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BUREAU OF AIR REGULATION

TITLE V (REVISION) PERMIT APPLICATION FOR THE ADDITION OF LOW NO_x 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

DISTRIBUTION:

- 4 Copies FDEP
- 2 Copies City of Lakeland
- 1 Copies Golder Associates Inc.

APPLICATION FOR AIR PERMIT – LONG FORM



Department of Environmental Protection

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MAR 04 2008

BUREAU OF AIR REGULATION

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

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: City of	1. Facility Owner/Company Name: City of Lakeland, Department of Electric Utilities				
2. Site Name: C.D. McIntosh, Jr. Power Pla	. Site Name: C.D. McIntosh, Jr. Power Plant				
3. Facility Identification Number: 1050004					
4. Facility Location: Street Address or Other Locator: 3030 E	Facility Location: Street Address or Other Locator: 3030 East Lake Parker Drive				
City: Lakeland Coun	ty: Polk Zip Code: 33805				
5. Relocatable Facility? ☐ Yes ☐ No	6. Existing Title V Permitted Facility? ☐ Yes ☐ No				
Application Contact					
1. Appli	cation Contact Name:				
2. Application Contact Mailing Address Organization/Firm: Lakeland Electric	·				
Street Address: 501 East Lemon Stre	Street Address: 501 East Lemon Street				
City: Lakeland	State: FL Zip Code: 33801-5079				
3. Application Contact Telephone Numbe	rs				
Telephone: (863) 834-6603 ex	tt. Fax: (863) 834-8187				
4. Application Contact Email Address: farzie.shelton@lakelandelectric.com					
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):				

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 repeated.			
 ☐ 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: \[\textsit \text{ I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.}\]			
Application Comment			
Application to incorporate Low-NOx burners and overfire air (Air Permit 1050004-018-AC) into Title V permit.			

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
006	McIntosh Unit 3	ACIA	NA ·
<u> </u>			
		·	
_			
		. ,	
·			
-			
			,
		_	

Application Processing Fee		
Check one: Attached - Amount: \$	Not Applicable	

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:

M Ball

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.

RE: Title V Permit Nos. 1050004-018-AC & 1050004-016-AV **Operation Permit Revision Application**

Signature

Effective: 2/2/06

3/3/08 Date

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

Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1.	Application Responsible Official Name:		
2.	Application Responsible Official Qualification (Check one or more of the following options, as applicable):		
	For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or		
	decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under		
	Chapter 62-213, F.A.C. For a partnership or sole proprietorship, a general partner or the proprietor, respectively.		
	For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.		
	☐ The designated representative at an Acid Rain source.		
3.	Application Responsible Official Mailing Address Organization/Firm:		
	Street Address:		
	City: State: Zip Code:		
4.	Application Responsible Official Telephone Numbers		
	Telephone: () - ext. Fax: () -		
5.	Application Responsible Official Email Address:		
6.	Application Responsible Official Certification:		
	I, the undersigned, am a responsible official of the Title V source 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 applicable		
	requirements identified in this application to which the Title V source 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. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to		
	which they are subject, except as identified in compliance plan(s) submitted with this		
	application.		
Ī			
	Signature Date		

<u>Pr</u>	ofessional Engineer Certification
1.	Professional Engineer Name: Kennard F. Kosky
	Registration Number: 14996
2.	Professional Engineer Mailing Address
	Organization/Firm: Golder Associates Inc.**
	Street Address: 6241 NW 23rd Street, Suite 500
	City: Gainesville State: FL Zip Code: 32653
3.	Professional Engineer Telephone Numbers
	Telephone: (352) 336-5600 ext. 516 Fax: (352) 336-6603
4.	Professional Engineer Email Address: kkosky@golder.com
5.	Professional Engineer Statement:
	I, the undersigned, hereby certify, except as particularly noted herein*, that:
	(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and
	(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.
	(3) If the purpose of this application is to obtain a Title V air operation permit (check here \infty, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.
	(4) If the purpose of this application is to obtain an air construction permit (check here \square , 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 \square , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.
	(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.
	19emad t-19mg 2/29/08
	Signature
	(seal) Sec EN S. Co
	* Attach any exception togethin cation statement.
	** Board of Professional Engineers Certificate of Authorization #00001670
	STATE OF TE
DE	P Form No. 62-210,900(1) Form 0637630/0308/COL_KFK_McIntosh_0308

MONAL VI

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Fac	cility Location and	<u>Type</u>				
1. Facility UTM Coordinates			2.	2. Facility Latitude/Longitude		
		(km) 409.0		Latitude (DD/MM/	/SS) 26/4/50	
	Nort	th (km) 3106.2		Longitude (DD/MI	M/SS) 81/55/32	
3.	Governmental	4. Facility Sta	tus 5.	Facility Major	6. Facility SIC(s):	
	Facility Code:	Code:		Group SIC Code:	4911	
	4	Α		49	`	
pov cor (dis	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.					
	cility Contact Facility Contact N Bret Galbraith, Env			·		
2.				•	· · · · · · · · · · · · · · · · · · ·	
2.	Organization/Firm	•				
	Street Address	: 501 East Lemor	n Street			
	City	: Lakeland	State	: FL Zi _j	Code: 33801-5079	
3.	Facility Contact T	elephone Numbe	ers:			
	Telephone: (863)	834-8180	ext.	Fax: (863) 834-81	87	
4.	Facility Contact E	mail Address: B	ret.Galbraith	@lakelandelectric.co	om	
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:						
	<u> </u>			,		
2.	Facility Primary Re	•	al Mailing A	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 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. ☐ Small Business Stationary Source ☐ Unknown
2. Synthetic Non-Title V Source
3. ⊠ Title V Source
4. Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)
5. Synthetic Minor Source of Air Pollutants, Other than HAPs
6. Major Source of Hazardous Air Pollutants (HAPs)
7. Synthetic Minor Source of HAPs
8. One or More Emissions Units Subject to NSPS (40 CFR Part 60)
9. One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)
10. More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)
11. Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))
12. Facility Regulatory Classifications Comment: Unit 1, Unit 2, Unit 3, and Unit 5 are regulated under Acid Rain, Phase II Unit 2 is subject to NSPS Subpart D, Unit 3 is subject to Subpart Da, Unit 5 is subject to Subpart KKKK. State: Unit 1 is subject to 62-296.405 Unit 2, 3, and 5 are subject to 62-204.800 Unit 3 is subject to 62-212.400(6)

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
PM	Α	N
PM10	Α	N
voc	Α	N
SO2	Α	N
H106	Α	N .
NOX	Α΄ ·	N
HAPS	Α	N
HCI	Α	N
SAM	Α	N
	·	
	·	_

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

	1. Pollutant Subject to Emissions Cap	2. Facility Wide Cap [Y or N]? (all units)	3. Emissions Unit ID No.s Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
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t						
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-		•				
-	7. Facility	Wide or Multi	Unit Emissions Ca	n Commont:		
	7. Pacifity	- Wide of Muth-	Olit Emissions Ca	p Comment.		
	FA.A.					•
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				٠.		
			-			

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) Attached, Document ID: Previously Submitted, Date: Dec. 2006
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)
	☐ Attached, Document ID: ☐ ☐ Previously Submitted, Date: Dec. 2006
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)
	☐ Attached, Document ID: ☐ Previously Submitted, Date: June 14, 1996
Ad	ditional Requirements for Air Construction Permit Applications
1.	Area Map Showing Facility Location:
	☐ Attached, Document ID: ☐ Not Applicable (existing permitted facility)
2.	Description of Proposed Construction or Modification, or Plantwide Applicability Limit (PAL): Attached, Document ID:
3.	Rule Applicability Analysis: Attached, Document ID:
4.	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)
5.	Fugitive Emissions Identification (Rule 62-212.400(2), F.A.C.):
	☐ Attached, Document ID: ☐ Not Applicable
6.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.): ☐ Attached, Document ID: ☐ Not Applicable
7.	Source Impact Analysis (Rule 62-212.400(5), F.A.C.): Attached, Document ID: Not Applicable
8.	Air Quality Impact since 1977 (Rule 62-212.400(5)(h)5., F.A.C.):
	☐ Attached, Document ID: ☐ Not Applicable
9.	Additional Impact Analyses (Rules 62-212.400(5)(e)1. and 62-212.500(4)(e), F.A.C.):
.10	. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.):
	☐ Attached, Document ID: ☐ Not Applicable

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)			
Ad	ditional 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:			
3.	Not Applicable (revision application with no change in applicable requirements) 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.	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			
Ad	ditional 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.

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1.	renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)									
	\boxtimes	emissions	uni	it.				Jnit Information S		
٠				s unit addressed missions unit.	in tl	nis Émissio	ns U	Init Information S	ecti	on is an
<u>En</u>	Emissions Unit Description and Status									
1.	Ту	pe of Emis	ssion	ns Unit Addresse	d in	this Section	n: (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.									
		·						es, as a single em		
2. Ste		escription of Generator		· · · · · · · · · · · · · · · · · · ·	ldre	ssed in this	Sec	tion: McIntosh Un	it 3	- Fossil-Fuel-Fired
3.	En	nissions Ur	nit I	dentification Nur	nbe	r: 006				
4.	Un	nissions nit Status ode:	5.	Commence Construction Date:	6.	Initial Startup Date: 1982	7.	Emissions Unit Major Group SIC Code: 49	8.	Acid Rain Unit? ⊠ Yes □ No
9.		ckage Unit				_	Mo	del Number:		
10.	G	enerator N	ame	eplate Rating: 364	4 M	W				
				Comment: This ered fuel and petrol			а со	al-fired steam-gen	erat	ing unit which also
						·		·		

Section [1] Unit No. 3

Emissions Unit Control Equipment

1.	Control Equipment/Method(s) Descript PM – Electrostatic Precipitator (ESP), fo SO2 – Flue Gas Desulfurization (FGD) sy NOX – Low NOX burners (LNB).	llowed by	
			•
	·		
	4.		
	·		
		·	
			,
	•		
2.	Control Device or Method Code(s): 10,	67, and 205	

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.	2. Maximum Production Rate:			
3.	3. Maximum Heat Input Rate: 3,640 million Btu/hr			
4.	Maximum Incineration Rate:	pounds/hr		
		tons/day	•	
5.	5. Requested Maximum Operating Schedule:			
		24 hours/day		7 days/week
		52 weeks/year		8,760 hours/year

6. Operating Capacity/Schedule Comment:

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.

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

Section [1] Unit No. 3

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 4

1. Segment Description (Process/Fuel Type):

	Coal	·			
				•	
	<u> </u>	(2.2.2)			
2.	Source Classification Code 1-01-001-01	e (SCC):	3. SCC Units Tons	S: ·	
4.	Maximum Hourly Rate: 159.6	5. Maximum . 1,398,096	Annual Rate:	6. Estimated Annual Ac Factor:	tivity
7.	Maximum % Sulfur: 3.3	8. Maximum 6	% Ash:	9. Million Btu per SCC 23	Unit:
10.	Segment Comment: Up to 20 percent petroleum	n coke is authoriz	ed to be co-fire	d with coal.	
					,
Se	gment Description and Ra	ite: Segment 2 o	of <u>4</u>	•	
1.	Segment Description (Procoil	cess/Fuel Type):			
				•	
				•	
	•			•	
2.	Source Classification Code 1-01-004-01	e (SCC):	3. SCC Units 1,000 Gallo	s: ons Burned	
4.	Maximum Hourly Rate: 24,268	5. Maximum 212,584	Annual Rate:	6. Estimated Annual Ac Factor:	tivity
7.	Maximum % Sulfur: 0.73	8. Maximum	% Ash:	9. Million Btu per SCC 150	Unit:
10.	Segment Comment:		·		_
			,		
			· 		

Section [1] Unit No. 3

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 3 of 4

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

36	Segment Description and Rate: Segment 4 of 4					
1.	Segment Description (Process/Fuel Type): Natural Gas					
	÷			· ·		
2.	Source Classification Cod 1-01-006-01	e (SCC):		3. SCC Units: Million Cubic Feet		
4.	Maximum Hourly Rate: 3.56	5. Maximo 31,139	um Annual Rate:	6. Estimated Annual Activity Factor:		
7.	7. Maximum % Sulfur: 8. Maximum 3.3		ximum % Ash: 9. Million Btu per SCC 1,024			
10	. Segment Comment: Natural gas or propane on	ly or in combi	ination with any ot	ther fuels or fuel combinations.		

Section [1] Unit No. 3

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
СО			EL
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			-
			_
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1		·	
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POLLUTANT DETAIL INFORMATION Page [1] of [1] Carbon Monoxide

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: CO	2. Total Perc	ent Effici	ency of Control:
3. Potential Emissions:			netically Limited?
728 lb/hour 3,188.	6 tons/year	☐ Y	es 🛛 No
5. Range of Estimated Fugitive Emissions (as	applicable):		
to tons/year			
6. Emission Factor: 0.20 lb/MMBtu		_	7. Emissions
			Method Code:
Reference: Permit 1050004-018-AC (F	· · · · · · · · · · · · · · · · · · ·		0
8.a. Baseline Actual Emissions (if Required):	8.b. Baseline 2		Period:
Tons/year	From:	To:	
	* • •		
9.a. Potential Actual Emissions (if Required):	9.b. Projected	l Monitori	ng Period:
Tons/year	☐ 5 year	s] 10 years
			•
·			
10 01 14: 55	·		
10. Calculation of Emissions: 0.20 lb/mmBtu x 3,640 mmBtu/hr = 728.0 lb/h	ı r		
728.0 lb/hr x 8,760 hr/yr ÷ 2,000 lb/ton = 3,188			
•	_		
	•		
			<u> </u>
11. Pollutant Potential/Estimated Fugitive Emis	sions Commen	t:	i
	*		•
·			

POLLUTANT DETAIL INFORMATION Page [1] of [1] Carbon Monoxide

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 1

1.	Basis for Allowable Emissions Code: OTHER	2. Future Emiss	e Effective Date ions:	e of Allowable			
3.	Allowable Emissions and Units: 0.20 lb/MMBtu	-	alent Allowable 28 lb/hour	e Emissions: 3,188.6 tons/year			
5.	5. Method of Compliance: Initial compliance test; CEMS 30-operating-day rolling average.						
6.	 Allowable Emissions Comment (Description of Operating Method): Permit 1050004-018-AC (PSD-FL-387). 						
Al	Allowable Emissions of						
1.	Basis for Allowable Emissions Code:	2. Future Emiss	Effective Date	e of Allowable			
3.	Allowable Emissions and Units:	4. Equiv	alent Allowablo lb/hour	e Emissions: tons/year			
5.	Method of Compliance:						
6.	Allowable Emissions Comment (Description	of Operati	ng Method):				
Al	lowable Emissions Allowable Emissions	_ of	_				
1.	Basis for Allowable Emissions Code:	2. Future Emiss	e Effective Date sions:	e of Allowable			
3.	Allowable Emissions and Units:	4. Equiv	alent Allowable lb/hour	e Emissions: tons/year			
5.	Method of Compliance:						
6.	Allowable Emissions Comment (Description	of Operati	ng Method):				

Section [1] Unit No. 3

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: VE20	2. Basis for Allowable Opacity: ⊠ Rule □ Othe	
3.	Allowable Opacity: Normal Conditions: 20 % Ex Maximum Period of Excess Opacity Allower	acceptional Conditions: 27 % ed: 6 min	/hour
4.	Method of Compliance: Annual VE testing;	EPA Method 9.	
5.	Visible Emissions Comment: Title V Permit	1050004-016-AV.	- - -
<u>Vi</u>	sible Emissions Limitation: Visible Emissi	ons Limitation <u>2</u> of <u>2</u>	
1.	Visible Emissions Subtype: VE99	2. Basis for Allowable Opacity: ⊠ Rule □ Othe	er
3.	Allowable Opacity: Normal Conditions: % Ex Maximum Period of Excess Opacity Allower	acceptional Conditions: 100 % 60 mi	n/hour
4.	Method of Compliance: None		
	Visible Emissions Comment: Excess VE emd 40 CFR 60.8(c), and 60.11(c) for 2 hours (120 utdown, and malfunction.		

Section [1] Unit No. 3

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:	2.	Pollutant(s): SO2	
3.	CMS Requirement:		Rule Other	
4.	Monitor Information		Kule	
4.	Manufacturer: Advanced Pollution Inst.			
-	Model Number: 152		Serial Number: 139/176 and 172/156	
5.	Installation Date: 09 Nov 1994	6.	Performance Specification Test Date:	
	7. Continuous Monitor Comment: CEM required pursuant to 40 CFR Part 75, Title V Permit No. 1050004-016-AV.			
			• •	
	·			
<u>Co</u>	ntinuous Monitoring System: Continuous	Moı	nitor <u>2</u> of <u>9</u>	
1.	Parameter Code: EM		2. Pollutant(s): NOx	
3.	CMS Requirement:	\boxtimes	Rule	
4.	Monitor Information Manufacturer: Advanced Pollution Inst.			
	Model Number: 252		Serial Number: 165 and 136	
5.	Installation Date: 09 Nov 1994	_	6. Performance Specification Test Date:	
	7. Continuous Monitor Comment: CEM required pursuant to 40 CFR Part 75, Title V Permit No. 1050004-016-AV.			
			•	

Section [1] Unit No. 3

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: VE	2.	Pollutant(s):	
3.	CMS Requirement:	\boxtimes	Rule	
4.	Monitor Information Manufacturer: United Science Inc.			
	Model Number: 500C	•	Serial Number: 0993688	
5.	Installation Date: 09 Nov 1994	6.	Performance Specification Test Date:	
	7. Continuous Monitor Comment: CEM required pursuant to 40 CFR Part 75 and Title V Permit No. 1050004-016-AV.			
Continuous Monitoring System: Continuous Monitor 4 of 9				
1.	Parameter Code:		2. Pollutant(s):	
	CO2		2. 1 ondiam(3).	
3.	CO2		Rule	
	CO2			
4.	CMS Requirement: Monitor Information			
4. N 3I	CMS Requirement: Monitor Information Manufacturer: California Instruments Model Number: 3300		Rule	
4. N3 i 5.	CMS Requirement: Monitor Information Manufacturer: California Instruments Model Number: 3300 2490T Installation Date:		Rule Other Serial Number: N3L2487T and 6. Performance Specification Test Date:	
4. N3 i 5.	CO2 CMS Requirement: Monitor Information Manufacturer: California Instruments Model Number: 3300 2490T Installation Date: 09 Nov 1994		Rule Other Serial Number: N3L2487T and 6. Performance Specification Test Date:	
4. N3 i 5.	CO2 CMS Requirement: Monitor Information Manufacturer: California Instruments Model Number: 3300 2490T Installation Date: 09 Nov 1994		Rule Other Serial Number: N3L2487T and 6. Performance Specification Test Date:	
4. N3 i 5.	CO2 CMS Requirement: Monitor Information Manufacturer: California Instruments Model Number: 3300 2490T Installation Date: 09 Nov 1994		Rule Other Serial Number: N3L2487T and 6. Performance Specification Test Date:	
4. N3 I 5.	CO2 CMS Requirement: Monitor Information Manufacturer: California Instruments Model Number: 3300 2490T Installation Date: 09 Nov 1994		Rule	

Section [1] Unit No. 3

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: FLOW	2.	Pollutant(s):
3.	CMS Requirement:	\boxtimes	Rule
4.	Monitor Information Manufacturer: United Science Ultraflow		
	Model Number: 100		Serial Number: 1001060
5.	Installation Date: 10 Nov 1995 .	6.	Performance Specification Test Date:
7.	Continuous Monitor Comment: Flow monitor required pursuant to 40 CFR Part 75.		
		:	
	· · · · · · · · · · · · · · · · · · ·		·
<u>Co</u>	ntinuous Monitoring System: Continuous	Moı	nitor <u>6</u> of <u>9</u>
1.	Parameter Code: EM		2. Pollutant(s): SO2
3.	CMS Requirement:	\boxtimes	Rule Other
4.	Monitor Information Manufacturer: Lear Siegler		
	Model Number: SM 810		Serial Number: 29259M
5.	Installation Date: 17 Sep 1982		6. Performance Specification Test Date:
7.	Continuous Monitor Comment: CEM required pursuant to 40 CFR 60.45.		

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Section [1] Unit No. 3

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:	\boxtimes	Rule	
4.	Monitor Information Manufacturer: Lear Seigler Model Number: CM50		Serial Number: 291230	
5.	Installation Date: 17 Sep 1982	6.	Performance Specification Test Date:	
7.				
			,	
<u>Co</u>	ontinuous Monitoring System: Continuous	Mo	nitor <u>8</u> of <u>9</u>	
1.	Parameter Code: 02		2. Pollutant(s):	
3.	CMS Requirement:	\boxtimes	Rule 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	pur	suant to 40 CFR 60.45.	

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: CO	2. Pollı	tant(s):	
3.	CMS Requirement:	☐ Rule	[⊠ Other
4.	Monitor Information Manufacturer: TECO			
	Model Number: 48i-TLE		erial Number:	
5.	Installation Date: 1 Oct 2008	6. Perfo	rmance Speci	fication Test Date:
7.	Continuous Monitor Comment: Permit 1050	04-018-A	C (PSD-FL-387	r).
			-	
Continuous Monitoring System: Continuous Monitor of				
1.	Parameter Code:	2. P	ollutant(s):	
3.	CMS Requirement:	☐ Rule]	Other
4.	Monitor Information Manufacturer:			
	Model Number:	S	erial Number:	·
-5				
٦.	Installation Date:	6. P	erformance S ₁	pecification Test Date:
	Installation Date: Continuous Monitor Comment:	6. P	erformance S _l	pecification Test Date:

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) Attached, Document ID: Previously Submitted, Date <u>Dec. 2006</u>
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) Attached, Document ID: Previously Submitted, Date <u>Dec. 2006</u>
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) Attached, Document ID: Previously Submitted, Date <u>Dec. 2006</u>
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) Attached, Document ID: Previously Submitted, Date 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) Attached, Document ID: Previously Submitted, Date Not Applicable
6.	Compliance Demonstration Reports/Records Attached, Document ID: See attached Test Date(s)/Pollutant(s) Tested:
	Previously Submitted, Date: Test Date(s)/Pollutant(s) Tested:
1	To be Submitted, Date (if known): Test Date(s)/Pollutant(s) Tested:
	☐ 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 Attached, Document ID: Not Applicable

Section [1] Unit No. 3

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))				
Attached, Document ID: Not Ap	pplicable			
2. Good Engineering Practice Stack Height Analysis (I	Rule 62-212.400(5)(h)6., F.A.C., and			
Rule 62-212.500(4)(f), F.A.C.)				
Attached, Document ID: Not Ap	pplicable			
3. Description of Stack Sampling Facilities (Required	for proposed new stack sampling			
facilities only)				
Attached, Document ID: Not Ap	pplicable			
Additional Requirements for Title V Air Operation P	ermit Applications			
1. Identification of Applicable Requirements				
☐ Attached, Document ID: ☐ Not App	olicable			
2. Compliance Assurance Monitoring				
☐ Attached, Document ID: ☐ Not App	olicable			
3. Alternative Methods of Operation				
☐ Attached, Document ID: ☐ Not App	olicable			
4. Alternative Modes of Operation (Emissions Trading)				
☐ Attached, Document ID: ☐ Not App	olicable			
5. Acid Rain Part Application				
☐ Certificate of Representation (EPA Form No. 7610-1)				
☐ Copy Attached, Document ID:				
☐ Acid Rain Part (Form No. 62-210.900(1)(a))				
Attached, Document ID:				
Previously Submitted, Date:	00/11/ 11 1			
Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)				
Attached, Document ID:	2			
Previously Submitted, Date:	\ 0.\			
New Unit Exemption (Form No. 62-210.900(1)(a	1)2.)			
Attached, Document ID:	•			
Previously Submitted, Date:	V >2 >			
Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)			
Attached, Document ID:				
Previously Submitted, Date:	0.000(1)(-)4.)			
Phase II NOx Compliance Plan (Form No. 62-21)	0.900(1)(a)4.)			
Attached, Document ID:				
Previously Submitted, Date:	000(1)(-)5)			
Phase II NOx Averaging Plan (Form No. 62-210.	900(1)(8)3.)			
Attached, Document ID:				
Previously Submitted, Date:				
Not Applicable ■				

Section [1] Unit No. 3 Additional Requirements Comment

EMISSIONS UNIT INFORMATION