiliary boilers operated during lightoff and startup of the main boiler or if the main

Mr. Stephen A. Sorrentino  
Page 2 of 6  
Amendment to PSD-FL-168

boiler is down and process steam is required for Caulkins Citrus Processing. The primary source of air emissions will be the main boiler, firing coal. Secondary air emission sources include the auxiliary boilers firing natural gas, propane or No. 2 fuel oil, and the material handling systems. The operation of these units will result in significant net emissions increases of regulated air pollutants over the current emissions levels and thus, is subject to review by the Department under the prevention of significant deterioration (PSD) regulations (Rule 17-2.500, Florida Administration Code).

Specific Condition No. 2:

FROM: Only coal, natural gas or No. 2 fuel oil shall be fired in the pulverized coal (PC) boiler and auxiliary boiler.

TO: Only coal, natural gas, propane or No. 2 fuel oil shall be fired in the pulverized coal (PC) boiler and auxiliary boilers. ✓

Specific Condition No. 3:

FROM: The maximum heat input to the PC boiler shall not exceed 3422 MMBtu/hr while firing coal. The auxiliary boiler shall not exceed 342 MMBtu/hr while firing No. 2 fuel oil and 358 MMBtu/hr firing natural gas or propane.

TO: The maximum heat input to the PC boiler shall not exceed 3422 MMBtu/hr while firing coal. The one or two auxiliary boilers shall not exceed a combined total of 342 MMBtu/hr while firing No. 2 fuel oil and a combined total of 358 MMBtu/hr firing natural gas or propane. ✓

Specific Condition No. 4:

FROM: The PC boiler shall be allowed to operate continuously (8760 hrs/yr). The auxiliary boiler shall operate a maximum of 5000 hrs with up to 1000 hrs/yr on No. 2 fuel oil with 0.05% sulfur, by weight, and the balance on natural gas or propane. Fuel consumption must be continuously measured and recorded by fuel type (coal, natural gas or No. 2 fuel oil) for both the PC boiler and auxiliary boiler.

TO: The PC boiler shall be allowed to operate continuously (8760 hrs/yr). The auxiliary boiler or boilers shall operate a maximum of 5000 hrs at the combined total heat input rates with up to 1000 hrs/yr on No. 2 fuel oil with 0.05% sulfur, by weight, and the balance on natural gas or propane. Fuel consumption must be ✓



Mr. Stephen A. Sorrentino  
 Page 3 of 6  
 Amendment to PSD-FL-168

continuously measured and recorded by fuel type (coal, natural gas, propane or No. 2 fuel oil) for both the PC boiler and auxiliary boilers.

Specific Condition No. 5:

FROM: Based on a permitted heat input of 3422 MMBtu/hr, the stack emissions from the main boiler shall not exceed any of the following limitations:

Pollutant	Basis lb/MMBtu	Emission Limitation	
		lb/hr	TPY
SO <sub>2</sub>	0.170*	582*	2549
NOx	0.170*	582*	2549
PM	0.018	61.6	270
PM <sub>10</sub>	0.018	61.6	270
CO	0.110	376*	1649
VOC	0.0036	12.32	54.0
H <sub>2</sub> SO <sub>4</sub>	0.0004	1.45	6.51
Beryllium	0.0000027	0.0094	0.041
Mercury	0.0000114	0.039	0.17
Lead	0.00001	0.034	0.15
Fluorides	0.0015	5.08	22.3
Arsenic	0.000051	0.18	0.77

\*24 hour daily block average (midnight to midnight)

TO: Based on a permitted heat input of 3422 MMBtu/hr, the stack emissions from the main boiler shall not exceed any of the following limitations:

Pollutant	Basis lb/MMBtu	Emission Limitation	
		lb/hr	TPY
SO <sub>2</sub>	0.170*	582*	2549
NOx	0.170*	582*	2549

Mr. Stephen A. Sorrentino  
 Page 4 of 6  
 Amendment to PSD-FL-168

PM	0.018	61.6	270
PM <sub>10</sub>	0.018	61.6	270
CO	0.110	376*	1649
VOC	0.0036	12.32	54.0
H <sub>2</sub> SO <sub>4</sub>	0.0004	1.45	6.51
Beryllium	0.0000027	0.0094	0.041
Mercury	0.0000114	0.039	0.17
Lead	0.0000187	0.064	0.280
Fluorides	0.0015	5.08	22.3
Arsenic	0.000051	0.18	0.77

\*24 hour daily block average (midnight to midnight)

Specific Condition No. 9

FROM: The auxiliary boiler, rated at up to 358 MMBtu/hr (Natural Gas and propane) and 342 MMBtu/hr (No. 2 fuel oil), shall be limited to a maximum of 5000 hours/year with up to 1000 hrs/yr firing No. 2 fuel oil with 0.05% sulfur, by weight, and the balance firing natural gas or propane. The maximum annual emissions will be as follows when firing No. 2 fuel oil for 1000 hrs/yr:

EMISSION LIMITATION

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/year</u>
NO <sub>x</sub>	68.0	34
SO <sub>2</sub>	18.0	9
PM	1.4	0.70
PM <sub>10</sub>	1.4	0.70
CO	48.0	24
VOC	0.620	0.31
Be	4.0 x 10 <sup>-5</sup>	2.0 x 10 <sup>-5</sup>
Hg	5.2 x 10 <sup>-4</sup>	2.6 x 10 <sup>-4</sup>
Pb	3.6 x 10 <sup>-2</sup>	1.8 x 10 <sup>-2</sup>
As	6.8 x 10 <sup>-3</sup>	3.4 x 10 <sup>-3</sup>

TO: The auxiliary boiler or auxiliary boilers rated at a combined total of up to 358 MMBtu/hr (Natural gas and propane) and 342

MMBtu/hr (No. 2 fuel oil), shall be limited to a maximum of 5000 hours/year at the combined total heat input rates with up to 1000 hrs/yr firing No. 2 fuel oil with 0.05% sulfur, by weight, and the balance firing natural gas or propane. The maximum total annual emissions from the auxiliary boiler or boilers will be as follows when firing No. 2 fuel oil for 1000 hrs/yr:

EMISSION LIMITATION

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/year</u>
NO <sub>x</sub>	68.0	34
SO <sub>2</sub>	18.0	9
PM	1.4	0.70
PM <sub>10</sub>	1.4	0.70
CO	48.0	24
VOC	0.620	0.31
Be	4.0 x 10 <sup>-5</sup>	2.0 x 10 <sup>-5</sup>
Hg	5.2 x 10 <sup>-4</sup>	2.6 x 10 <sup>-4</sup>
Pb	3.6 x 10 <sup>-2</sup>	1.8 x 10 <sup>-2</sup>
As	6.8 x 10 <sup>-3</sup>	3.4 x 10 <sup>-3</sup>

All other conditions remain as issued. This letter must be attached to the PSD-FL-168 permit and shall become a part of the permit.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of their receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File

Mr. Stephen A. Sorrentino  
Page 6 of 6  
Amendment to PSD-FL-168

- Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
  - (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
  - (d) A statement of the material facts disputed by Petitioner, if any;
  - (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
  - (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
  - (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Sincerely,

  
Carol M. Brown  
Secretary

CMB/MB/plm

cc: Jewell A. Harper, EPA  
Isidore Goldman, SED  
James W. Coleman, Jr.; NPS  
Steve Jelinek, ENSR

**Appendix D**

---

**Attachments to Application Forms**

INDIANTOWN COGENERATION CO, L.P.

MASTER LIST OF TITLE V APPLICATION ATTACHMENTS

Document ID	Description	
01	Professional Engineer explanation & exceptions	
02	Area Map Showing Facility Location	
03	Facility Plot Plan	
04	Precautions to Prevent Emissions of Unconfined Particulate Matter	
05	List of Proposed Exempt Activities	
06	List of Equipment/Activities Regulated under Title VI	
07	Compliance Report and Plan	
08	Compliance Certification	
09	Process Flow Diagram	PC Boiler
10	Fuel Analysis or Specification	PC Boiler
11	Description of Control Equipment	PC Boiler
12	Description of Stack Sampling Facilities	PC Boiler
13	Procedures for Startup and Shutdown	PC Boiler
14	Process Flow Diagram	Aux Boilers
15	Fuel Analysis or Specification	Aux Boilers
16	Description of Control Equipment	Aux Boilers
17	Description of Stack Sampling Facilities	Aux Boilers
18	Procedures for Startup and Shutdown	Aux Boilers
19	Process Flow Diagram	Coal Handling System
20	Description of Control Equipment	Coal Handling System
21	Process Flow Diagram	Ash Handling System
22	Description of Control Equipment	Ash Handling System
23	Process Flow Diagram	Lime Handling System
24	Description of Control Equipment	Lime Handling System

Indiantown Cogeneration  
Attachment Document ID #01  
Exceptions to Professional Engineer Certification

Because of the relatively small amount of operating experience at the plant, little Continuous Emissions Monitoring (CEM) operating or reporting data has been generated, and the CEM certification has not yet been approved by the Department. The plant warrantee process procedure is still in progress, and there are CEM punch list items still to be completed. Therefore, I cannot yet certify whether the CEM equipment and procedures comply with applicable requirements.

*George Zyka*

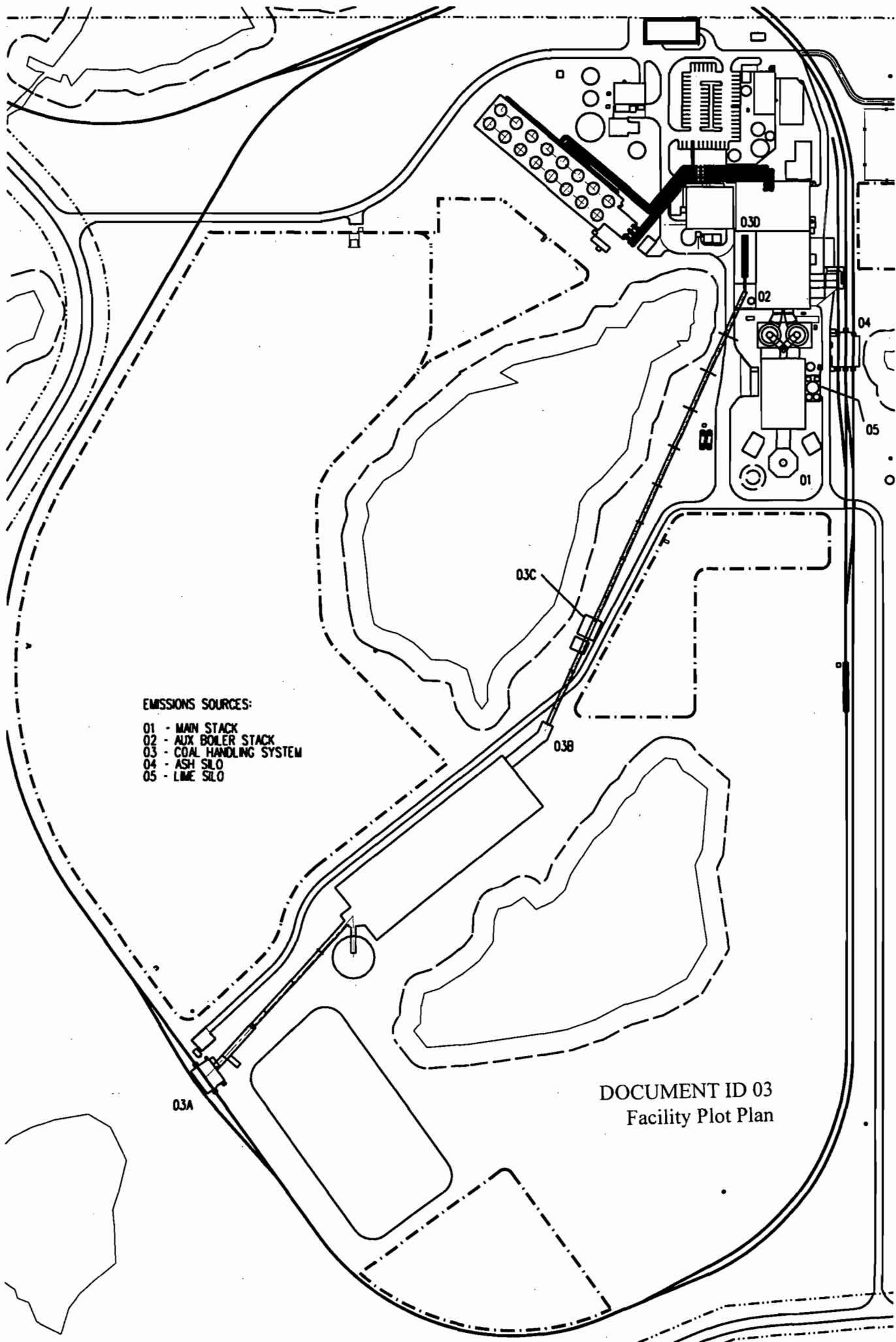




EMISSIONS SOURCES:

- 01 - MAIN STACK
- 02 - AUX BOILER STACK
- 03 - COAL HANDLING SYSTEM
- 04 - ASH SILO
- 05 - LIME SILO

DOCUMENT ID 03  
Facility Plot Plan



### Precautions to Prevent Emissions of Unconfined Particulate Matter

The Facility operates in accordance with generally accepted practices to prevent emissions of unconfined particulate matter. The Facility also operates in accordance with the requirements of its PSD Permit/Permit to Construct, especially as noted:

- Particulate emissions from the coal, and limestone handling facilities are controlled by enclosing all conveyors and conveyor transfer points (except those directly associated with the coal stacker/reclaimer for which an enclosure is operationally infeasible).
- Inactive coal storage piles are being shaped, compacted, and oriented to minimize wind erosion, and covered.
- Water sprays or chemical wetting agents and stabilizers are applied to uncovered storage piles, roads, handling equipment, etc., during dry periods and as necessary to all facilities to maintain an opacity of less than or equal to 5 percent.
- The lime handling system including the lime silos are maintained at a negative pressure while operating and the exhaust vented to a control system.
- The flyash handling system (including transfer and silo storage) are totally enclosed and vented (including pneumatic system exhaust) through fabric filters.
- Particulate emissions from bag filter exhausts from the coal, lime and flyash handling systems are limited to 0.010 gr/acf. A visible emission reading of 5% opacity or less has been used to establish compliance with this emission limit.
- Verification and recording of the above requirements for particulate emissions will be done annually.

The Facility has submitted (6/93 and 11/93) for approval to the Department, Bureau of Air Regulation in Tallahassee, copies of technical data pertaining to the selected particulate emissions control for the coal, and lime handling facilities. These data include guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate.

Please refer to the Site Certification Application, especially Section 3.4, for additional information.

<u>Emission Source</u>	<u>Size</u>	<u>Loc- ation</u>	<u>Reason for Exemption</u>	<u>Specific Exclusion</u>	<u>Calcs Attached?</u>
<b><i>Emissions from Tanks and Silos:</i></b>					
Hypochlorite Tank	3,500 gal	Raw Water	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Sulfuric Acid Tank	5,000 gal	Demin	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Sodium Hydroxide Tank	5,000 gal	Demin	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Ferric Sulfate Tank	6,400 gal	Raw Water	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Sulfuric Acid Tank	4,000 gal	Cooling Tower	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Hypochlorite Tank	10,000 gal	Cooling Tower	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Sulfuric Acid Tank	1,500 gal	Raw Water	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Main Turbine Oil Tank	6,400 gal	Boiler bldg	Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Dirty Turbine Oil Tank	10,000 gal	Boiler bldg	Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Diesel Fuel Tank	1,000 gal	Coal Yard	Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Aqueous Ammonia Tank	30,000 gal	Bag House	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Waste Oil Tank	650 gal	Ware-house	Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes

<u>Emission Source</u>	<u>Size</u>	<u>Loc- ation</u>	<u>Reason for Exemption</u>	<u>Specific Exclusion</u>	<u>Calcs Attached?</u>
Opti-Meen Tank	300 gal	Boiler bldg	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Optizeen Tank	300 gal	Boiler bldg	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Ferrosperse Tank	300 gal	Boiler bldg	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Calcium Chloride Tank	1,000 gal	Demin	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Calcium Sulfate Tank	1,000 gal	Demin	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Unleaded Gasoline Tank	250 gal	Coal Yard	Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Diesel Tank for Fire Pump	250 gal	CP Intake	Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Propane Tank 1	60000 gal		Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Propane Tank 2	60000 gal		Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Water Treatment Lime Silo			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Water Treatment Soda Ash Silo			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Tanks Storing Water	various	various	Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	

<u>Emission Source</u>	<u>Size</u>	<u>Loc- ation</u>	<u>Reason for Exemption</u>	<u>Specific Exclusion</u>	<u>Calcs Attached?</u>
Ion Exchange Tanks	various	various	Trivial per DARM-PER/V-15, Att. A	"Demineralized water tanks & demineralizer vents"	
Fiberglass Foamtrol Tank			Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Chemical Totes and Small Tanks Plant-wide	various	various	Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Transformer Oil Storage			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
<b>Combustion Sources:</b>					
Diesel Fire Pump	263 HP	CP Intake	Proposed exempt per 62-210.300 (3)	Exempt from permitting: "(v) fire and safety equipment"	
Propane Vaporizer			Trivial (Electric, no emissions)		
Portable Space Heaters			Proposed exempt per 62-210.300 (3)	Exempt from permitting: "(l) Equipment used exclusively for space heating, other than boilers."	
Mobile Equipment			Trivial per DARM-PER/V-15, Att. A	"Combustion emissions from propulsion of mobile sources"	
<b>Steam and Safety Vent Emissions:</b>					
Steam Air Ejector Pump			Trivial per DARM-PER/V-15, Att. A	"Steam vents and safety relief valves," "Steam Leaks"	
Steam Condenser System			Trivial per DARM-PER/V-15, Att. A	"Steam vents and safety relief valves," "Steam Leaks"	
Evaporators			Trivial per DARM-PER/V-15, Att. A	"Steam vents and safety relief valves," "Steam Leaks"	
Reboiler Vent			Trivial per DARM-PER/V-15, Att. A	"Steam vents and safety relief valves," "Steam Leaks"	
Ash and Lime Handling Systems Pressure/ Vacuum Relief Valves			Trivial per DARM-PER/V-15, Att. A	"Steam vents and safety relief valves"	

<u>Emission Source</u>	<u>Size</u>	<u>Loc- ation</u>	<u>Reason for Exemption</u>	<u>Specific Exclusion</u>	<u>Calcs Attached?</u>
Other Process and Safety Vents Plant-wide			Trivial per DARM-PER/V-15, Att. A	"Steam vents and safety relief valves," "Steam Leaks"	
<b>Maintenance Activities:</b>					
Parts Washer			Proposed exempt per 62-210.300 (3)	Exempt from permitting: "(x) Degreasing units using heavier-than-air vapors exclusively, except any such unit using HAP."	
Aerosol Can Use/Disposal			Trivial per DARM-PER/V-15, Att. A	"Plant maintenance and upkeep activities," "Repair or maintenance shop activities"	
Glove Box			Trivial per DARM-PER/V-15, Att. A	"Plant maintenance and upkeep activities," "Repair or maintenance shop activities"	
Welding Operations			Trivial per DARM-PER/V-15, Att. A	"Plant maintenance and upkeep activities," "Repair or maintenance shop activities"	
Metalworking Operations			Trivial per DARM-PER/V-15, Att. A	"Plant maintenance and upkeep activities," "Repair or maintenance shop activities"	
Transformer Maintenance			Trivial per DARM-PER/V-15, Att. A	"Plant maintenance and upkeep activities," "Repair or maintenance shop activities"	
Landscaping/ Architectural Coatings/ Facility Upkeep	(includes street sweeping)		Trivial per DARM-PER/V-15, Att. A	"Plant maintenance and upkeep activities"	
<b>Other processes:</b>					
Hydrogen from Turbine Seal			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
CEMS Cylinder Use			Trivial per DARM-PER/V-15, Att. A	"Vents from CEMS and other analyzers"	
Other Gas Cylinder Use			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Oil Water Separator			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Office Activities			Trivial per DARM-PER/V-15, Att. A	"Consumer use of office equipment and products"	

<u>Emission Source</u>	<u>Size</u>	<u>Loc- ation</u>	<u>Reason for Exemption</u>	<u>Specific Exclusion</u>	<u>Calcs Attached?</u>
Bench-scale Lab equipment			Trivial per DARM-PER/V-15, Att. A	"Bench-scale laboratory equipment used for physical or chemical analysis, but not lab hoods or vents"	
Lab fume hoods			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Transfer of Calcium Chloride Bags			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Road Dust			[Counted as emissions source - listed	under coal, lime, ash handling systems]	
Filter Press			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Lube Oil Vent			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Seal Oil Vent			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Cooling Tower			Proposed exempt per 62.213.430 (6)	Potential to emit <500 lb/hr Pb, <1000 lb/yr indiv. HAP, <2500 lb/yr total HAPs, <5 tpy other pollutant	Yes
Air Compressors			Trivial per DARM-PER/V-15, Att. A	"Air compressors and pneumatically operated equipment, including hand tools"	
Building Exhaust Fans			Trivial per DARM-PER/V-15, Att. A	"Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manufacturing/ industrial or commercial process"	
Waste Sumps and Runoff Ponds			Trivial per DARM-PER/V-15, Att. A	"Storage tanks, vessels, & containers holding or storing liquid substances that will not emit any VOC or HAP"	
Kitchen Vents			Trivial per DARM-PER/V-15, Att. A	"Non-commercial food preparation"	
Sewer Vents			Trivial per DARM-PER/V-15, Att. A	"Bathroom/ toilet vent emissions"	
Coal Additives			Trivial (no emissions)		

List of Equipment/Activities Regulated under Title VI

There are 3 air conditioning units located above the control room, serving the control and computer rooms. Each contains approximately 60 pounds of R22 (HCFC-22), regulated as a class II compound under Title VI.



INDIANTOWN COGENERATION - LIST OF APPLICABLE REQUIREMENTS

Indiantown Cogeneration hereby references the *Title V Core List*, provided by the Department effective 03/25/96, with the following comments:

Regulation	Comment
40 CFR 61	The Facility has no activities regulated under the NESHAP regulations
40 CFR 61, Subpart M	The Facility has no activities regulated under the National Emission Standard for Asbestos
40 CFR 82, Subpart B	The Facility does not service Motor Vehicle Air Conditioners
62-256	The Facility does not conduct Open Burning and Frost Protection
62-257	The Facility has no Asbestos Notification requirements
62-281	The Facility does not service Motor Vehicle Air Conditioners

In addition, the Facility identifies the following requirements:

PSD PERMIT REQUIREMENTS

General Conditions: As listed in permit. Facility is in compliance with the General Requirements.

Specific Conditions: See table below.

#	Specific Condition	Compliance Status
1	Beginning with the fifth quarter of operation, the Permittee shall submit to the Bureau of Air Regulation and the Air Section, Southeast District office, a quarterly report for the previous quarter showing the 12 month rolling average capacity factor for the generating unit. The 12 month rolling average capacity factor shall be calculated by dividing each unit's megawatt hours output of generation by the product of the official megawatt rating of the unit and the number of hours in the 12 month period.	Will Comply Once Applicable
2	Only coal, natural gas or No. 2 fuel oil shall be fired in the pulverized coal (PC) boiler and auxiliary boilers.	In compliance
3	The maximum heat input to the PC boiler shall not exceed 3,422 MMBtu/hr while firing coal.	In compliance
	The auxiliary boiler or boilers, shall not exceed a combined total of 342 MMBtu/hr while firing No. 2 fuel oil and 358 MMBtu/hr firing natural gas or propane.	In compliance
4	The PC boiler shall be allowed to operate continuously (8,760 hrs/yr). The auxiliary boiler or boilers shall operate a maximum of 5,000 hours at the combined total heat input	In compliance

Cite	Requirement	Compliance Status
	rates with up to 1,000 hrs/yr on No. 2 fuel oil with 0.05% sulfur, by weight, and the balance on natural gas or propane.	
	Fuel consumption must be continuously measured and recorded by fuel type (coal, natural gas or No. 2 fuel oil) for both the PC boiler and auxiliary boilers.	In compliance
5	Based on a permitted heat input of 3422 MMBtu/hr, the stack emissions from the main boiler shall not exceed any of the following limitations:	
	SO <sub>2</sub> 0.170 lb/MMBtu (basis only)	Not a limit
	SO <sub>2</sub> 582 lb/hr	In compliance
	SO <sub>2</sub> 2549 ton/yr	In compliance
	NO <sub>x</sub> 0.170 lb/MMBtu (basis only)	Not a limit
	NO <sub>x</sub> 582 lb/hr	In compliance
	NO <sub>x</sub> 2549 ton/yr	In compliance
	PM 0.018 lb/MMBtu (basis only)	Not a limit
	PM 61.6 lb/hr	In compliance
	PM 270 ton/yr	In compliance
	PM10 0.018 lb/MMBtu (basis only)	Not a limit
	PM10 61.6 lb/hr	In compliance
	PM10 270 ton/yr	In compliance
	CO 0.110 lb/MMBtu (basis only)	Not a limit
	CO 376 lb/hr	In compliance
	CO 1649 ton/yr	In compliance
	VOC 0.0036 lb/MMBtu (basis only)	Not a limit
	VOC 12.32 lb/hr	In compliance
	VOC 54.0 ton/yr	In compliance
	H2SO4 0.0004 lb/MMBtu (basis only)	Not a limit
	H2SO4 1.45 lb/hr	In compliance
	H2SO4 6.51 ton/yr	In compliance
	Be 2.7E-6 lb/MMBtu (basis only)	Not a limit
	Be 0.0094 lb/hr	In compliance
	Be 0.041 ton/yr	In compliance
	Hg 1.14E-5 lb/MMBtu (basis only)	Not a limit
	Hg 0.039 lb/hr	In compliance
	Hg 0.17 ton/yr	In compliance
	Pb 1E-5 lb/MMBtu (basis only)	Not a limit
	Pb 0.034 lb/hr	In compliance
	Pb 0.15 ton/yr	In compliance
	F 0.0015 lb/MMBtu (basis only)	Not a limit
	F 5.08 lb/hr	In compliance
	F 22.3 ton/yr	In compliance
	As 5.1E-5 lb/MMBtu (basis only)	Not a limit
	As 0.18 lb/hr	In compliance
	As 0.77 ton/yr	In compliance
6	The 0.170 lb/MMBtu NO <sub>x</sub> emission rate is the basis for the above maximum emission limitation. The permittee is allowed to use any technology (e.g., SNCR, SCR, or combustion controls) to achieve the NO <sub>x</sub> limitation. Should a technology be chosen which does not meet the specified NO <sub>x</sub> limits, the permittee must apply whatever technologies deemed necessary to ensure that the NO <sub>x</sub> limitation is met.	In compliance

Cite	Requirement	Compliance Status
	Plans and specifications must be submitted to DEP's Bureau of Air Regulation in Tallahassee for review within 90 days after they become available.	In compliance
7	NH <sub>3</sub> (Ammonia) - Slip from exhaust gases shall not exceed 50 ppmv.	In compliance
8	Visible Emissions (VE) from each baghouse exhaust shall not exceed 10% opacity (six minute average).	In compliance
	No VE during lime silo loading operations (i.e., less than 5% opacity).	In compliance
	VE from the ash handling baghouse shall not exceed a particulate limit of 0.010 grains/acf and VE of 5% opacity.	In compliance
9	The auxiliary boiler or boilers, rated at up to a combined total of 358 MMBtu/hr (Natural Gas and propane) and a combined total of 342 MMBtu/hr (No. 2 fuel oil), shall be limited to a maximum of 5,000 hours/year at the combined total heat input rates with up to 1,000 hrs/yr firing No. 2 fuel oil with 0.05% sulfur., by weight, and the balance firing natural gas or propane.	In compliance
	The maximum annual emissions will be as follows when firing No. 2 fuel oil for 1,000 hrs/yr:	
	NOx 68 lb/hr	Does not
	NOx 34 ton/yr	currently fire
	SO <sub>2</sub> 18 lb/hr	No. 2 fuel oil
	SO <sub>2</sub> 9 ton/yr	
	PM 1.4 lb/hr	
	PM 0.7 ton/yr	
	PM10 1.4 lb/hr	
	PM10 0.7 ton/yr	
	CO 48 lb/hr	
	CO 24 ton/yr	
	VOC 0.62 lb/hr	
	VOC 0.31 ton/yr	
	Be 4.0E-5 lb/hr	
	Be 2.0E-5 ton/yr	
	Hg 5.2E-4 lb/hr	
	Hg 2.6E-4 ton/yr	
	Pb 0.036 lb/hr	
	Pb 0.018 ton/yr	
	As 0.0068 lb/hr	
	As 0.0034 ton/yr	
10	Particulate emissions from the coal, and limestone handling facilities shall be controlled by enclosing all conveyors and conveyor transfer points (except those directly associated with the coal stacker/reclaimer for which an enclosure is operationally infeasible).	In compliance
	Fugitive emissions shall be tested as specified in Specific Condition No. 19.	In compliance
	Inactive coal storage piles shall be shaped, compacted, and oriented to minimize wind erosion, and covered.	See Compliance Schedule Page 1
	Water sprays or chemical wetting agents and stabilizers shall be applied to uncovered storage piles, roads, handling equipment, etc., during dry periods and as necessary to all facilities to maintain an opacity of less than or equal to 5 percent.	In compliance
	When adding, moving or removing coal from the coal pile, an opacity of 20% is allowed.	In compliance
	The lime handling system including the lime silos shall be maintained at a negative pressure while operating and the exhaust vented to a control system.	In compliance

Cite	Requirement	Compliance Status
	The flyash handling system (including transfer and silo storage) shall be totally enclosed and vented (including pneumatic system exhaust) through fabric filters.	In compliance
	Submit for approval to the Department, Bureau of Air Regulation in Tallahassee within thirty (30) days after it becomes available, copies of technical data pertaining to the selected particulate emissions control for the coal, and lime handling facilities. These data shall include, but not be limited to guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. The Department shall issue a response within 30 days of receipt of the technical data.	In compliance
11	Particulate emissions from bag filter exhausts from the coal, lime and flyash handling systems shall be limited to 0.010 gr/acf. A visible emission reading of 5% opacity or less may be used to establish compliance with this emission limit. A visible emission reading greater than 5% opacity will not create a presumption that the 0.010 gr/acf emission limit is being violated.	In compliance
	However, a visible emission reading greater than 5% opacity will require the permittee to perform a stack test.	In compliance
	Verification and recording of the above requirements for particulate emissions shall be done at least annually.	In compliance
12	Emissions shall not be visible more than 2 minutes in any 15 minute period. Compliance with fugitive emissions limitations from all transfer points will be determined by EPA/DER referenced Method 22 and opacity Method 9 (Appendix A, 40 CFR 60).	In compliance
13	Coal shall not be burned in the unit unless the spray dryer scrubber, fabric filter baghouse and other air pollution control devices are operating properly except as provided under 40 CFR Part 60, Subpart Da.	In compliance
	Any malfunctions of these air pollution control devices are to be recorded; including duration, cause, and description of repair.	In compliance
14	The fuel oil to be fired in the PC boiler and the auxiliary boiler shall be "new oil" which means an oil which has been refined from crude oil and has not been used.	Does not currently fire oil
	The quality of the No. 2 fuel oil used by the auxiliary boiler shall not contain more than 0.05% sulfur, by weight, based on each shipment analysis report.	Does not currently fire oil
15	No fraction of flue gas shall be allowed to bypass the air pollution control devices (PCD) system to reheat the gases exiting from the PCD system, if the bypass will cause emissions above the limits specified.	In compliance
	The percentage and amount of flue gas bypassing the PCD system shall be documented and records kept for a minimum of two years and must be available for FLDEP's inspection.	In compliance
16	All fuel oil and coal shipments shall have a shipment analysis for sulfur content, ash content, and heating value.	In compliance
	In the event continuous emission monitoring of sulfur dioxide is not performed, a daily analysis of coal sulfur content for the purpose of establishing the percentage reduction in potential sulfur emissions shall be made. Such determination shall be in accordance with EPA reference Method I9.	See Compliance Schedule Page 2
	Records of all the analyses shall be kept for FLDEP inspection for a minimum of two years after the data is recorded.	In compliance
17	The applicant shall comply with applicable requirements and provisions of the New Source Performance Standard for electric utility steam generating units (40 CFR 60 Part Da).	In compliance
18	Within 60 calendar days after achieving the permitted capacity at which the unit will be operated, but no later than 180 calendar days after initial startup, the permittee shall conduct stack tests for particulates, SO <sub>2</sub> , NO <sub>2</sub> , and visible emissions and furnish the Department a written report of the results of such tests within 45 days of completion of	See Compliance Schedule Page 4

Cite	Requirement	Compliance Status
	the tests. The tests shall be conducted in accordance with the provisions specified in 40 CFR 60 and shall be conducted within 90-100% of capacity.	
19	Compliance with emission limitation standards shall be demonstrated using EPA Methods, as contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources), or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants), or any other method approved by the Department and EPA, in accordance with F.A.C. Rule 17-2.700.	In compliance
20	Performance tests shall be conducted under such conditions as the Department shall specify based on representative performance of the facility. The permittee shall make available to the Department such records as may be necessary to determine the conditions of the performance tests.	In compliance
21	The permittee shall provide written notice to the Southeast District office 30 days prior to the tests in order to afford the Department the opportunity to have an observer present.	In compliance
22	Stack tests for particulates (PM and PM-10), NO <sub>x</sub> and SO <sub>2</sub> and visible emissions shall be performed annually.	In compliance
23	Stack emission monitoring shall include a flue gas oxygen meter to continuously monitor a representative sample of the flue gas. The oxygen monitor shall be used with automatic feedback controls to continuously maintain air/fuel ratio parameters at an optimum.	In compliance
	The permittee shall install and operate continuously monitoring devices for each main boiler exhaust for sulfur dioxide, nitrogen dioxide and opacity, including flue gas O <sub>2</sub> and/or CO <sub>2</sub> content. The monitoring devices shall meet the applicable requirements of Section 17-2, F.A.C., and 40 CFR 60 a minimum of 95% of the time the source is operating.	See Compliance Schedule Page 2
24	The permittee shall operate two continuous ambient air monitoring sites for sulfur dioxide in accordance with FLDEP quality control procedures and EPA reference methods in 40 CFR, Part 53, and two ambient air monitoring sites for suspended particulates, and one continuous NO <sub>x</sub> monitor site.	In compliance
	The ambient monitoring site locations shall be approved by the Department's Bureau of Air Monitoring and Assessment.	In compliance
	The frequency of operation of the particulate monitors shall be every six days commencing as specified by the Department's Bureau of Air Monitoring and Assessment.	In compliance
	During construction and operation, wind speed/wind direction will be recorded and reported with the ambient data.	In compliance
25	The permittee shall provide stack sampling facilities as required by Rule 17-2.700(4) FAC.	In compliance
26	The ambient monitoring program shall begin at least one year prior to initial start-up of the unit and shall continue for at least one year after commencement of commercial operation. The Department's Bureau of Air Monitoring and Assessment and the permittee shall review the results of the monitoring program annually and determine the necessity for the continuation of or modifications to the monitoring program.	In compliance
27	Prior to operation of the source, the permittee shall submit to the Department's Bureau of Air Regulation a plan or procedures that will allow the permittee to monitor emission control equipment efficiency and enable the permittee to return malfunctioning equipment to proper operation as expeditiously as possible.	See Compliance Schedule Page 3
28	Stack monitoring, fuel usage and fuel analysis data shall be reported to the Department's Southeast District Office on a quarterly basis commencing with the start of commercial operation in accordance with 40 CFR, Part 60, Section 60.7, and 60.49a and in accordance with Section 17-2.08, FAC.	In compliance

Cite	Requirement	Compliance Status
29	Utilizing the Aerometric Information and Retrieval System (AIRS) or other format approved in writing by the Department, ambient air monitoring data shall be reported to the Bureau of Air Monitoring and Assessment of the Department quarterly. Upon commencement of ambient air monitoring, such reports shall be due within 45 days of the end of the quarterly reporting period. Reporting and monitoring shall be in conformance with 40 CFR Parts 53 and 58.	In compliance
30	Beginning one month after certification, the permittee shall submit to the Department a quarterly status report briefly outlining progress made on engineering design and purchase of major pieces of air pollution control equipment. All reports and information required to be submitted under this condition shall be submitted to the Siting Coordination Office, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32301.	In compliance
31	In the event of a prolonged (thirty days or more) equipment malfunction or shutdown of air pollution control equipment, operation shall be allowed to resume and continue to take place under appropriate Department order, provided that the Permittee demonstrates such operation will be in compliance with all applicable ambient air quality standards and PSD increments. During such malfunction or shutdown, operation of the facility shall comply with all other requirements of this permit and all applicable state and federal emission standards not affected by the malfunction or shutdown which is the subject of the Order.	In compliance
	Operational stoppages exceeding two hours for air pollution control systems are to be reported to the Southeast District office.	In compliance
	Operational malfunctions which do not stop operation but may prevent compliance with emission limitations must also be reported to the Southeast District office.	In compliance

## FEDERAL REQUIREMENTS

Citation	Requirement	Compliance Status
40 CFR 60.42a-60.43a 60.44a (Subpart Da)	Federal NSPS Emission Limits - PC Boiler	See below
60.42a(a)(1)	Particulate Matter - 0.03 lb/MMBtu	In compliance
60.42a(b)	Opacity - 20%; 27% for one 6 minute period per hour	In compliance
60.43a(a)(2)	Sulfur Dioxide - 0.6 lb/MMBtu;	In compliance
60.43a(a)(2)	Sulfur Dioxide - 70% reduction	See Compliance Schedule Page 2
60.44a(a)(1)	Nitrogen Oxides - 0.6 lb/MMBtu	In compliance
	Federal Subpart Da - Monitoring Requirements	
40 CFR 60.47a(a)	The owner or operator of an affected facility shall install, calibrate, maintain and operate a continuous monitoring system, and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere, except where gaseous fuel is the only fuel combusted.	In compliance
40 CFR 60.47a(b)(3)	The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring sulfur dioxide emissions except where natural gas is the only fuel combusted, as follows:	See Compliance Schedule Page 2

Cite	Requirement	Compliance Status
	An "as fired" fuel monitoring system (upstream of coal pulverizer) meeting the requirements of Method 19 (Appendix A) may be used to determine potential sulfur dioxide emissions in place of a continuous sulfur dioxide emission monitor at the inlet to the sulfur dioxide control device.	See Compliance Schedule Page 2
40 CFR 60.47a(c)	The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere.	In compliance
40 CFR 60.47a(d)	The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the oxygen or carbon dioxide content of the flue gases at each location where sulfur dioxide or nitrogen oxides emissions are monitored.	In compliance
40 CFR 60.47a(e)	The continuous monitoring systems under paragraphs (b), (c), and (d) of this section are operated and data recorded during all periods of operation of the affected facility including periods of startup, shutdown, malfunction or emergency conditions, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments.	In compliance
40 CFR 60.47a(f)	The owner or operator shall obtain emission data for at least 18 hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement cannot be met with a continuous monitoring system, the owner or operator shall supplement emission data with other monitoring systems approved by the Administrator or the reference methods and procedures as described in paragraph (h) of this section.	In compliance
40 CFR 60.47a(g)	The 1 hour averages required under paragraph 60.13(h) are expressed in ng/J (lbs/million Btu) heat input and used to calculate the average emission rates under 60.46a. The 1 hour averages are calculated using the data points required under 60.13(b). At least two data points must be used to calculate the 1 hour averages.	In compliance
40 CFR 60.46a(e)	After the initial performance test required under 60.8, compliance with the sulfur dioxide emission limitations and percentage reduction requirements under 60.43a and the nitrogen oxides emission limitations under 60.44a is based on the average emission rate for 30 successive boiler operating days. A separate performance test is completed at the end of each boiler operating day after the initial performance test, and a new 30 day average emission rate for both sulfur dioxide and nitrogen oxides and a new percent reduction for sulfur dioxide are calculated to show compliance with the standards.	See Compliance Schedule Page 2
40 CFR 60.46a(g)	Compliance is determined by calculating the arithmetic average of all hourly emissions rates for SO <sub>2</sub> and NO <sub>x</sub> for the 30 successive boiler operating days, except for data obtained during startup, shutdown, malfunction (NO <sub>x</sub> only), or emergency conditions (SO <sub>2</sub> only). Compliance with the percentage reduction requirement for SO <sub>2</sub> is determined based on the average inlet and average outlet SO <sub>2</sub> emissions rates for the 30 successive boiler operating days.	See Compliance Schedule Page 2
40 CFR 60.46a(h)	If an owner or operator has not obtained the minimum quantity of emission data as required under 60.47a of this subpart, compliance of the affected facility with the emission requirements under 60.43a and 60.44a of this subpart for the day on which the 30 day period ends may be determined by the Administrator by following the applicable procedures in Section 7 of Method 19.	In compliance

Cite	Requirement	Compliance Status
	Federal NSPS Reporting Requirements	
40 CFR 60.7 (a)	Original NSPS notifications	In compliance
40 CFR 60.7(c)	Quarterly emission reports per 40 CFR 60.7(c)	In compliance
40 CFR 60.49a(b)	For the sulfur dioxide and nitrogen oxides, the following information is reported to the Administrator for each 24 hour period:	
	1. Calendar date.	In compliance
	2. The average sulfur dioxide and nitrogen oxide emissions rates (ng/J or lb/million Btu) for each 30 successive boiler operating days, ending with the last 30 day period in the quarter, reasons for non-compliance with the emission standards, and description of corrective actions taken.	In compliance
	3. Percent reduction of the potential combustion concentration of sulfur dioxide for each 30 successive boiler operating days, ending with the last 30 day period in the quarter; reasons for non-compliance with the standard, and description of corrective actions taken.	See Compliance Schedule Page 2
	4. Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 18 hours of operation of the facility, justification for not obtaining sufficient data, and description of corrective actions taken.	In compliance
	5. Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, malfunction (NOx only), emergency conditions (SO2 only), or other reasons, and justification for excluding data for reasons other than startup, shutdown, malfunction, or emergency conditions.	In compliance
	6. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.	In compliance
	7. Identification of times when hourly averages have been obtained based on manual sampling methods.	In compliance
	8. Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.	In compliance
	9. Description of any modifications to the continuous monitoring system which could affect the ability of the continuous monitoring system to comply with Performance Specifications 2 or 3.	Will Comply Once (if) Applicable
40 CFR 60.49a(c)	If the minimum quantity of emission data as required by 60.47a is not obtained for any 30 successive boiler operating days, the following information obtained under the requirements of 60.46a(h) is reported to the Administrator for that 30 day period.	In compliance
	1. The number of hourly averages available for outlet emission rates (no) and inlet emission rates (ni) as applicable.	
	2. The standard deviation of hourly averages for outlet emission rates (so) and inlet emission rates (si) as applicable.	
	3. The lower confidence limit for the mean outlet emission rate (Eo*) and the upper confidence limit for the mean inlet emission rate (Ei*) as applicable.	
	4. The applicable potential combustion concentration.	
	5. The ratio of the upper confidence limit for the mean outlet emission rate (Eo*) and the allowable emission rate (Estd) as applicable.	
40 CFR 60.49a(f),(g)	For any periods for which opacity, sulfur dioxide, or nitrogen oxides emissions data are not available, the owner or operator of the affected facility shall submit a signed statement indicating if any changes were made in	In compliance



Cite	Requirement	Compliance Status
	operation of the emission control system during the period of data unavailability. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.	
40 CFR 60.49a(h)	For the purposes of the reports required under 60.7, periods of excess emissions are defined as all 6 minute periods during which the average opacity exceeds the applicable opacity standards under 60.42a(b). Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the Administrator each calendar quarter.	In compliance
40 CFR 60.49a(i)	The owner or operator of an affected facility shall submit the written reports required under this section and Subpart A to the Administrator for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.	In compliance
40 CFR 60.43b(f)	Federal NSPS Emission Limits - Aux Boilers On and after the date on which the initial performance test is completed or is required to be completed under 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.	In compliance  (oil not currently fired - requirements for oil firing not applicable)
40 CFR 60.43b(g)	The particulate matter and opacity standards apply at all times, except during periods of startup, shutdown or malfunction.	In compliance (oil not currently fired)
	NSPS Limits for Aux Boilers	
40 CFR 60.42b(j)	Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) Following the performance testing procedures as described in §60.45b(c) or §60.45b(d), and following the monitoring procedures as described in §60.47b(a) or §60.47b(b) to determine sulfur dioxide emission rate or fuel oil sulfur content; or (2) maintaining fuel receipts as described in §60.49b(r).	In compliance
40 CFR 60.49b(r)	The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil under §60.42b(j)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil as defined in §60.41b. For the purposes of this section, the oil need not meet the fuel nitrogen content specification in the definition of distillate oil.	In compliance (oil not currently fired)
	Quarterly reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition was combusted in the affected facility during the preceding quarter.	In compliance (oil not currently fired)

Cite	Requirement	Compliance Status
40 CFR 60.44b(a)	Except as provided under paragraph (k) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides (expressed as NO <sub>2</sub> ) in excess of the following emission limits: [0.20 lb/million Btu for Natural gas and distillate oil units, high heat release rate (>70,000 Btu/hr/cu. ft.)]	In compliance
40 CFR 60.44b(h)	For purposes of paragraph (i) of this section, the nitrogen oxide standards under this section apply at all times including periods of startup, shutdown, or malfunction.	In compliance
40 CFR 60.44b(i)	Except as provided under paragraph (j) of this section, compliance with the emission limits under this section is determined on a 30-day rolling average basis.	In compliance
Federal Subpart Db - Monitoring Requirements		
40 CFR 60.46b(e)	To determine compliance with the emission limits for nitrogen oxides required under §60.44b, the owner or operator of an affected facility shall conduct the performance test as required under §60.8 using the continuous system for monitoring nitrogen oxides under §60.48(b).	In compliance
40 CFR 60.46b(e)(1)	For the initial compliance test, nitrogen oxides from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the nitrogen oxides emission standards under §60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.	In compliance
40 CFR 60.46b(e)(4)	Following the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, the owner or operator of an affected facility which has a heat input capacity of 73 MW (250 million Btu/hour) or less and which combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall determine compliance with the nitrogen oxides standards under §60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, nitrogen oxides emission data collected pursuant to §60.48b(g)(1) or §60.48b(g)(2) are used to calculate a 30-day rolling average on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the nitrogen oxides emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days.	In compliance
40 CFR 60.48b(a)	The owner or operator of an affected facility subject to the opacity standard under §60.43b shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.	Will Comply Once Applicable (oil not currently fired)
40 CFR 60.48b(b)	Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility subject to the nitrogen oxides standards under §60.44b shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system.	In compliance

Cite	Requirement	Compliance Status
40 CFR 60.48b(c)	The continuous monitoring systems required under paragraph (b) of this section shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.	In compliance
40 CFR 60.48b(d)	The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor required by paragraph (b) of this section and required under §60.13(h) shall be expressed in ng/J or lb/million Btu heat input and shall be used to calculate the average emission rates under §60.44b. The 1-hour averages shall be calculated using the data points required under §60.13(b). At least 2 data points must be used to calculate each 1-hour average.	In compliance
40 CFR 60.48b(e)	The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.	In compliance
40 CFR 60.48b(e)(2)	For affected facilities combusting coal, oil, or natural gas, the span value for nitrogen oxides is determined as follows: [500 ppm for gas or oil]	In compliance
40 CFR 60.48b(f)	When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.	In compliance
NSPS Subpart Db Recordkeeping/Reporting Requirements		
40 CFR 60.49b(a)	(a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by §60.7. This notification shall include: (1) The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility,	In compliance
40 CFR 60.49b(b)	The owner or operator of each affected facility subject to the sulfur dioxide, particulate matter, and/or nitrogen oxides emission limits under §§60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B	In compliance
40 CFR 60.49b(d)	The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for each calendar quarter. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.	In compliance
40 CFR 60.49b(f)	For facilities subject to the opacity standard under §60.43b, the owner or operator shall maintain records of opacity.	Will Comply Once Applicable (oil not currently fired)
40 CFR 60.49b(g)	Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the nitrogen oxides standards under §60.44b shall maintain records of the following information for each steam generating unit operating day: (1) Calendar date.	In compliance

Cite	Requirement	Compliance Status
	<p>(2) The average hourly nitrogen oxides emission rates (expressed as NO<sub>2</sub>) (ng/J or lb/million Btu heat input) measured or predicted.</p> <p>(3) The 30-day average nitrogen oxides emission rates (ng/J or lb/million Btu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.</p> <p>(4) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.</p> <p>(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.</p> <p>(6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.</p> <p>(7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.</p> <p>(8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.</p> <p>(9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.</p> <p>(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.</p>	
40 CFR 60.49b(h)	<p>The owner or operator of any affected facility in any category listed in paragraphs (h)(1) or (2) of this section is required to submit excess emission reports for any calendar quarter during which there are excess emissions from the affected facility. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report semiannually stating that no excess emissions occurred during the semiannual reporting period.</p> <p>(1) Any affected facility subject to the opacity standards under §60.43b(e) or to the operating parameter monitoring requirements under §60.13(i)(1).</p> <p>(3) For the purpose of §60.43b, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under §60.43b(f).</p> <p>(4) For purposes of §60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average nitrogen oxides emission rate, as determined under §60.46b(e), which exceeds the applicable emission limits in §60.44b.</p>	In compliance
40 CFR 60.49b(i)	<p>The owner or operator of any affected facility subject to the continuous monitoring requirements for nitrogen oxides under §60.48(b) shall submit a quarterly report containing the information recorded under paragraph (g) of this section. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.</p>	In compliance
40 CFR 60.49b(o)	<p>All records required under this section shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record.</p>	In compliance
40 CFR 60.252(c) (Subpart Y)	<p>Federal NSPS Emissions Limits - Fuel Handling System</p> <p>On and after the date on which the performance test required to be conducted by 60.8 is completed, an owner or operator subject to the provisions of this subpart shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer</p>	In compliance

Cite	Requirement	Compliance Status
	and loading system processing coal, gases which exhibit 20% opacity or greater.	
40 CFR 60 .254(b)(2) Sub. Y (coal)	Testing requirements for Material Handling Systems 1. Performance testing for opacity for affected facilities under Subpart Y.	In compliance
	Federal NSPS Recordkeeping	
40 CFR 60.7(b)	Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	In compliance
40 CFR 60.7(e)	Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.	In compliance

## FLORIDA REQUIREMENTS

Note: the Florida regulations are in the process of being moved and renumbered. The numbering of the citations listed below is based on the *Division of Air Resource Management Rule Repeals and Conforming Amendments Cross-Reference of Rule Number Changes*, dated March 24, 1996. The new citations have not been verified.

Citation	Requirement	Compliance Status
62-204.220(4)	Air Quality Models. Any required models shall use 40 CFR Part 51, Appendix W methods, unless otherwise approved in writing	In compliance
62-210.550	Stack Height Policy. GEP Stack height, modeling guidelines	In compliance
62-210.700	Excess Emissions. (1) Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.	In compliance
	(2) Excess emissions from existing fossil fuel steam generators resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.	In compliance
	(3) Excess emissions from existing fossil fuel steam generators resulting from boiler cleaning (soot blowing) and load change shall be permitted provided the duration of such excess emissions shall not exceed 3 hours in any 24-hour period and visible emissions shall not exceed Number 3 of the Ringelmann Chart (60 percent opacity), and providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized.	In compliance

Cite	Requirement	Compliance Status
	<p>A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.</p> <p>Visible emissions above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed by this subparagraph, for boiler cleaning and load changes, at units which have installed and are operating, or have committed to install or operate, continuous opacity monitors.</p> <p>Particulate matter emissions shall not exceed an average of 0.3 lbs. per million BTU heat input during the 3-hour period of excess emissions allowed by this subparagraph.</p>	
	(4) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.	In compliance
	(5) Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest.	In compliance
	(6) In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.	In compliance
62-212.300	General Preconstruction Review Requirements. (1)(a) No emissions unit or facility subject to this section shall be constructed or modified without obtaining an air construction permit	In compliance
62-212.400	Prevention of Significant Deterioration (PSD).	In compliance
62-212.400 (6)	Best Available Control Technology (BACT).	In compliance
62-212.500	Preconstruction Review for Nonattainment Areas.	Not applicable - Martin County is in attainment
62-273.300 (deleted)	Air Pollution Episodes. (3) Any person responsible for one or more air pollutant sources shall prepare and submit upon written request from the Department a standby plan which describes the action which will be taken by that person to reduce emissions when an episode is declared.	FLDEP has not requested a standby plan (repealed)
62-296.405	Fossil Fuel Steam Generators with more than 250 million Btu per Hour Heat Input. (1) Existing Emissions Units. (a) Visible emissions - 20 percent opacity except for either one six-minute period per hour during which opacity shall not exceed 27 percent, or one two-minute period per hour during which opacity shall not exceed 40 percent. The option selected shall be specified in the emissions unit's construction and operation permits. Emissions units governed by this visible emission limit shall test for particulate emission compliance annually and as otherwise required by Rule 62-297, F.A.C.	In compliance

Cite	Requirement	Compliance Status
	Emissions units governed by this visible emission limit shall test for particulate emission compliance annually and as otherwise required by Rule 62-297, F.A.C.	In compliance
	(b) Particulate Matter - 0.1 pound per million Btu heat input, as measured by applicable compliance methods.	In compliance
	(c) Sulfur Dioxide, as measured by applicable compliance methods. 2. Emissions units burning solid fuel. d. All other areas of the State - 6.17 pounds per million Btu heat input.	In compliance
	3. Owners of fossil fuel steam generators shall monitor their emissions and the effects of the emissions on ambient concentrations of sulfur dioxide, in a manner, frequency, and locations approved, and deemed reasonably necessary and ordered by the Department.	In compliance
62-296.405(1)(e)	Test methods for opacity, particulates, SO <sub>2</sub> , NO <sub>x</sub>	In compliance
62-296.405(1)(f)	CEMS Requirements for PC Boiler for opacity, SO <sub>2</sub> , NO <sub>x</sub> , O <sub>2</sub> /CO <sub>2</sub>	In compliance
62-296.405(1)(g)	CEMS Quarterly Reporting Requirements	In compliance
62-296.406	Fossil Fuel Steam Generators with less than 250 Million Btu per Hour Heat Input, New and Existing Emissions Units. (1) Visible Emissions - 20 percent opacity except for either one six-minute period per hour during which opacity shall not exceed 27 percent, or one two-minute period per hour during which opacity shall not exceed 40 percent. The option selected shall be specified in the emissions unit's construction and operation permits.	In compliance
	(2) Particulate Matter - Best available control technology in accordance with Rule 62-296.330, F.A.C., except for emissions units exempted pursuant to Rule 62-210.300(3), F.A.C.	In compliance
	(3) Sulfur Dioxide - Best available control technology in accordance with Rule 62-296.330, F.A.C., except for emissions units exempted pursuant to Rule 62-210.300(3), F.A.C.	In compliance
62-297	Stationary Sources Emissions Monitoring Establishes testing & sampling methods	In compliance





**BEST AVAILABLE COPY****Title V Core List**

Effective: 03/25/96

Document ID 07

**CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 03-21-96**

62-210.300, F.A.C.: Permits Required.

62-210.300(1), F.A.C.: Air Construction Permits.

62-210.300(2), F.A.C.: Air Operation Permits.

62-210.300(3), F.A.C.: Exemptions.

62-210.300(3)(a), F.A.C.: Full Exemptions.

62-210.300(3)(b), F.A.C.: Temporary Exemption.

62-210.300(5), F.A.C.: Notification of Startup.

62-210.300(6), F.A.C.: Emissions Unit Reclassification.

62-210.350, F.A.C.: Public Notice and Comment.

62-210.350(3), F.A.C.: Additional Public Notice Requirements for Facilities Subject to Operation Permits for Title V Sources.

62-210.360, F.A.C.: Administrative Permit Corrections.

62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.

62-210.650, F.A.C.: Circumvention.

62-210.900, F.A.C.: Forms and Instructions.

62-210.900(1) Application for Air Permit - Long Form, Form and Instructions.

62-210.900(5) Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.

**CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 03-20-96**

62-213.205, F.A.C.: Annual Emissions Fee.

62-213.400, F.A.C.: Permits and Permit Revisions Required.

62-213.410, F.A.C.: Changes Without Permit Revision.

62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.

62-213.420, F.A.C.: Permit Applications.

62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.

62-213.440, F.A.C.: Permit Content.

62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.

62-213.900(1) Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions.

**BEST AVAILABLE COPY****Title V Core List**

Effective: 03/25/96

**CHAPTER 62-256, F.A.C.: OPEN BURNING AND FROST PROTECTION FIRES, effective 11-30-94**

**CHAPTER 62-257, F.A.C.: ASBESTOS NOTIFICATION AND FEE, effective 03/24/96**

**CHAPTER 62-281, F.A.C.: MOTOR VEHICLE AIR CONDITIONING REFRIGERANT RECOVERY AND RECYCLING, effective 03-07-96**

**CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 03-13-96**

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.

62-296.320(3), F.A.C.: Industrial, Commercial, and Municipal Open Burning Prohibited.

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

n:\15permit\canned\core.lst

# COMPLIANCE REPORT AND PLAN

## Compliance Schedule

<u>Emission Unit:</u>		Coal Handling System (Coal Storage Pile)
<u>Subject Applicable Requirement:</u> Permit PSD-FL-168 Condition 10		
<u>Description of Applicable Requirement:</u>	Inactive coal storage piles shall be shaped, compacted, and oriented to minimize wind erosion, and covered.	
<u>Narrative description of Non-Compliance or Unknown Compliance:</u> Coal pile not yet shaped, compacted, covered.		
<b>Compliance Schedule</b>		
Step Number	Description of Task	Completion Date
1	Shape and compact the coal pile	7/31/96
2	Conduct a review to determine the most appropriate method of covering the coal pile	7/31/96
3	Sign a contract to purchase required materials/services to cover the coal pile	10/31/96
4	Cover the coal pile	1/31/97
<u>Progress Submittal Schedule:</u> Quarterly		
<u>Final Compliance Date:</u> 1/31/97		

**COMPLIANCE REPORT AND PLAN**

**Compliance Schedule**

<u>Emission Unit:</u> PC Boiler		
<u>Subject Applicable Requirement:</u> Permit PSD-FL-168 Special Condition 16		
<u>Description of Applicable Requirement:</u>	In the event continuous emission monitoring of sulfur dioxide is not performed, a daily analysis of coal sulfur content for the purpose of establishing the percentage reduction in potential sulfur emissions shall be made. Such determination shall be in accordance with EPA reference Method 19.	
<u>Narrative description of Non-Compliance or Unknown Compliance:</u> Facility has applied for alternative sulfur dioxide reduction monitoring method, per November 9 1995 letter. This alternative method has not yet been approved. Facility has implemented the alternative method.		
<b>Compliance Schedule</b>		
Step Number	Description of Task	Completion Date
1	Obtain approval of alternative SO2 monitoring method	Upon approval
Progress Submittal Schedule: Quarterly		
Final Compliance Date: Upon approval		

# COMPLIANCE REPORT AND PLAN

## Compliance Schedule

<u>Emission Unit:</u> Facility-wide		
<u>Subject Applicable Requirement:</u> Permit PSD-FL-168 Special Condition 27		
<u>Description of Applicable Requirement:</u>	Prior to operation of the source, the permittee shall submit to the Department's Bureau of Air Regulation a plan or procedures that will allow the permittee to monitor emission control equipment efficiency and enable the permittee to return malfunctioning equipment to proper operation as expeditiously as possible.	
<u>Narrative description of Non-Compliance or Unknown Compliance:</u> Procedures not yet submitted.		
<b>Compliance Schedule</b>		
Step Number	Description of Task	Completion Date
1	Generate and submit procedures	7/31/96
<u>Progress Submittal Schedule:</u> Quarterly		
<u>Final Compliance Date:</u> 7/31/96		

# COMPLIANCE REPORT AND PLAN

## Compliance Schedule

<u>Emission Unit:</u> Lime Handling System		
<u>Subject Applicable Requirement:</u> Permit PSD-FL-168 Condition 18		
<u>Description of Applicable Requirement:</u>	Within 60 calendar days after achieving the permitted capacity at which the unit will be operated, but no later than 180 calendar days after initial startup, the permittee shall conduct stack tests for particulates, SO <sub>2</sub> , NO <sub>2</sub> , and visible emissions and furnish the Department a written report of the results of such tests within 45 days of completion of the tests. The tests shall be conducted in accordance with the provisions specified in 40 CFR 60 and shall be conducted within 90-100% of capacity.	
<u>Narrative description of Non-Compliance or Unknown Compliance:</u> Test results not submitted for Method 9 testing of lime silo		
<b>Compliance Schedule</b>		
Step Number	Description of Task	Completion Date
1	Submit an addendum to the compliance test results showing the results of the Method 9 testing of the lime silo	7/31/96
Progress Submittal Schedule: Quarterly		
Final Compliance Date: 7/31/96		

Indiantown Cogeneration  
Attachment Document ID #08  
Compliance Certification

"I, the undersigned, am the responsible official as defined in Chapter 62-210.200, F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete."

Name: Stephen Sorrentino  
Title: Plant Director

Signature:

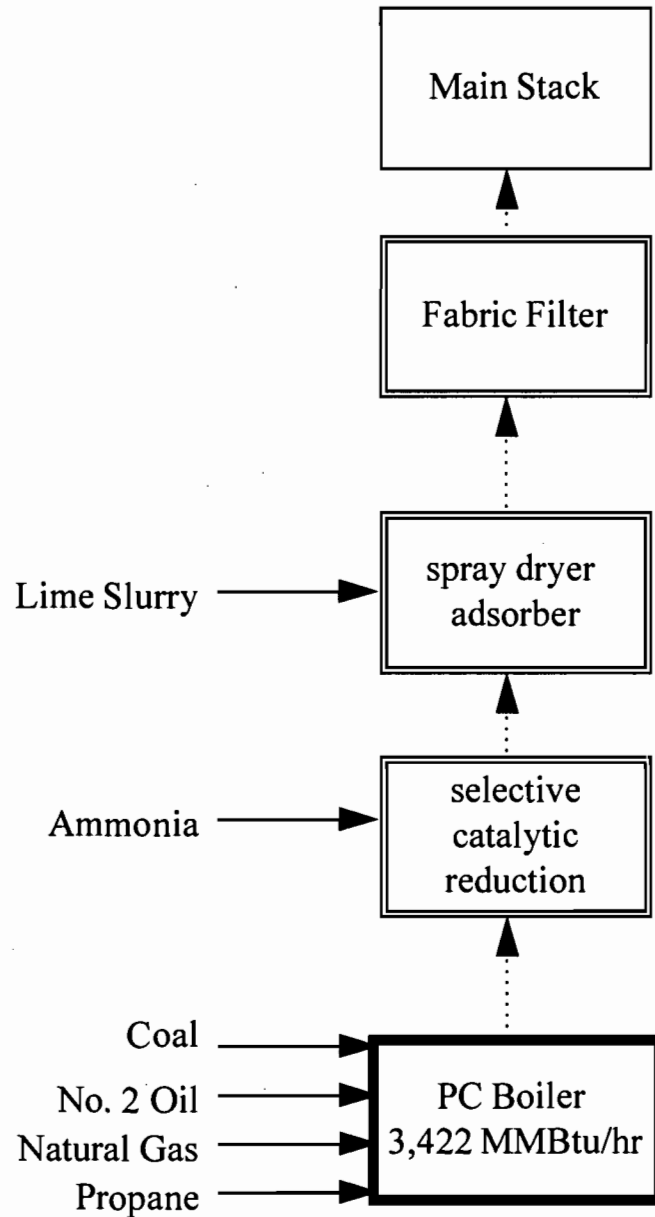
Stephen Sorrentino

Date:

6-3-94

001 Pulverized Coal Fired Boiler Process Flow Diagram

Document ID 09



.....  
Air Flow

Note: Facility does not currently fire No. 2 Oil



Fuel Analysis or Specification  
PC Boiler

Attached are the fuel specifications for coal, natural gas and No. 2 oil from the original Site Certification Application. For further information please refer to Section 3.3 of the Site Certification Application. Note that No. 2 oil is not currently fired. There is no set specification for propane.

Also attached is a typical fuel analysis for coal, the primary fuel. This analysis includes a sample for chlorine content.

**Table 3.3.1-1  
ULTIMATE ANALYSIS  
(WORST CASE FUEL)**

---

<u>COMPONENT</u>	<u>% (AS FIRED)</u>
Carbon	65.37%
Hydrogen	4.63%
Oxygen	4.69%
Nitrogen	1.16%
Sulfur	2.00%
Chlorine	0.15%
Ash	12.00%
Water	<u>10.00%</u>
TOTAL	100.00%
HHV	11,800 Btu/lb

---

Source: ICL, 1990

**Table 3.3.2-1  
NATURAL GAS<sup>1</sup> ANALYSIS**

---

**Ultimate Analysis**

---

<u>Element</u>	<u>Gravimetric Breakdown (%)</u>
Carbon	73.913
Hydrogen	24.047
Oxygen	1.249
Nitrogen	0.773
Sulfur	<u>0.018</u>
	100.000

---

**Proximate Analysis**

---

<u>Component</u>	<u>Gravimetric Breakdown (%)</u>
Volatile Matter	99.920
Fixed Carbon	0
Moisture <sup>2</sup>	0
Ash	0
Sulfur	<u>0.018</u>
	100.000

<sup>1</sup>The heat of combustion of the natural gas is estimated to be 950 Btu/cubic foot.

<sup>2</sup>Actual value is 0.00138 percent.

Source: Bechtel, 1990

**Table 3.3.3-1  
NO. 2 FUEL OIL ANALYSIS<sup>1</sup>**

---

**Ultimate Analysis**

---

<u>Element</u>	<u>Gravimetric Breakdown (%)</u>
Carbon	87.26
Hydrogen	12.67
Oxygen	0
Nitrogen	0.02
Sulfur	<u>0.05</u>
	100.00

---

**Proximate Analysis**

---

<u>Component</u>	<u>Gravimetric Breakdown (%)</u>
Volatile Matter	99.395
Fixed Carbon	0.425
Moisture	0.050
Ash	0.050
Sulfur	<u>0.050</u>
	100.000

<sup>1</sup>The heat of combustion of the No. 2 fuel oil is estimated to be 19,130 Btu/lb.

Source: Bechtel, 1990

BEST AVAILABLE COPY

Document ID 10



# COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306

SINCE 1908

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO  
216 OXMOOR CIRCLE, BIRMINGHAM, AL 35206  
TEL: (205) 942-3122  
FAX: (205) 942-0914

March 12, 1996

Indiantown Cogeneration, L.P.  
P.O. Box 1620  
Indiantown FL 34956

Sample identification by  
Indiantown Cogeneration, L.P.

Kind of sample reported to us Coal Sample - ICLP - 2/15/96

Sample taken at -----

Sample taken by Indiantown Cogeneration, L.P.

Date sampled -----

P. O. Number - ITBO-00019

Date received March 1, 1996

Analysis Report No. 73-60750

## PROXIMATE ANALYSIS

	As Received	Dry Basis		
% Moisture	5.54	xxxxx		
% Ash	5.57	5.90		
% Volatile	36.72	38.87		
% Fixed Carbon	<u>52.17</u>	<u>55.23</u>		
	100.00	100.00		
Btu/lb	13375	14159	MAP	15047
% Sulfur	0.90	0.95		
% Chlorine	0.11	0.12		

GRINDABILITY INDEX = 48

Respectfully submitted,  
COMMERCIAL TESTING & ENGINEERING CO.

*John T. Burt*  
Manager, Birmingham Laboratory



Description of Control Equipment  
PC Boiler

Attached are data sheets for the Pulverized Coal Low NO<sub>x</sub> Burners, Selective Catalytic Reduction System, Spray Dryer Reactors, and Main Baghouse Fabric Filter. These data sheets were originally submitted June 1993.

EQUIPMENT IDENTIFICATION DATA SHEET

DEPT. OF ENVIR. REG. CONDITIONS OF CERTIFICATION, PART II

EQUIPMENT NAME: Pulverized Coal Low NOx Burners (Main Boiler)  
Bechtel Equip. #s: JC-11A to 14-D (16 Total)

EQUIPMENT MODEL NUMBER: Foster Wheeler

FLOW RATES: Combustion Rate 198 mmBTU/hr (MAX) per burner

OTHER DESCRIPTIVE INFORMATION

Natural Gas Igniters of 65 mmBTU/hr capacity per ignitor  
Emergency Ignitor Fuel LPG (Propane)  
NOx emissions 1164 lb/hr with coal burners

**EQUIPMENT IDENTIFICATION DATA SHEET****DEPT. OF ENVIR. REG. CONDITIONS OF CERTIFICATION, PART II**

**EQUIPMENT NAME:** Selective Catalytic Reduction System  
Bechtel Equip. #: BA-S01

**EQUIPMENT MODEL NUMBER:** Siemens(through Foster Wheeler contract)

**FLOW RATES:** Flue Gas Flow Rate: 3,332,000 lb/hr  
Gas Temperature: 690 deg F  
Inlet NOx: 1164 lb/hr  
Outlet NOx: 582 lb/hr (MAX)

**OTHER DESCRIPTIVE INFORMATION**

Ammonia Slip less than 50 ppmv at the stack

Ammonia less than 140 lb/hr of Anhydrous Ammonia



**EQUIPMENT IDENTIFICATION DATA SHEET****DEPT. OF ENVIR. REG. CONDITIONS OF CERTIFICATION, PART II**

**EQUIPMENT NAME:** Spray Dryer Reactors (2) (Boiler Flue Gas)  
Bechtel Equipment Nos: JP-H16A and J-H16B

**EQUIPMENT MODEL NUMBER:** ABB/Flakt

**FLOW RATES:**

@Inlet: Max Rating: Flue Gas 2,015,190 lb/hr - 683,465 ACFM  
@Inlet: Normal Rating: Flue Gas 1,980,603 lb/hr - 621,330 ACFM  
Normal Lime Consumption: 7120 pounds per hour

**OTHER DESCRIPTIVE INFORMATION**

Two(2) spray drier reactor vessels each with three rotary atomizers with variable inlet dispersers for injecting lime slurry into flue gas stream to react with and remove SO<sub>2</sub> from gases. Each reactor will treat approximately 50% of the flue gas exiting the steam generators air heater discharge.

Max Emission: 582 lb/hr SO<sub>2</sub> @ 100% load

**EQUIPMENT IDENTIFICATION DATA SHEET****DEPT. OF ENVIR. REG. CONDITIONS OF CERTIFICATION, PART II**

EQUIPMENT NAME: Main Baghouse Fabric Filter (Boiler Flue Gas)  
Bechtel Equipment # JP-F04

EQUIPMENT MODEL NUMBER: ABB/Flakt 2X6 S 12X35 RA 3663X32(576)

FLOW RATES:

Inlet Flue Gas Max Rating: 4,230,063 lb/hr - 1,129,763 ACFM  
Inlet Flue Gas Normal Rating: 4,095,579 lb/hr - 1,076,305 ACFM

OTHER DESCRIPTIVE INFORMATION

Reverse air baghouse consisting of twelve (12) independent filter compartments, each compartment with 576 filter bags, each bag 12" in diameter by 35 ft long.

Baghouse filters 100% of flue gas exiting the two(2) spray drier reactors.

Air to Cloth Ratio: 2 feet per minute (includes reverse air flow with 2 compartments out of service)

Particulate Emissions: 61.6 pounds per hour

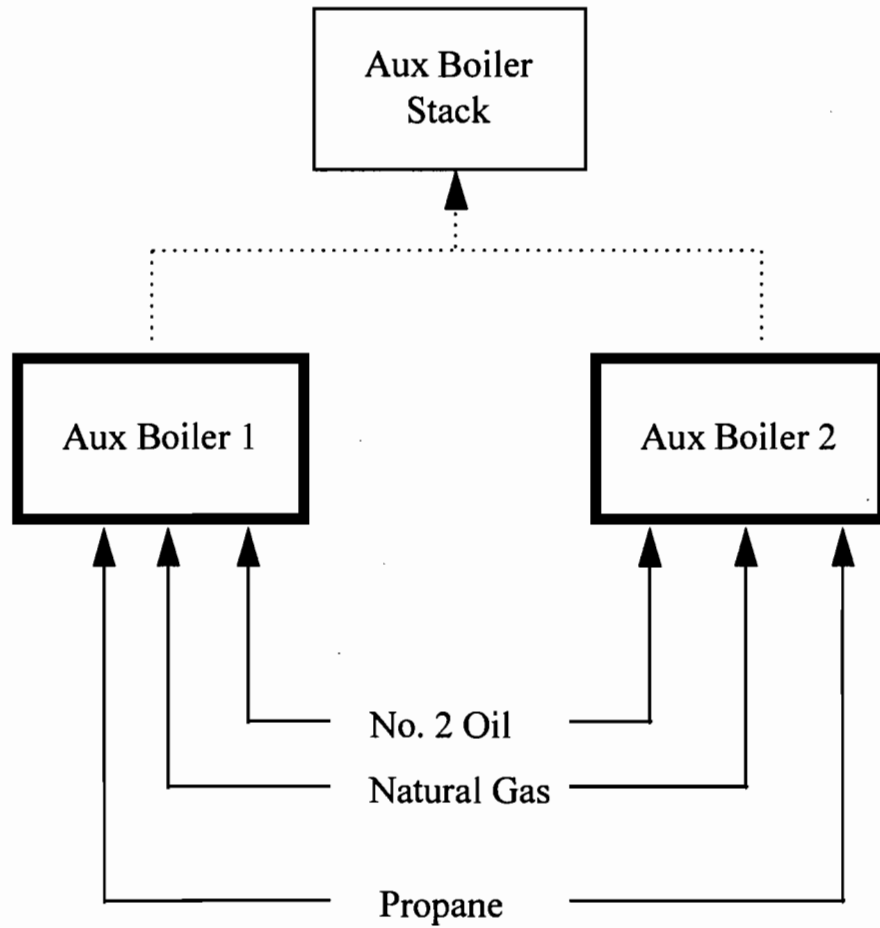
Description of Stack Sampling Facilities  
PC Boiler

There are four six-inch test ports spaced at 90-degree intervals around the flue at an elevation of approximately 250 feet above grade. Access to the test platform is by manlift. For a schematic of the sampling ports and sampling points, please refer to Section 4-1 in the compliance test report.

Procedures for Startup and Shutdown  
PC Boiler

Operational controls of the PC Boiler are designed and operated to minimize periods of excess emissions during startup and shutdown. Equipment is designed to comply with Special Condition 13 of the PSD Permit/Permit to Construct, which states that "Coal shall not be burned in the unit unless the spray dryer scrubber, fabric filter baghouse and other air pollution control devices are operating properly except as provided under 40 CFR Part 60, Subpart Da." The SCR, SDA, and fabric filter baghouse systems are operated for all periods when the temperature is adequate to ensure proper operation. Opacity, NO<sub>2</sub>, and SO<sub>2</sub> are monitored on a continuous basis and the facility operators control the system to keep emissions to a minimum. Natural gas, a low-sulfur, low-ash fuel, is used as the primary fuel for light-off, startup, load change, and shutdown; coal is burned only when there is adequate temperature to assure complete combustion.

The facility is operated to comply with Florida regulation 62-210.700, which provides guidelines for emissions during startup, shutdown, and malfunction.



Note: Facility does not currently fire No. 2 Oil

Air Flow

Fuel Analysis or Specification  
Aux Boilers

Attached are the fuel specifications for natural gas and No. 2 oil from the original Site Certification Application. For further information please refer to Section 3.3 of the Site Certification Application. Note that No. 2 oil is not currently fired. There is no set specification for propane.

**Table 3.3.2-1  
NATURAL GAS<sup>1</sup> ANALYSIS**

---

**Ultimate Analysis**

---

<u>Element</u>	<u>Gravimetric Breakdown (%)</u>
Carbon	73.913
Hydrogen	24.047
Oxygen	1.249
Nitrogen	0.773
Sulfur	<u>0.018</u>
	100.000

---

**Proximate Analysis**

---

<u>Component</u>	<u>Gravimetric Breakdown (%)</u>
Volatile Matter	99.920
Fixed Carbon	0
Moisture <sup>2</sup>	0
Ash	0
Sulfur	<u>0.018</u>
	100.000

<sup>1</sup>The heat of combustion of the natural gas is estimated to be 950 Btu/cubic foot.

<sup>2</sup>Actual value is 0.00138 percent.

Source: Bechtel, 1990

**Table 3.3.3-1  
NO. 2 FUEL OIL ANALYSIS<sup>1</sup>**

---

**Ultimate Analysis**

---

<u>Element</u>	<u>Gravimetric Breakdown (%)</u>
Carbon	87.26
Hydrogen	12.67
Oxygen	0
Nitrogen	0.02
Sulfur	<u>0.05</u>
	100.00

---

**Proximate Analysis**

---

<u>Component</u>	<u>Gravimetric Breakdown (%)</u>
Volatile Matter	99.395
Fixed Carbon	0.425
Moisture	0.050
Ash	0.050
Sulfur	<u>0.050</u>
	100.000

<sup>1</sup>The heat of combustion of the No. 2 fuel oil is estimated to be 19,130 Btu/lb.

Source: Bechtel, 1990



Description of Control Equipment  
Aux Boilers

The Aux Boilers have no specific add-on controls. Emissions are controlled through combustion controls, and the use of low sulfur, low ash fuels (natural gas and propane, with the potential to burn No. 2 oil in the future). For additional information, please see the BACT discussions in Sections 3.4.3 and 10.1.5A of the original Site Certification Application.

Description of Stack Sampling Facilities  
Aux Boilers

No stack testing is required for the Aux Boilers; however, continuous monitoring of  $\text{NO}_x$  is performed. The sampling locations/ports for this monitoring are arranged as detailed in the CEM certification protocol and certification test report.

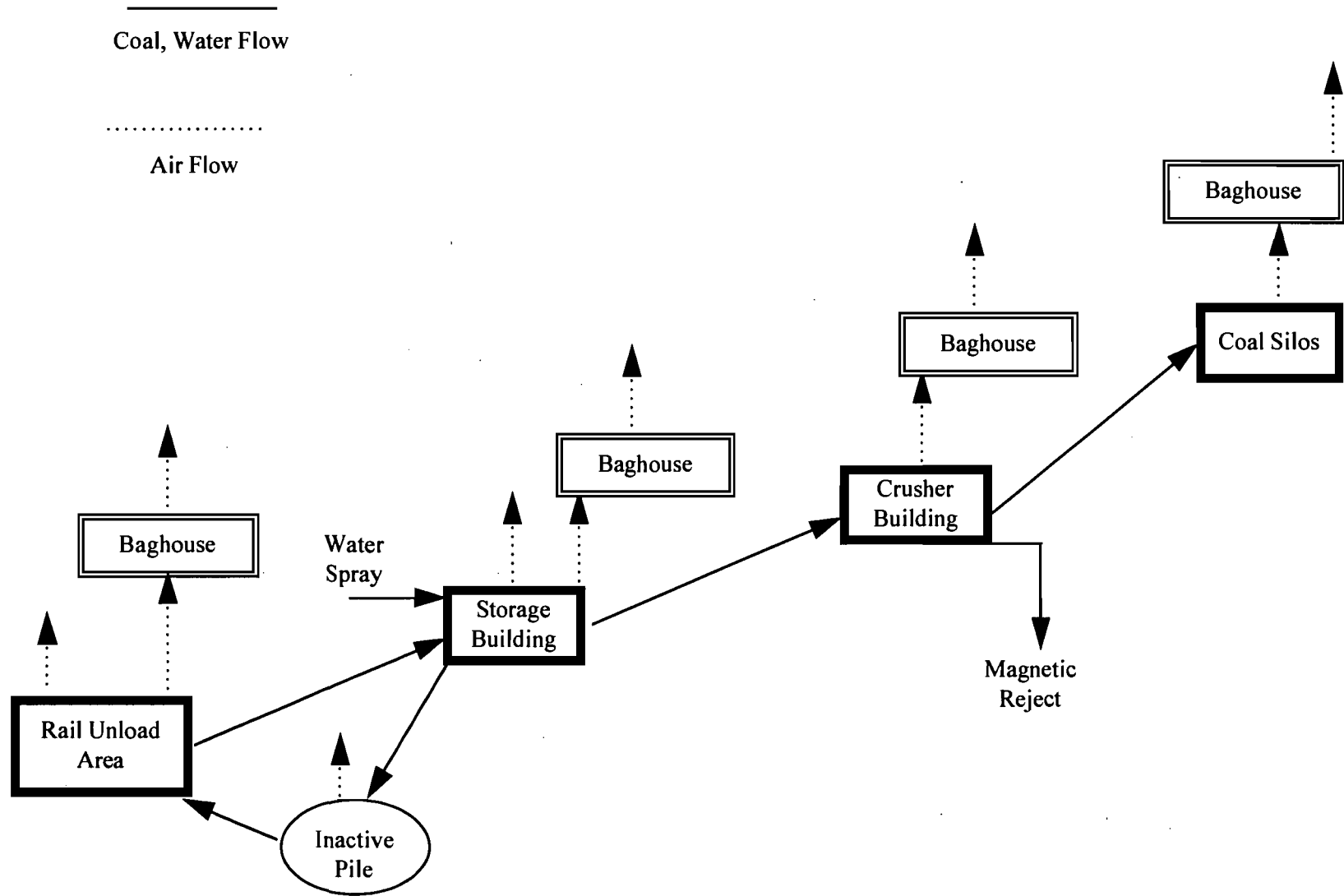
Procedures for Startup and Shutdown  
Aux Boilers

Operational controls of the Aux Boilers are designed and operated to minimize periods of excess emissions during startup and shutdown. Opacity and NO<sub>x</sub> are monitored on a continuous basis and the facility operators control the system to keep emissions to a minimum. Natural gas, a low-sulfur, low-ash fuel, is used as the primary fuel these boilers.

The facility is operated to comply with Florida regulation 62-210.700, which provides guidelines for emissions during startup, shutdown, and malfunction.

004 Coal Handling System Process Flow Diagram

Document ID 19



Description of Control Equipment  
Coal Handling System

Attached is the data sheet for the Coal Handling Vent Filters.



# SUBMITTAL COVER SHEET

Phillips Industries Inc.  
843 Indianapolis, Avenue  
Lebanon, Indiana 46052

FAN GROUP/LAU DIVISION

FOR:  Reference  Approval  Revised Print

Customer FMC-Material Handling Systems

Project Indiantown Cogeneration

Customer Order No. C76031

Architect \_\_\_\_\_

Bayley Order No. 365750, 367405

Engineer Bechtel

Submittal Date 5/17/93

Submitted by \_\_\_\_\_

Approved by \_\_\_\_\_

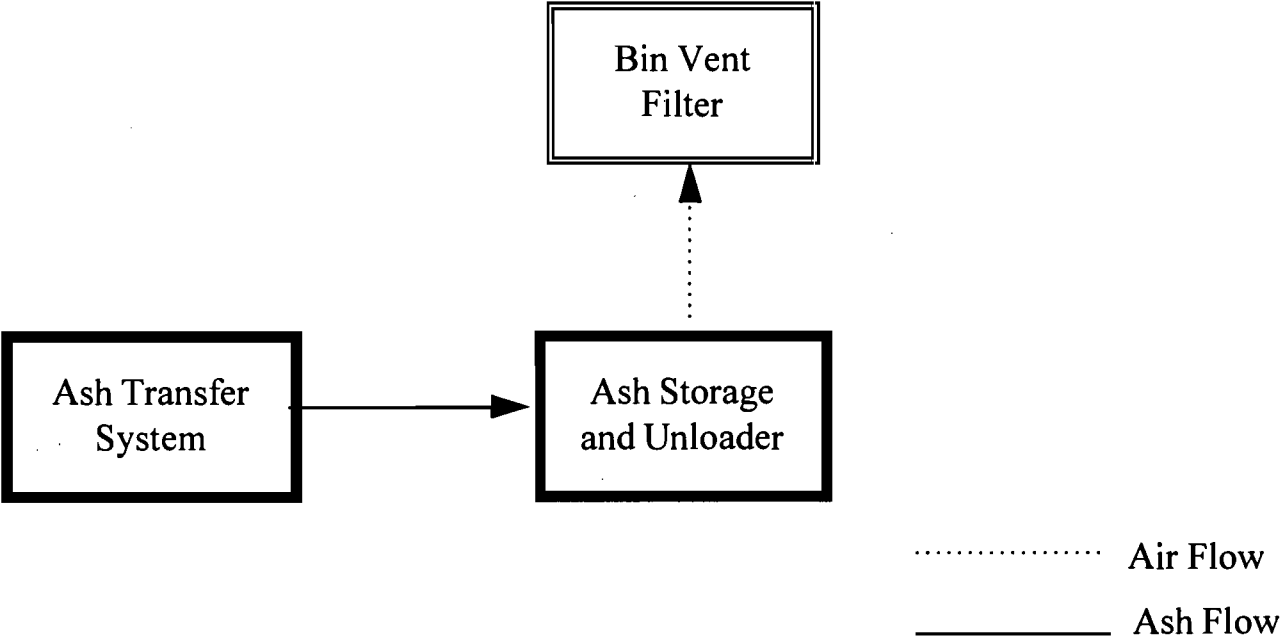
Revision Date \_\_\_\_\_

	JK-H-10	JK-H-27	JK-H-41	JK-H-50				
TAG Number	System #1 Bldg	System #2 Storage Area	System #3 Crusher	System #4 Top of Silo				
Quantity	1	1	1	1				
Model No.	BC222-80	EX296AH	BC270	BC222-90				
CFM	8600	6600	15,000	10,000				
S.P.	13.5	12.0	12.0	14.0				
O.V.	3800	4188	3570	3925				
Fan BHP	25.3	18.8	36.0	29.5				
Fan RPM	2750	1638	2120	2790				
Motor HP	40	25	50	40				
Enclosure	TEFC	TEFC	TEFC	Explosion Proof				
Voltage/Phase	460/3	460/3	460/3	460/3				
RPM	1780	1780	1780	1780				
Arrangement	9TL	9TL	9TL	9TL				
Frame	N/A	N/A	N/A	N/A				
Class/Width	IV/SWSI	N/A/SWSI	III/SWSI	IV/SWSI				
Rotation/Discharge	CW/UP	CW/UP	CW/UP	CCW/TH				
Drive Type	VBELT	VBELT	VBELT	VBELT				
Drive Service Factor	1.5	1.5	1.5	1.5				
Drawing Number	BA217-891	BA-013-683	BAH7-891	BA217-891				
Accessories:								
1. Drain	Y	Y	Y	Y				
2. Access Door	Y	Y	Y	Y				
3. Belt & Shaft 6D	Y	Y	Y	Y				
4. FLG Inlet/Outlet	Y	Y	Y	Y				
5. AMALA C Const	Y	Y	Y	Y				
6. Inlet Box	Y	Y	Y	Y				
7. Man. Inlet Dmpr.	Y	Y	Y	Y				
8. O.S. Shaft Bearings	N/A	Y	N/A	N/A				

Comments: Manually operated inlet damper is parallel blade type w/locking hand quadrant.

System #1 Fan is 80% Width

System #2 Fan is 90% Width



Description of Control Equipment  
Ash Handling System

Attached is the data sheet for the Flyash Storage Silo Vent Filter. This data sheet was originally submitted June 1993. The handwritten information is based on as-built specifications.



**EQUIPMENT IDENTIFICATION DATA SHEET****DEPT. OF ENVIR. REG. CONDITIONS OF CERTIFICATION, PART II**

EQUIPMENT NAME: Flyash Storage Silo Vent Filter  
Bechtel Equip. No: JN-H-020  
04

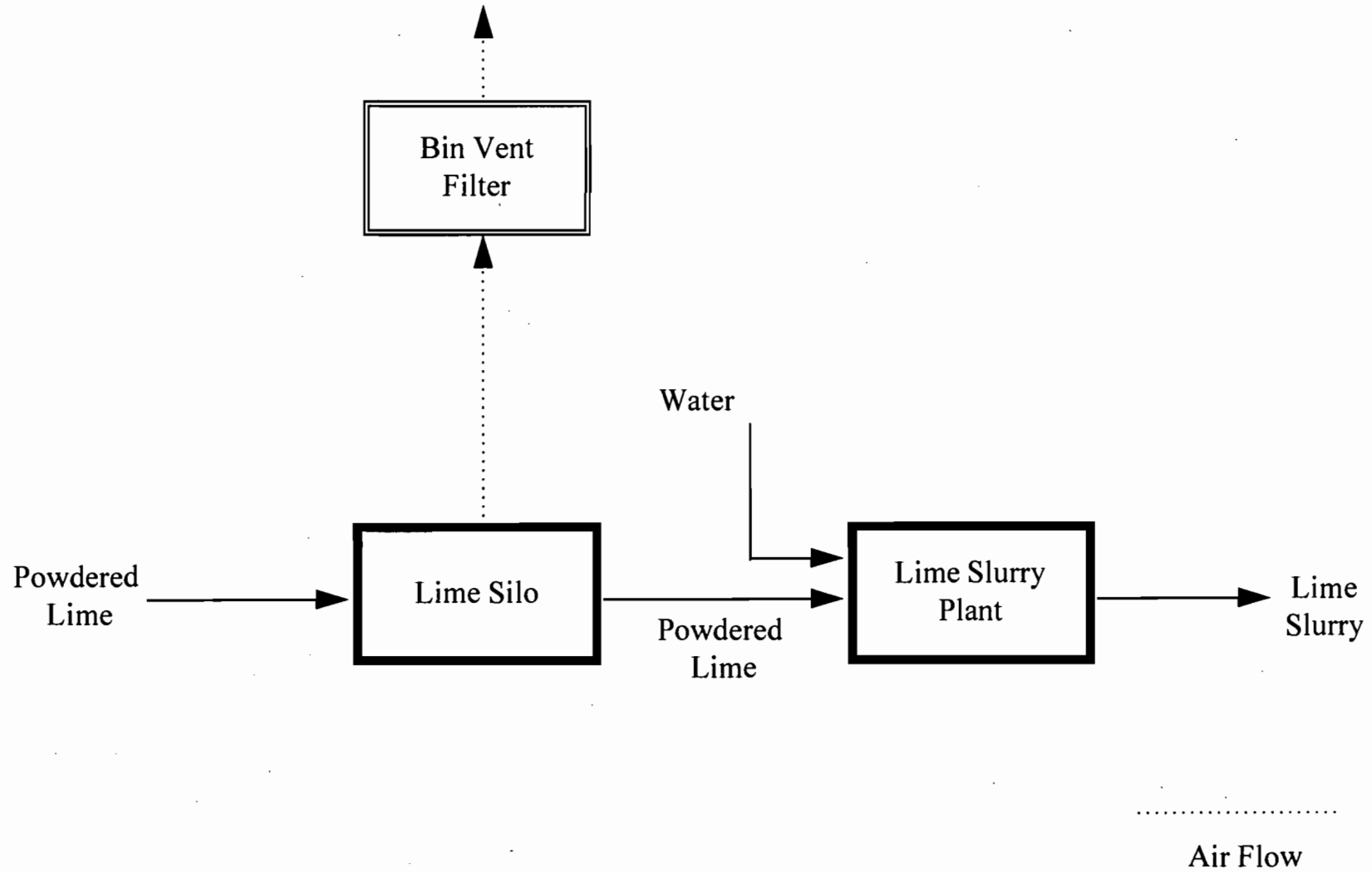
EQUIPMENT MODEL NUMBER: Micropul 289S-10-TRH

FLOW RATES: Air Flow Thru Filter(CFM): 8889 ACFM  
13607  
DESIGN PRESS =  $\pm 20$ " W.G.  
DESIGN TEMP = 200°F

OTHER DESCRIPTIVE INFORMATION

Discharge Grain Loading: 0.01 Grain/ACF @ Exhaust

Bag Filter Area: 3405 FT<sup>2</sup>



Description of Control Equipment  
Lime Handling System

Attached is the data sheet for the Flue Gas Cleaning System Lime Silo Vent Filter. This data sheet was originally submitted November/December 1993.

EQUIPMENT IDENTIFICATION DATA SHEET

DEPT. OF ENVIR. REG. CONDITIONS OF CERTIFICATION, PART II

EQUIPMENT NAME: Flue Gas Cleaning System Lime Silo Vent Filter

EQUIPMENT MODEL NUMBER: DCE, Inc. Model # UMA 250H-G5

FLOW RATES: 1,200 CFM at 6" WG

OTHER DESCRIPTIVE INFORMATION 0.01 grains/actual cubic ft.,  
opacity less than 5%, 250 sq. ft. woven poly cloth