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BUREAU OF AIR REGULATION

**TITLE V (REVISION) PERMIT APPLICATION  
FOR THE ADDITION OF LOW NO<sub>x</sub> BURNERS  
AND OVERFIRE AIR IN UNIT NO. 3**

***C.D. MCINTOSH, JR. POWER PLANT  
LAKELAND, FLORIDA***

**Prepared For:  
City of Lakeland, Department of Electric Utilities  
C.D. McIntosh, Jr. Power Plant  
3030 East Lake Parker Drive  
Lakeland, Florida 33805**

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

**February 2008**

**063-7630**

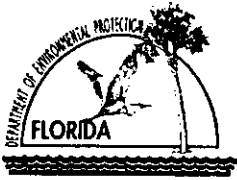
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**APPLICATION FOR AIR PERMIT – LONG FORM**



# Department of Environmental Protection

**Division of Air Resource Management**

**APPLICATION FOR AIR PERMIT - LONG FORM**

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BUREAU OF AIR REGULATION

## I. APPLICATION INFORMATION

**Air Construction Permit** – Use this form to apply for an air construction permit for a proposed project:

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

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

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

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

To ensure accuracy, please see form instructions.

### Identification of Facility

1. Facility Owner/Company Name: <b>City of Lakeland, Department of Electric Utilities</b>	
2. Site Name: <b>C.D. McIntosh, Jr. Power Plant</b>	
3. Facility Identification Number: <b>1050004</b>	
4. Facility Location...: Street Address or Other Locator: <b>3030 East Lake Parker Drive</b> City: <b>Lakeland</b> County: <b>Polk</b> Zip Code: <b>33805</b>	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

### Application Contact

1. Application Contact Name:	
2. Application Contact Mailing Address... Organization/Firm: <b>Lakeland Electric</b> Street Address: <b>501 East Lemon Street</b> City: <b>Lakeland</b> State: <b>FL</b> Zip Code: <b>33801-5079</b>	
3. Application Contact Telephone Numbers... Telephone: <b>(863) 834-6603</b> ext. Fax: <b>(863) 834-8187</b>	
4. Application Contact Email Address: <b>farzie.shelton@lakelandelectric.com</b>	

### Application Processing Information (DEP Use)

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

## APPLICATION INFORMATION

### Purpose of Application

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

#### **Air Construction Permit**

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

#### **Air Operation Permit**

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

#### **Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)**

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

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

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

### Application Comment


Application to incorporate Low-NOx burners and overfire air (Air Permit 1050004-018-AC) into Title V permit.



# APPLICATION INFORMATION

## Owner/Authorized Representative Statement

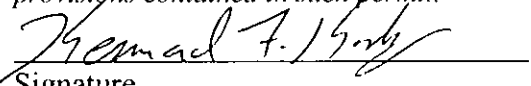
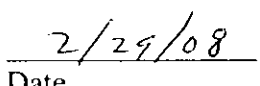

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name :
City of Lakeland / Lakeland Electric - Mr. Timothy Bachand
2. Owner/Authorized Representative Mailing Address...
Organization/Firm: Lakeland Electric
Street Address: 501 East Lemon Street, MS-MO1
City: Lakeland State: FL Zip Code: 33801
3. Owner/Authorized Representative Telephone Numbers...
Telephone: (863) 834-6633 ext. Fax: (863) 834-5760
4. Owner/Authorized Representative Email Address:
5. Owner/Authorized Representative Statement:
<p><i>I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.</i></p> <p>RE: Title V Permit Nos. 1050004-018-AC &amp; 1050004-016-AV Operation Permit Revision Application</p> <p> Signature</p> <p><u>3/3/08</u> Date</p>



**APPLICATION INFORMATION**

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Kennard F. Kosky</b> Registration Number: <b>14996</b>
2. Professional Engineer Mailing Address... Organization/Firm: <b>Golder Associates Inc.**</b> Street Address: <b>6241 NW 23rd Street, Suite 500</b> City: <b>Gainesville</b> State: <b>FL</b> Zip Code: <b>32653</b>
3. Professional Engineer Telephone Numbers... Telephone: <b>(352) 336-5600</b> ext. <b>516</b> Fax: <b>(352) 336-6603</b>
4. Professional Engineer Email Address: <b>kkosky@golder.com</b>
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i>  <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</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.</i>  <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input checked="" type="checkbox"/>, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i>  <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/>, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i>  <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i>   Signature   Date  (seal) 

\* Attach any exception to certification statement.

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



## FACILITY INFORMATION

### II. FACILITY INFORMATION

#### A. GENERAL FACILITY INFORMATION

##### Facility Location and Type

1. Facility UTM Coordinates...		2. Facility Latitude/Longitude...	
Zone 17	East (km) 409.0 North (km) 3106.2	Latitude (DD/MM/SS) 26/4/50 Longitude (DD/MM/SS) 81/55/32	
3. Governmental Facility Code:	4. Facility Status Code:	5. Facility Major Group SIC Code:	6. Facility SIC(s):
4	A	49	4911
7. Facility Comment : The McIntosh Power Plant consists of 3 fossil fuel fired-steam generators (FFFSG), 2 diesel powered generators, 1 gas turbine peaking unit, and 1 combustion turbine operating in combined cycle (Unit 5). FFFSG Units 1 and 2 are fired with No. 6 fuel oil and natural gas (distillate oil is used as an ignitor). FFFSG Unit 3 is primarily fired with coal, refuse derived fuel and petroleum coke. Unit 5 is a Westinghouse 501G combustion turbine and is primarily fired with natural gas with distillate oil as backup.			

##### Facility Contact

1. Facility Contact Name: <b>Bret Galbraith, Environmental Permitting</b>
2. Facility Contact Mailing Address... Organization/Firm: <b>Lakeland Electric</b> Street Address: <b>501 East Lemon Street</b> City: <b>Lakeland</b> State: <b>FL</b> Zip Code: <b>33801-5079</b>
3. Facility Contact Telephone Numbers: Telephone: <b>(863) 834-8180</b> ext. Fax: <b>(863) 834-8187</b>
4. Facility Contact Email Address: <b>Bret.Galbraith@lakelandelectric.com</b>

##### Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I. that is not the facility "primary responsible official."

1. Facility Primary Responsible Official Name:
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Facility Primary Responsible Official Telephone Numbers... Telephone: ( ) - ext. Fax: ( ) -
4. Facility Primary Responsible Official Email Address:

## FACILITY INFORMATION

### Facility Regulatory Classifications

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

1. <input type="checkbox"/> Small Business Stationary Source	<input type="checkbox"/> Unknown
2. <input type="checkbox"/> Synthetic Non-Title V Source	
3. <input checked="" type="checkbox"/> Title V Source	
4. <input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. <input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. <input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)	
7. <input type="checkbox"/> Synthetic Minor Source of HAPs	
8. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. <input type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. <input type="checkbox"/> Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
<p>12. Facility Regulatory Classifications Comment:  <b>Unit 1, Unit 2, Unit 3, and Unit 5 are regulated under Acid Rain, Phase II</b>  <b>Unit 2 is subject to NSPS Subpart D,</b>  <b>Unit 3 is subject to Subpart Da,</b>  <b>Unit 5 is subject to Subpart KKKK.</b></p> <p>State:  <b>Unit 1 is subject to 62-296.405</b>  <b>Unit 2, 3, and 5 are subject to 62-204.800</b>  <b>Unit 3 is subject to 62-212.400(6)</b></p>	

**FACILITY INFORMATION**

**List of Pollutants Emitted by Facility**

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
PM	A	N
PM10	A	N
VOC	A	N
SO2	A	N
H106	A	N
NOX	A	N
HAPS	A	N
HCI	A	N
SAM	A	N



## FACILITY INFORMATION

### C. FACILITY ADDITIONAL INFORMATION

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

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>Dec. 2006</u>
2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>Dec. 2006</u>
3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>June 14, 1996</u>

#### Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (existing permitted facility)
2. Description of Proposed Construction or Modification, or Plantwide Applicability Limit (PAL): <input type="checkbox"/> Attached, Document ID: _____
3. Rule Applicability Analysis: <input type="checkbox"/> Attached, Document ID: _____
4. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification (Rule 62-212.400(2), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(5)(h)5., F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(5)(e)1. and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

**FACILITY INFORMATION**

**Additional Requirements for FESOP Applications**

1. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.):  
 Attached, Document ID: \_\_\_\_\_  Not Applicable (no exempt units at facility)

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

1. List of Insignificant Activities (Required for initial/renewal applications only):  
 Attached, Document ID: \_\_\_\_\_  Not Applicable (revision application)
2. Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought):  
 Attached, Document ID: \_\_\_\_\_  
 Not Applicable (revision application with no change in applicable requirements)
3. Compliance Report and Plan (Required for all initial/revision/renewal applications):  
 Attached, Document ID: \_\_\_\_\_  
Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.
4. List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only):  
 Attached, Document ID: \_\_\_\_\_  
 Equipment/Activities On site but Not Required to be Individually Listed  
 Not Applicable
5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only) :  
 Attached, Document ID: \_\_\_\_\_  Not Applicable
6. Requested Changes to Current Title V Air Operation Permit:  
 Attached, Document ID: \_\_\_\_\_  Not Applicable

**Additional Requirements Comment**

## EMISSIONS UNIT INFORMATION

Section [1]

Unit No. 3

### III. EMISSIONS UNIT INFORMATION

**Title V Air Operation Permit Application** - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

**Air Construction Permit or FESOP Application** - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

**Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application** - Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

# EMISSIONS UNIT INFORMATION

Section [1]

Unit No. 3

## A. GENERAL EMISSIONS UNIT INFORMATION

### Title V Air Operation Permit Emissions Unit Classification

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

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

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

### Emissions Unit Description and Status

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

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

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

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

2. Description of Emissions Unit Addressed in this Section: **McIntosh Unit 3 – Fossil-Fuel-Fired Steam Generator (FFFSG)**

3. Emissions Unit Identification Number: **006**

4. Emissions Unit Status Code:  
**A**

5. Commence Construction Date:

6. Initial Startup Date:  
**1982**

7. Emissions Unit Major Group SIC Code:  
**49**

8. Acid Rain Unit?  
 Yes  
 No

9. Package Unit:  
Manufacturer:

Model Number:

10. Generator Nameplate Rating: **364 MW**

11. Emissions Unit Comment: **This emission unit is a coal-fired steam-generating unit which also co-fires refuse-derived fuel and petroleum coke.**



**EMISSIONS UNIT INFORMATION**

Section [1]

Unit No. 3

**Emissions Unit Control Equipment**

1. Control Equipment/Method(s) Description:  
PM – Electrostatic Precipitator (ESP), followed by  
SO<sub>2</sub> – Flue Gas Desulfurization (FGD) system.  
NO<sub>X</sub> – Low NO<sub>X</sub> burners (LNB).

2. Control Device or Method Code(s): 10, 67, and 205

**EMISSIONS UNIT INFORMATION**

Section [1]

Unit No. 3

**B. EMISSIONS UNIT CAPACITY INFORMATION****(Optional for unregulated emissions units.)****Emissions Unit Operating Capacity and Schedule**

1. Maximum Process or Throughput Rate:		
2. Maximum Production Rate:		
3. Maximum Heat Input Rate:	3,640 million Btu/hr	
4. Maximum Incineration Rate:	pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	24 hours/day 52 weeks/year	7 days/week 8,760 hours/year
6. Operating Capacity/Schedule Comment:	<p>Emission unit co-fires coal and coal/petroleum coke and/or RDF. Unit is also authorized to burn residual oil and gas. Heat input based on fuel flow sampling. The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5) F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.</p>	

**EMISSIONS UNIT INFORMATION**

Section [1]

Unit No. 3

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

(Optional for unregulated emissions units.)

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: <b>Site Plan</b>		2. Emission Point Type Code: <b>1</b>			
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <b>Exhausts through a single stack.</b>					
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:					
5. Discharge Type Code: <b>V</b>		6. Stack Height: <b>250feet</b>		7. Exit Diameter: <b>18feet</b>	
8. Exit Temperature: <b>125°F</b>		9. Actual Volumetric Flow Rate: <b>1,260,536 acfm</b>		10. Water Vapor: <b>%</b>	
11. Maximum Dry Standard Flow Rate: <b>dscfm</b>			12. Nonstack Emission Point Height: <b>feet</b>		
13. Emission Point UTM Coordinates... Zone: <b>17</b> East (km): <b>409.3</b> North (km): <b>3106.3</b>			14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)		
15. Emission Point Comment:					

**EMISSIONS UNIT INFORMATION**

Section [1]

Unit No. 3

**D. SEGMENT (PROCESS/FUEL) INFORMATION****Segment Description and Rate: Segment 1 of 4**

1. Segment Description (Process/Fuel Type): <b>Coal</b>		
2. Source Classification Code (SCC): <b>1-01-001-01</b>		3. SCC Units: <b>Tons</b>
4. Maximum Hourly Rate: <b>159.6</b>	5. Maximum Annual Rate: <b>1,398,096</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>3.3</b>	8. Maximum % Ash: <b>16</b>	9. Million Btu per SCC Unit: <b>23</b>
10. Segment Comment: <b>Up to 20 percent petroleum coke is authorized to be co-fired with coal.</b>		

**Segment Description and Rate: Segment 2 of 4**

1. Segment Description (Process/Fuel Type): <b>Oil</b>		
2. Source Classification Code (SCC): <b>1-01-004-01</b>		3. SCC Units: <b>1,000 Gallons Burned</b>
4. Maximum Hourly Rate: <b>24,268</b>	5. Maximum Annual Rate: <b>212,584</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>0.73</b>	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>150</b>
10. Segment Comment:		

**EMISSIONS UNIT INFORMATION**

Section [1]

Unit No. 3

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

**Segment Description and Rate: Segment 3 of 4**

1. Segment Description (Process/Fuel Type): <b>Coal/Petroleum Coke (80/20 weight basis)</b>		
2. Source Classification Code (SCC): <b>1-01-001-01</b>		3. SCC Units: <b>Tons</b>
4. Maximum Hourly Rate: <b>152.6</b>	5. Maximum Annual Rate: <b>1,336,776</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>3.3</b>	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>24</b>
10. Segment Comment:		

**Segment Description and Rate: Segment 4 of 4**

1. Segment Description (Process/Fuel Type): <b>Natural Gas</b>		
2. Source Classification Code (SCC): <b>1-01-006-01</b>		3. SCC Units: <b>Million Cubic Feet</b>
4. Maximum Hourly Rate: <b>3.56</b>	5. Maximum Annual Rate: <b>31,139</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>3.3</b>	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>1,024</b>
10. Segment Comment: <b>Natural gas or propane only or in combination with any other fuels or fuel combinations.</b>		

**EMISSIONS UNIT INFORMATION**

Section [1]

Unit No. 3

**E. EMISSIONS UNIT POLLUTANTS**

**List of Pollutants Emitted by Emissions Unit**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			EL

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**POLLUTANT DETAIL INFORMATION**

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**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

**Potential/Estimated Fugitive Emissions**

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

1. Pollutant Emitted: <b>CO</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 728 lb/hour                      3,188.6 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to                      tons/year			
6. Emission Factor: <b>0.20 lb/MMBtu</b>  Reference: <b>Permit 1050004-018-AC (PSD-FL-387).</b>		7. Emissions Method Code: <b>0</b>	
8.a. Baseline Actual Emissions (if Required): Tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Potential Actual Emissions (if Required): Tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <b>0.20 lb/mmBtu x 3,640 mmBtu/hr = 728.0 lb/hr</b> <b>728.0 lb/hr x 8,760 hr/yr ÷ 2,000 lb/ton = 3,188.6 ton/yr</b>			
11. Pollutant Potential/Estimated Fugitive Emissions Comment:			

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

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

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>0.20 lb/MMBtu</b>	4. Equivalent Allowable Emissions: <b>728 lb/hour      3,188.6 tons/year</b>
5. Method of Compliance: <b>Initial compliance test; CEMS 30-operating-day rolling average.</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Permit 1050004-018-AC (PSD-FL-387).</b>	

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour      tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour      tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	



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**G. VISIBLE EMISSIONS INFORMATION**

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

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

1. Visible Emissions Subtype: <b>VE20</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: <b>20 %</b> Exceptional Conditions: <b>27 %</b> Maximum Period of Excess Opacity Allowed: <b>6 min/hour</b>	
4. Method of Compliance: <b>Annual VE testing; EPA Method 9.</b>	
5. Visible Emissions Comment: <b>Title V Permit 1050004-016-AV.</b>	

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

1. Visible Emissions Subtype: <b>VE99</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions:                      %                      Exceptional Conditions: <b>100 %</b> Maximum Period of Excess Opacity Allowed: <b>60 min/hour</b>	
4. Method of Compliance: <b>None</b>	
5. Visible Emissions Comment: <b>Excess VE emissions allowed under FDEP Rule 62-210.700(1) and 40 CFR 60.8(c), and 60.11(c) for 2 hours (120 minutes) per 24-hour period for startup, shutdown, and malfunction.</b>	

**EMISSIONS UNIT INFORMATION**

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**H. CONTINUOUS MONITOR INFORMATION**

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

**Continuous Monitoring System:** Continuous Monitor 1 of 9

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>SO2</b>
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <b>Advanced Pollution Inst.</b> Model Number: <b>152</b> Serial Number: <b>139/176 and 172/156</b>	
5. Installation Date: <b>09 Nov 1994</b>	6. Performance Specification Test Date:
7. Continuous Monitor Comment: <b>CEM required pursuant to 40 CFR Part 75, Title V Permit No. 1050004-016-AV.</b>	

**Continuous Monitoring System:** Continuous Monitor 2 of 9

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>NOx</b>
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <b>Advanced Pollution Inst.</b> Model Number: <b>252</b> Serial Number: <b>165 and 136</b>	
5. Installation Date: <b>09 Nov 1994</b>	6. Performance Specification Test Date:
7. Continuous Monitor Comment: <b>CEM required pursuant to 40 CFR Part 75, Title V Permit No. 1050004-016-AV.</b>	

**EMISSIONS UNIT INFORMATION**

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**H. CONTINUOUS MONITOR INFORMATION**

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

**Continuous Monitoring System:** Continuous Monitor 3 of 9

1. Parameter Code: <b>VE</b>	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <b>United Science Inc.</b> Model Number: <b>500C</b> Serial Number: <b>0993688</b>	
5. Installation Date: <b>09 Nov 1994</b>	6. Performance Specification Test Date:
7. Continuous Monitor Comment: <b>CEM required pursuant to 40 CFR Part 75 and Title V Permit No. 1050004-016-AV.</b>	

**Continuous Monitoring System:** Continuous Monitor 4 of 9

1. Parameter Code: <b>CO2</b>	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <b>California Instruments</b> Model Number: <b>3300</b> Serial Number: <b>N3L2487T and N3L2490T</b>	
5. Installation Date: <b>09 Nov 1994</b>	6. Performance Specification Test Date:
7. Continuous Monitor Comment: <b>CEM required pursuant to 40 CFR Part 75.</b>	

**EMISSIONS UNIT INFORMATION**

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**H. CONTINUOUS MONITOR INFORMATION**

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

**Continuous Monitoring System:** Continuous Monitor 5 of 9

1. Parameter Code: <b>FLOW</b>	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <b>United Science Ultraflow</b> Model Number: <b>100</b> Serial Number: <b>1001060</b>	
5. Installation Date: <b>10 Nov 1995</b>	6. Performance Specification Test Date:
7. Continuous Monitor Comment: <b>Flow monitor required pursuant to 40 CFR Part 75.</b>	

**Continuous Monitoring System:** Continuous Monitor 6 of 9

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>SO2</b>
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <b>Lear Siegler</b> Model Number: <b>SM 810</b> Serial Number: <b>29259M</b>	
5. Installation Date: <b>17 Sep 1982</b>	6. Performance Specification Test Date:
7. Continuous Monitor Comment: <b>CEM required pursuant to 40 CFR 60.45.</b>	

**EMISSIONS UNIT INFORMATION**

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**H. CONTINUOUS MONITOR INFORMATION**

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

**Continuous Monitoring System:** Continuous Monitor 7 of 9

1. Parameter Code: VE	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Lear Seigler Model Number: CM50      Serial Number: 291230	
5. Installation Date: 17 Sep 1982	6. Performance Specification Test Date:
7. Continuous Monitor Comment: COM required pursuant to 40 CFR 60.45.	

**Continuous Monitoring System:** Continuous Monitor 8 of 9

1. Parameter Code: O2	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Lear Siegler Model Number: RM41      Serial Number:	
5. Installation Date: 17 Sep 1982	6. Performance Specification Test Date:
7. Continuous Monitor Comment: O2 required pursuant to 40 CFR 60.45.	

**EMISSIONS UNIT INFORMATION**

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**H. CONTINUOUS MONITOR INFORMATION****Complete if this emissions unit is or would be subject to continuous monitoring.****Continuous Monitoring System:** Continuous Monitor 9 of 9

1. Parameter Code: <b>CO</b>	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: <b>TECO</b> Model Number: <b>48i-TLE</b> Serial Number: <b>0712221616</b>	
5. Installation Date: <b>1 Oct 2008</b>	6. Performance Specification Test Date:
7. Continuous Monitor Comment: <b>Permit 1050004-018-AC (PSD-FL-387).</b>	

**Continuous Monitoring System:** Continuous Monitor \_\_\_\_ of \_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

# EMISSIONS UNIT INFORMATION

Section [1]

Unit No. 3

## I. EMISSIONS UNIT ADDITIONAL INFORMATION

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

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <b>Dec. 2006</b>
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <b>Dec. 2006</b>
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <b>Dec. 2006</b>
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input checked="" type="checkbox"/> Attached, Document ID: <b>See attached</b> Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

## EMISSIONS UNIT INFORMATION

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### Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

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

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable



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**Additional Requirements Comment**

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