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BUREAU OF AIR REGULATION

APPLICATION FOR
AIR CONSTRUCTION PERMIT FOR
FLORIDA POWER & LIGHT COMPANY
PORT EVERGLADES PLANT
FT. LAUDERDALE, FLORIDA

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Pokutin Clevinor Provoct

Prepared For: Florida Power & Light Company 700 Universe Boulevard Juno Beach, Florida 33408

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

> April 2003 0237560

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5 Copies - Florida Power or

5 Copies – Florida Power and Light 1 Copy – Golder Associates Inc.



Department of Environmental Protection

Division of Air Resources Management

APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

Ide	Identification of Facility						
1.	1. Facility Owner/Company Name: Florida Power & Light Company						
2.	Site Name: Port Everglades Plant	t					
3.	Facility Identification Number:	0110036		[] Unknown			
4.	Facility Location: Street Address or Other Locator:	8100 Eise	nhower Blvd				
	City: Ft. Lauderdale	County: B	Broward	Zip Code: 33316			
5.	Relocatable Facility?		_	Permitted Facility?			
	[] Yes [X] No		[X] Yes	[] No			
Ar	pplication Contact						
	Name and Title of Application C evin Washington – Senior Environ		rcialist	e e e e e e e e e e e e e e e e e e e			
	vin viusimigeon Somer Environ	montar spe	oranst .	6			
2.	Application Contact Mailing Add Organization/Firm: Florida Powe		- Environment	tal Services	_		
	Street Address: 700 Universe Blv	/d.		•			
	City: Juno Beach	St	ate: Florida	Zip Code: 33408	•		
3.	Application Contact Telephone N	Numbers:					
	Telephone: (561) 691-2877		Fax: (561	1) 691-7049			
<u>Ar</u>	Application Processing Information (DEP Use)						
1.	Date of Receipt of Application:						
2.	Permit Number:		_				
3.	PSD Number (if applicable):						
4.	Siting Number (if applicable):						

Purpose of Application

Air Operation Permit Application

 [] Initial Title V air operation permit for an existing facility which is classified as a Title V source. [] Initial Title V air operation permit 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: [] Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application. Current construction permit number: Operation permit number to be revised: [] Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.) Operation permit number to be revised/corrected: [] Title V air operation permit revision for reasons other than construction or modification of a emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal. Operation permit number to be revised: Reason for revision: Air Construction Permit Application This Application for Air Permit is submitted to obtain: (Check one) [X] Air construction permit to construct or modify one or more emissions units. [] Air construction permit for one or more existing, permitted emissions units. 	T	his	Application for Air Permit is submitted to obtain: (Check one)
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potential emissions of one or more existing, permitted emissions units.	[]	X]	Air construction permit to construct or modify one or more emissions units.
[] Air construction permit for one or more existing, but unpermitted, emissions units.	[]	
	[]	Air construction permit for one or more existing, but unpermitted, emissions units.

Owner/Authorized Representative or Responsible Official

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

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

Organization/Firm: Port Everglades Plant

Street Address: 8100 Eisenhower Blvd.

City: Fort Lauderdale

State: Florida

Zip Code: 33316

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

Telephone: (954) 527-3601

Fax: (954) 527-3636

4. Owner/Authorized Representative or Responsible Official Statement:

I, the undersigned, am the owner or authorized representative*(check here [], if so) or the responsible official (check here [X], if so) 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. 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. 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

Date

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: Kennard F. Kosky

Registration Number: 14966

2. Professional Engineer Mailing Address:

Organization/Firm: Golder Associates, Inc. *
Street Address: 6241 NW 23rd Street, Suite 500

City: Gainesville

State: Florida

Zip Code: 32653

4/18/03

3. Professional Engineer Telephone Numbers:

Telephone: (352) 336-5200

Fax: (352) 336 - 6603

* Certificate of Authorization No. 00001670

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

Effective: 2/11/99

4. 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.

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

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X], 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.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision 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.

Signature D F. Mo

4/23/03

Date

* Attach any exception to certification statement.

rmNo 62-210,900(1) – Form

Scope of Application

Emissions		Permit	Processing
Unit ID	Description of Emissions Unit	Туре	Fee
	Fossil Steam Boiler Unit 1	AC1B	N/A
01			
	Fossil Steam Boiler Unit 2	AC1B	N/A
02			
	Fossil Steam Boiler Unit 3	AC1B	N/A
03		4 645	`
0.4	Fossil Steam Boiler Unit 4	AC1B	N/A
04	· · · · · · · · · · · · · · · · · · ·		
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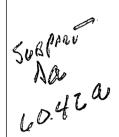
Application Processing Fee

Check one: [] Attached - Amount: \$	[X] Not Applicable
--------------------------------------	--------------------

Construction/Modification Information

Description of Proposed Project or Alterations:
 Installation of Electrostatic Precipitators (ESPs) on fossil fueled steam boilers Units 1 through 4.

The Florida Department of Environmental Protection (the "Department"), local environmental authorities and interested citizen groups have been expressing increased concern to FPL over the levels of particulate emissions from the Port Everglades Plant, as well as the need to ensure the Plant's continued compliance with the National Ambient Air Quality Standards and Hazardous Air Pollutant MACT requirements. These concerns have been the subject of negotiations between the Department and FPL over the appropriate air emission controls to be incorporated into FPL's Title V permits for those plants. As a result of the negotiations, the Department and FPL have agreed on new Title V permit conditions requiring lower limits of particulate emissions at the Port Everglades Plant equivalent to New Source Performance Standards. In order to meet the lower particulate limits, FPL will install ESPs (or other equally effective particulate matter control technology) and steam coils on its four fossil-fueled steam boilers at Port Everglades.



- 2. Projected or Actual Date of Commencement of Construction: NOV 2004
- 3. Projected Date of Completion of Construction: DEC 2007

Application Comment

The installation of ESPs on the first of the 4 Port Everglades steam boiler units is anticipated to begin in conjunction with the Spring outage of 2005 or sooner absent any unexpected delays in engineering, procurement, or other factors. The remaining units' ESP installations will be completed within the next two years, with the last ESP installed during the Spring outage of 2007. Following the installation of each ESP, a commissioning and optimization period of 180 days is anticipated following each unit's return to service.

The currently installed mechanical dust collectors will be removed from each unit, and steam coils will be added as part of each unit's ESP addition.

The Port Everglades units are anticipated to remain as cycling and load-following units after the installation of the ESPs. Therefore, it is expected that there will be periods coincident with unit start-up and shutdown activities when the ESPs may be marginally effective until reaching the appropriate operating conditions, i.e. temperatures, flows, etc. FPL will strive to minimize the impact of start up/shutdown activities on ambient air quality by using best operating practices during those periods.

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DEP Form No. 62-210.900(1) – Form Effective: 2/11/99

0237560/4/4.3/4.3.1 PE Constr/FPL_KFK_Form1_EU4.doc 4/22/2003

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1.	Facility UTM Coor	dinates:				
	Zone: 17	East (km)	: 587383	Nort	th (km): 2885250	
2.	Facility Latitude/Lo	_		,		
	Latitude (DD/MM/S	SS): 26-4-8	Longitude (DD/MM/SS): 80-7-31			
3.	Governmental	4. Facility Status	5. Facility Ma	•	6. Facility SIC(s):	
	Facility Code: 0	Code:	Group SIC 49	Code:	4911	
		A	49			
7.		(limit to 500 characters):	-	ntains for	ur fossil steam boiler	
gei	nerating units units, a	and one bank of 12 gas t	urbines.			

Facility Contact

1.	Name and	Title of Facility	/ Contact: K	athrvn Pascale

2. Facility Contact Mailing Address:

Organization/Firm: FPL Port Everglades Plant

Street Address: P.O. Box 13118

City: Ft. Lauderdale

State: Florida

Zip Code: 33316

3. Facility Contact Telephone Numbers:

Telephone: (954) 797-1338

.

Fax: (954) 797-1579

Facility Regulatory Classifications

Check all that apply:

1. [] Small Business Stationary Source?	[] Unknown						
2. [X] Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?							
3. [] Synthetic Minor Source of Pollutants Other than HAPs?							
4. [X] Major Source of Hazardous Air Pollutants	(HAPs)?						
5. [] Synthetic Minor Source of HAPs?	-						
6. [] One or More Emissions Units Subject to N	NSPS?						
7. [X] One or More Emission Units Subject to N	ESHAP?						
8. [] Title V Source by EPA Designation?							
9. Facility Regulatory Classifications Comment (limit to 200 characters): This facility is located in a former non-attainment area for ozone (redesignated to an air quality maintenance area) therefore several of the generating units are subject to NOx-RACT.							
List of Applicable Regulations							
See FDEP Title V Core List - Attached							

Title V Core List

[Note: The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

Effective: 03/01/02

Federal: (description)

40 CFR 61, Subpart M: NESHAP for Asbestos.

40 CFR 82: Protection of Stratospheric Ozone.

40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).

40 CFR 82, Subpart F: Recycling and Emissions Reduction.

State: (description)

CHAPTER 62-4, F.A.C.: PERMITS, effective 06-01-01

62-4.030, F.A.C.: General Prohibition.

62-4.040, F.A.C.: Exemptions.

62-4.050, F.A.C.: Procedure to Obtain Permits; Application

62-4.060, F.A.C.: Consultation.

62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.

62-4.080, F.A.C.: Modification of Permit Conditions.

62-4.090, F.A.C.: Renewals.

62-4.100, F.A.C.: Suspension and Revocation.

62-4.110, F.A.C.: Financial Responsibility.

62-4.120, F.A.C.: Transfer of Permits.

62-4.130, F.A.C.: Plant Operation - Problems.

62-4.150, F.A.C.: Review

62-4.160, F.A.C.: Permit Conditions.

62-4.210, F.A.C.: Construction Permits.

62-4.220, F.A.C.: Operation Permit for New Sources.

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 06-21-01

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

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

62-210.300(7), F.A.C.: Transfer of Air Permits.

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Title V Core List

- 62-210.350, F.A.C.: Public Notice and Comment.
- 62-210.350(1), F.A.C.: Public Notice of Proposed Agency Action.
- 62-210.350(2), F.A.C.: Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment-Area Preconstruction Review.

Effective: 03/01/02

- 62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources 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.
- 62-210.400, F.A.C.: Emission Estimates.
- 62-210.650, F.A.C.: Circumvention.
- 62-210.700, F.A.C.: Excess Emissions
- 62-210.900, F.A.C.: Forms and Instructions.
- 62-210.900(1), F.A.C.: Application for Air Permit Title V Source, Form and Instructions.
- 62-210.900(5), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.
- 62-210.900(7), F.A.C.: Application for Transfer of Air Permit Title V and Non-Title V Source.

CHAPTER 62-212, F.A.C.: STATIONARY SOURCES- PRECONSTRUCTION REVIEW, effective 08-17-00

CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 04-16-01

- 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.
- 62-213.415, F.A.C.: Trading of Emissions Within a Source.
- 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.
- 62-213.450, F.A.C.: Permit Review by EPA and Affected States
- 62-213.460, F.A.C.: Permit Shield.
- 62-213.900, F.A.C.: Forms and Instructions.
- 62-213.900(1), F.A.C.: Major Air Pollution Source Annual Emissions Fee Form.
- 62-213.900(7), F.A.C.: Statement of Compliance Form

Page 2 of 3

Title V Core List

Effective: 03/01/02

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 03-02-99

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

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

CHAPTER 62-297, F.A.C.: STATIONARY SOURCES - EMISSIONS MONITORING, effective 03-02-99

62-297.310, F.A.C.: General Test Requirements.

62-297.330, F.A.C.: Applicable Test Procedures.

62-297.340, F.A.C.: Frequency of Compliance Tests.

62-297.345, F.A.C.: Stack Sampling Facilities Provided by the Owner of an Emissions Unit.

62-297.350, F.A.C.: Determination of Process Variables.

62-297.570, F.A.C.: Test Report.

62-297.620, F.A.C.: Exceptions and Approval of Alternate Procedures and Requirements.

Miscellaneous:

CHAPTER 28-106, F.A.C.: Decisions Determining Substantial Interests

CHAPTER 62-110, F.A.C.: Exception to the Uniform Rules of Procedure, effective 07-01-98

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 02-09-99

CHAPTER 62-281, F.A.C.: Motor Vehicle Air Conditioning Refrigerant Recovery and Recycling, effective 09-10-96

coding\2002 Core List

B. FACILITY POLLUTANTS

List of Pollutants Emitted

1. Pollutant 2. Pollutant		3. Requested Emissions Cap		4. Basis for	5. Pollutant
Emitted	Classif.	lb/hour	tons/year	Emissions Cap	Comment
SO2	A				
NOx	A				
СО	A				
PM	A				
PM10	A				
VOC	A				
H133	A				
SAM	A				
H106	A				
H107	A			, -	
HAP	A	_			

C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements

1.	Area Map Showing Facility Location: [] Attached, Document ID:	[X] Not Applicable [] Waiver Requested
2.	Facility Plot Plan: [] Attached, Document ID:	[X] Not Applicable [] Waiver Requested
3.	Process Flow Diagram(s): [X] Attached, Document ID: Part II	[] Not Applicable [] Waiver Requested
4.	Precautions to Prevent Emissions of Un [] Attached, Document ID:	nconfined Particulate Matter: [X] Not Applicable [] Waiver Requested
5.	Fugitive Emissions Identification: [] Attached, Document ID:	[X] Not Applicable [] Waiver Requested
6.	Supplemental Information for Construct [X] Attached, Document ID: Part II	etion Permit Application: [] Not Applicable
7.	Supplemental Requirements Comment	

Additional Supplemental Requirements for Title V Air Operation Permit Applications

8. List of Proposed Insignificant Activities:
[] Attached, Document ID: [X] Not Applicable
9. List of Equipment/Activities Regulated under Title VI:
[] Attached, Document ID:
[] Equipment/Activities On site but Not Required to be Individually Listed
[X] Not Applicable
10. Alternative Methods of Operation:
[] Attached, Document [X] Not Applicable
11. Alternative Modes of Operation (Emissions Trading):
[] Attached, Document ID: [X] Not Applicable
12. Identification of Additional Applicable Requirements:
[] Attached, Document ID: [X] Not Applicable
13. Risk Management Plan Verification:
Plan previously submitted to Chemical Emergency Preparedness and Prevention
Office (CEPPO). Verification of submittal attached (Document ID:) or
previously submitted to DEP (Date and DEP Office:)
[] Plan to be submitted to CEPPO (Date required:)
[] Not Applicable
14. Compliance Papert and Plan:
14. Compliance Report and Plan: [] Attached, Document [X] Not Applicable
[12] Not Approach
15. Compliance Certification (Hard-copy Required):
[] Attached, Document ID: _ [X] Not Applicable

Emissions	Unit Information	Section	1	of	4	
		Occuon		O.	7	

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION (All Emissions Units)

Emissions Unit Description and Status

<u> </u>								
1. Type of Emission	1. Type of Emissions Unit Addressed in This Section: (Check one)							
process or prod	[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).							
process or prod] 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.							
1] 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. Regulated or Unr	egulated Emissions Unit	? (Check one)	·					
[X]The emissions un emissions unit.	it addressed in this Emis	sions Unit Information Secti	on is a regulated					
[] The emissions uemissions unit.	unit addressed in this Em	nissions Unit Information Sec	ction is an unregulated					
	3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Port Everglades Boiler Unit 1							
4. Emissions Unit Io ID:	lentification Number: (001	[] No ID [] ID Unknown					
5. Emissions Unit Status Code: A	6. Initial Startup Date: 05/01/60	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? [Y]					
9. Emissions Unit Comment: (Limit to 500 Characters): The generator nameplate rating given reflects information provided to the Florida Public Service Commission (PSC) in the 10-Year Site Plan. Actual generator output may exceed the stated value, and may vary seasonally, or with changes in unit efficiency, and with fluctuations in system load demand.								

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	Emissions	Unit	Informatio	n Section	1	of	4	
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Emissions Unit Control Equipment

- 1. Control Equipment/Method Description (Limit to 200 characters per device or method):
 - A. Electrostatic Precipitator
 - B. Low NOx Burners
 - C. Staged Combustion

2. Control Device or Method Code(s): A = 011, B = 024, C = 025

Emissions Unit Details

1. Package Unit:

Effective: 2/11/99

Manufacturer: Combustion Engineering / Westinghouse

Model Number:

2. Generator Nameplate Rating:

225 MW

3. Incinerator Information:

Dwell Temperature:

°F

Dwell Time:

seconds

Incinerator Afterburner Temperature:

°F

Emissions	Unit	Information	Section	1	of	4

B. EMISSIONS UNIT CAPACITY INFORMATION (Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:	24	100 mmBtu/hr						
2. Maximum Incineration Rate:	lb/hr	tons/day						
3. Maximum Process or Through	put Rate:							
4. Maximum Production Rate:								
5. Requested Maximum Operation	g Schedule:							
	hours/day	days/week						
	weeks/year	8760 hours/year						
Operating Capacity/Schedu	ale Comment (limit to 200 c	haracters):						

Emissions	Unit	Information	Section	1	of	4	
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C. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

List of Applicable Regulations

The proposed addition of ESPs will not change the applicable regulations for this emissions unit.							

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Emissions	Unit Info	rmation	Section	1	of	4	
	CILL LILLO		Dection		VI	7	

D. EMISSION POINT (STACK/VENT) INFORMATION (Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Pi Flow Diagram? Unit 1 boile	2. Emission Point Type Code: 1							
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): NA								
4. ID Numbers or Description	e of Emission III	nite with this Emi	ssion Point in Commo	n.				
Emissions Unit 1, Port Evergla				л.				
, ,	·							
5. Discharge Type Code: V	6. Stack Heig	ht:	7. Exit Diameter:					
	343 feet		14 feet					
8. Exit Temperature:	9. Actual Vol	umetric Flow	10. Water Vapor:					
289 °F	Rate: 813		_	%				
11. Maximum Dry Standard Flo	Dur Pate	acfm	lnission Point Height:					
11. Waximum Diy Standard Pik	dscfm	12. Nolistack El		feet				
13. Emission Point UTM Coord	dinates:							
Zone: 17	ast (km): 587.4	Nort	h (km): 2885.2					
14. Emission Point Comment (from initial Title V application.		•	_	9 above				

Emissions	Unit	Informati	on Sect	ion 1	of	4	
TAILEDOROLLO	Ome	THEOLIGIA		10111	VI	-	

E. SEGMENT (PROCESS/FUEL) INFORMATION (All Emissions Units)

Segment Description and Rate: Segment1_ of7								
1. Segment Description (Process/Fuel Type) (limit to 500 characters): Natural gas burned in Unit 1 boiler								
2. Source Classification Code 1-01-006-01	2. Source Classification Code (SCC): 3. SCC Units: Millions of cubic feet 1-01-006-01							
4. Maximum Hourly Rate: 2.29	5. Maximum Annual Rate: 20022.86		6. Estimated Annual Activity Factor:					
7. Maximum % Sulfur: 0.0031	8. Maximum	% Ash:	9. Million Btu per SCC Unit: 1050					
10. Segment Comment (limit to 200 characters): The unit is currently permitted to burn a variable combination of No. 6 residual oil, natural gas, No. 2 fuel oil, propane, or onspecification used oil from FPL operations.								
Segment Description and Rate: Segment2_ of7								
1. Segment Description (Process/Fuel Type) (limit to 500 characters): No. 6 oil burned in Unit 1 boiler								

2. Source Classification Code (SCC):			3. SCC Units:	Thousand gallons burned
	1-01-004-01			
	4. Maximum Hourly Rate:	5. Maximum	Annual Rate:	6. Estimated Annual Activity
	15.24	133472.56	•	Factor:
	7. Maximum % Sulfur: 2.5	8. Maximum	% Ash:	9. Million Btu per SCC Unit:
				152

10. Segment Comment (limit to 200 characters): The unit is currently permitted to burn a variable combination of No. 6 residual oil, natural gas, No. 2 fuel oil, propane, or onspecification used oil from FPL operations.

Emissions	Unit	Information S	ection	1	of	4 .
	CILL			·	VI.	

E. SEGMENT (PROCESS/FUEL) INFORMATION (All Emissions Units)

Segment Description and Ra	ite: Segment	_3 of7		
1. Segment Description (Prod Unit 1 boiler burning No. 2 fu	1	(limit to 500 cha	racters):	
		1		
2. Source Classification Code 1-01-005-01	· · · · · · · · · · · · · · · · · · ·		Thousand gallons burned	
4. Maximum Hourly Rate: 16.9	5. Maximum 148147.1	Annual Rate:	6. Estimated Annual Activity Factor:	
7. Maximum % Sulfur: 0.5	8. Maximum	% Ash:	9. Million Btu per SCC Unit: 136	
10. Segment Comment (limit variable combination of No. 6 specification used oil from FP	residual oil, nat	•	• •	
	· .			
Segment Description and Ra	ite: Segment	_4 of7		
1. Segment Description (Proceedings of Propage burned in Unit		(limit to 500 cha	racters):	
2. Source Classification Code 1-01-006-01	e (SCC):	3. SCC Units:	Millions of cubic feet	
4. Maximum Hourly Rate: 2.4	5. Maximum 21024	Annual Rate:	6. Estimated Annual Activity Factor:	
7. Maximum % Sulfur:	8. Maximum	% Ash:	9. Million Btu per SCC Unit: 1000	
10. Segment Comment (limit to 200 characters): The unit is currently permitted to burn a variable combination of No. 6 residual oil, natural gas, No. 2 fuel oil, propane, or onspecification used oil from FPL operations.				

Emissions	Unit	Informs	ition	Section	1	οf	4
THINDSIAND	CIIIL	THILDING		OCCUOII	1	VI.	7

E. SEGMENT (PROCESS/FUEL) INFORMATION (All Emissions Units)

Segment Description and Ra	te: Segment	_5 of7		
Segment Description-(Proc On-specification used of			racters):	
2. Source Classification Code 1-01-013-02	e (SCC):	3. SCC Units:	Thousand gallons burned	
4. Maximum Hourly Rate: 22.43	5. Maximum 1,500	Annual Rate:	6. Estimated Annual Activity Factor:	
7. Maximum % Sulfur: 2.5	8. Maximum	% Ash:	9. Million Btu per SCC Unit: 136	
10. Segment Comment (limit to 200 characters): The unit is currently permitted to burn a variable combination of No. 6 residual oil, natural gas, No. 2 fuel oil, propane, or onspecification used oil from FPL operations. Maximum Annual Rate is for Emission Units 001 through 004				
Segment Description and Rate: Segment6 of7				
1. Segment Description (Process/Fuel Type) (limit to 500 characters): Unit 1 boiler co-firing all possible combinations of natural gas, residual oil, on-specification used oil, #2 fuel-oil,-and propane.				
2. Source Classification Code 1-01	e (SCC):	3. SCC Units:	Millions of cubic feet	
4. Maximum Hourly Rate:	5. Maximum	Annual Rate:	6. Estimated Annual Activity Factor:	
7. Maximum % Sulfur: 2.5	8. Maximum	% Ash:	9. Million Btu per SCC Unit:	

lb/mmbtu.

10. Segment Comment (limit to 200 characters): The unit is currently permitted to burn a variable combination of above fuels in a ratio that will result in a max. SO₂ emission of 2.75

Emissions	Unit Information Section	1	of	4	

E. SEGMENT (PROCESS/FUEL) INFORMATION (All Emissions Units)

Segment Description and Ra	ite: Segment	_7 of7			
Segment Description (Proc Boiler chemical cleaning undertaken while firing-natura	g waste evaporate	ed in Unit 1 boile			
2. Source Classification Code 1-01-013-01	e (SCC):	3. SCC Units:	Thousand gallons		
4. Maximum Hourly Rate: 3	5. Maximum . 500	Annual Rate:	6. Estimated Annual Activity Factor:		
7. Maximum % Sulfur: 0.0031	8. Maximum	% Ash:	9. Million Btu per SCC Unit: 1050		
_			& 9 do not apply. This activity guidance, and EPA waste rules		
Segment Description and Ra	nte: Segment	of			
1. Segment Description (Process/Fuel Type) (limit to 500 characters):					
2. Source Classification Code	e (SCC):	3. SCC Units:			
4. Maximum Hourly Rate:	5. Maximum	Annual Rate:	6. Estimated Annual Activity Factor:		
7. Maximum % Sulfur:	8. Maximum	% Ash:	9. Million Btu per SCC Unit:		
10. Segment Comment (limit)	to 200 characters):			

Emissions	Unit I	nformation	Section	1	of	4	

F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	011	NA	EL.
PM ₁₀	011	NA ·	EL
_			
		_	
		,	
		:	

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Emissions Unit Information Section	1_	_ of	4	
Pollutant Detail Information Page	1	of	2	

$\ensuremath{\mathbf{G}}.$ Emissions unit pollutant detail information

(Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

Pollutant Detail Information				
1. Pollutant Emitted: Particulate Matter -	2. Total Percent Efficie	ency of Control:		
Total				
3. Potential Emissions:		4. Synthetically		
230 lb/hour 390.4 tons/year		Limited? [N]		
5. Range of Estimated Fugitive Emissions:				
[] 1 [] 2 [] 3	to to	ns/year		
6. Emission Factor: 0.0388 lb/mmbtu		7. Emissions		
Reference: FPL, 2003		Method Code: 0		
8. Calculation of Emissions (limit to 600 characters): 0.1 lb/mmbtu* 2300-mmbtu/hr = 230 lb/hr (sootblowing) 0.03 lb/mmbtu* 2300 mmbtu/hr = 69 lb/hr (steady-state) Axerage 0.0388 lb/mmbtu * 2300 mmbtu/hr = 89.125 lb/hr average (89.125 lb/hr* 8760 hr/yr) / 2000 lb/ton = 390.4 tons/ yr				
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): The particulate matter emission limit for 3 hrs at 0.1 lb/mmbtu and 21 hrs at 0.03 lb/mmbtu per 24 hours is equivalent to an average of 0.0388 lb/mmbtu.				
Allowable Emissions	_1 of2			
Basis for Allowable Emissions Code: OTHER	2. Future Effective-Da Emissions: May 31			
3. Requested Allowable Emissions and Units:	4. Equivalent Allowab	ole Emissions:		
0.03 lb/mmbtu	69 lb/hour 30	2.2 tons/year		
5. Method of Compliance (limit to 60 character DEP Rule 62-296.405(1)(e)2.	rs):	. •		
6. Allowable Emissions Comment (Desc. of Op	perating Method) (limit to	o 200 characters):		
Based on its negotiations with the Department, a	pplicant agrees to reduce	steady-state PM		
emissions of its fossil fueled steam boilers in Bro	oward County to 0.03 lb/	mmbtu. Equivalent		
allowable emissions are given for liquid fuel firing	ng.			

Emissions Unit Information Section	11	_ of	4	PPE Unit
Pollutant Detail Information Page	2_	_ of	2	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

Pollutant Detail Information

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
3. Potential Emissions:	4. Synthetically
lb/hour tons/year	Limited? [N]
5. Range of Estimated Fugitive Emissions:	Entitied: [14]
[] 1 [] 2 [] 3	totons/year
6. Emission Factor:	7. Emissions
Reference:	Method Code:
8. Calculation of Emissions (limit to 600 chara	cters):
•	
9. Pollutant Potential/Fugitive Emissions Com	ment (limit to 200 characters):
·	
Allowable Emissions Allowable Emissions	_2 of2
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable
OTHER	Emissions: May 31, 2006
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
0.1 lb/mmbtu	230 lb/hour 125.9 tons/year
	<u> </u>
5. Method of Compliance (limit to 60 character	rs):
DEP Rule 62-296.405(1)(e)2.	
	•
6. Allowable Emissions Comment (Desc. of O	perating Method) (limit to 200 characters):
Based on its negotiations with the Department, a	applicant agrees to reduce PM emissions of its
fossil fueled steam boilers in Broward County.	Equivalent allowable emissions are given for
liquid fuel firing and sootblowing.	
	

1

H. VISIBLE EMISSIONS INFORMATION (Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissi	ons Limitation1 of3
1. Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity:
	[] Rule [X] Other
3. Requested Allowable Opacity:	
Normal Conditions: 20 % Ex	ceptional Conditions: %
Maximum Period of Excess Opacity Allow	ed: min/hour
)
4. Method of Compliance: EPA Method 9	
5 Visible Emissions Comment (limit to 200 a	homostoma). Donad on its magatisticans with the
5. Visible Emissions Comment (limit to 200 c Department, applicant agrees to reduce the 6-m	•
fueled steam boilers in Broward County to 20%	
Compliance testing is performed annually using	· · · · · · · · · · · · · · · · · · ·
compliance testing is performed annually doing	5 DI 11 IVICATION 7.
Visible Emissions Limitation: Visible Emissi	ons Limitation2 of3
1. Visible Emissions Subtype: VE40	2. Basis for Allowable Opacity:
	[] Rule [X] Other
3. Requested Allowable Opacity:	
Normal Conditions: 40 % Ex	ceptional Conditions: 100 %
Maximum Period of Excess Opacity Allow	ed: 24 min/hour
	<u> </u>
4. Method of Compliance: EPA Method 9	
5 Will Edicion Comment (limit to 200)	Languages Daniel and the constitution and the languages
5. Visible Emissions Comment (limit to 200 of	
Department, applicant agrees to reduce visible Broward County, and limits sootblowing & loa	
hrs, with 4, six-minute periods of up to 100% of	
limit becomes effective May 31, 2006	pacity if unit has an operational COM. This
minit occomes criccive iviay 31, 2000	

Emissions Unit Information Section 1	. (of ·	4
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H. VISIBLE EMISSIONS INFORMATION (Only Regulated Emissions Units Subject to a VE Limitation)

	sible Emissions Limitation: Visible Emissi	ons Limitation3 of3
1.	Visible Emissions Subtype: VE100	2. Basis for Allowable Opacity:
		[X] Rule [] Other
3.	Requested Allowable Opacity:	
		ceptional Conditions: 100 %
	Maximum Period of Excess Opacity Allowe	ed: 60 min/hour
4.	Method of Compliance: EPA Method 9	
1	Visible Emissions Comment (limit to 200 cl	
	A.C. allow up to 100% opacity, for an unlimiters/24hrs for malfunctions.	ted time during start-up, shutdown, and up to
<u>C</u>		NITOR INFORMATION Subject to Continuous Monitoring) Monitor1 of1
1.	Parameter Code: EM	2. Pollutant(s): Visible Emissions (opacity)
3.	CMS Requirement:	[X] Rule [] Other
4.	Monitor Information:	
	Manufacturer: Phoenix Instruments, Inc.	
	Model Number: OPAC 20/20	Serial Number: OPAC - 1079
<u> </u>	T . 11 .: 70 . 10/04/00	
5.	Installation Date: 12/04/00	6. Performance Specification Test Date:
	Installation Date: 12/04/00 Continuous Monitor Comment (limit to 200	6. Performance Specification Test Date: 12/20/00

PPE	Unit	1
	CHIL	-

	Emissions	Unit Infor	mation Section	- 1	of 4
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J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION (Regulated Emissions Units Only)

Supplemental Requirements

	1.	Process Flow Diagram [X] Attached, Document ID: Part II [] Not Applicable [] Waiver Requested
	2.	Fuel Analysis or Specification [] Attached, Document ID: [X] Not Applicable [] Waiver Requested
	3.	Detailed Description of Control Equipment [X] Attached, Document ID: Part II [] Not Applicable [] Waiver Requested
	4.	Description of Stack Sampling Facilities [] Attached, Document ID: [X] Not Applicable [] Waiver Requested
	5.	Compliance Test Report
		[] Attached, Document ID:
		[] Previously submitted, Date:
		[X] Not Applicable
	6.	Procedures for Startup and Shutdown
		[] Attached, Document ID: [X] Not Applicable [] Waiver Requested
	7.	Operation and Maintenance Plan
		[] Attached, Document ID: [X] Not Applicable [] Waiver Requested
	8.	Supplemental Information for Construction Permit Application [X] Attached, Document ID: See Part II [] Not Applicable
	9.	Other Information Required by Rule or Statute [] Attached, Document ID: [X] Not Applicable
	10.	. Supplemental Requirements Comment:
1		

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation [] Attached, Document ID: [X] Not Applicable
[] Thuanes, 2004 ment 12. [11] Tot Tapphedote
12. Alternative Modes of Operation (Emissions Trading)
[] Attached, Document ID: [X] Not Applicable
13. Identification of Additional Applicable Requirements
[] Attached, Document ID: [X] Not Applicable
14. Compliance Assurance Monitoring Plan
[] Attached, Document ID: [X] Not Applicable
15. Acid Rain Part Application (Hard-copy Required)
[] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID:
[] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: N/A
[] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:N/A/
[] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID:N/A
[] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID:N/A
Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID:N/A
[X] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION (All Emissions Units)

Emissions Unit Description and Status

<u>=-</u>	Emissions the Description and Status					
1.	Type of Emissions Unit Addressed in This Section: (Check one)					
[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, 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.	Regulated or Unregulated Emissions Unit? (Check one)					
[X	[X]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.						
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Port Everglades Boiler Unit 2						
4.	Emissions Unit Identification Number: 002 [] No ID [] ID Unknown					
5.	Emissions Unit 6. Initial Startup 7. Emissions Unit Major Status Code: A Date: 04/01/61 7. Emissions Unit Major Group SIC Code: 49 [Y]					
ref Si	9. Emissions Unit Comment: (Limit to 500 Characters): The generator nameplate rating given reflects information provided to the Florida Public Service Commission (PSC) in the 10-Year Site Plan. Actual generator output may exceed the stated value, and may vary seasonally, or with changes in unit efficiency, and with fluctuations in system load demand.					

Emissions	Unit	Information	Section	2	of	4	

Emissions Unit Control Equipment

2. Control Equipment/Method Description (Limit to 200 characters per device or method):

D. Electrostatic Precipitator

E. Low NOx Burners

F. Staged Combustion

2. Control Device or Method Code(s): A = 011, B = 024, C = 025

Emissions Unit Details

1. Package Unit:

Manufacturer: Combustion Engineering / Westinghouse

Model Number:

2. Generator Nameplate Rating: 225 MW

3. Incinerator Information:

٥F Dwell Temperature:

> Dwell Time: seconds

°F Incinerator Afterburner Temperature:

B. EMISSIONS UNIT CAPACITY INFORMATION (Regulated Emissions Units Only)

` •		^
		NG
Emissions Unit Operating Capaci	ty and Schedule	
1. Maximum Heat Input Rate:	(2400 mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughp	ut Rate:	•
4. Maximum Production Rate:		
5. Requested Maximum Operating	Schedule:	
	hours/day	days/week
	weeks/year	8760 hours/year
2. Operating Capacity/Schedule	e Comment (limit to	200 characters):
	•	as firing. Maximum heat input while d for heat input is fuel sampling and
		·

	Emissions	Unit I	nformation	Section	2	of	4
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C. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

List of Applicable Regulations

The proposed addition of ESPs will not change the applicable requirements for this emission unit.				
	·			
·				
	·			

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Emissions	Unit :	Inforn	ation	Section	2	of	4	

D. EMISSION POINT (STACK/VENT) INFORMATION (Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Pl Flow Diagram? Unit 2 boile		2. Emission Po	oint Type Code: 1	,	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): NA					
4. ID Numbers or Descriptions Emissions Unit 2, Port Everglad			ission Point in Comm	non:	
5. Discharge Type Code: V	6. Stack Height: 343 feet		7. Exit Diameter: 14 feet		
8. Exit Temperature: 289 °F	9. Actual Volumetric Flow Rate: 813928.9		10. Water Vapor:	%	
11. Maximum Dry Standard Flo	12. Nonstack Emission Point Height: feet				
13. Emission Point UTM Coord	linates:				
Zone: 17 E	East (km): 587.4		North (km): 2885.2		
14. Emission Point Comment (limit to 200 characters): Information provided in item #9 above from initial Title V application. Flow rates vary depending on operating conditions.					

Emissions	T Init	Informa	tion	Section	2	οf	4	
CHUSSIONS	Unit	ипогна	uon	Section		OI	4	

E. SEGMENT (PROCESS/FUEL) INFORMATION (All Emissions Units)

Segment Description and Ra	te: Segmentl of/			
Segment Description (Proc Natural gas burned in Ur	cess/Fuel Type) (limit to 500 cha nit 2 boiler	racters):		
2. Source Classification Code 1-01-006-01	e (SCC): 3. SCC Units:	Millions of cubic feet		
4. Maximum Hourly Rate: 2.29	5. Maximum Annual Rate: 20022.86	6. Estimated Annual Activity Factor:		
7. Maximum % Sulfur: 0.0031	8. Maximum % Ash:	9. Million Btu per SCC Unit: 1050		
10. Segment Comment (limit to 200 characters): The unit is currently permitted to burn a variable combination of No. 6 residual oil, natural gas, No. 2 fuel oil, propane, or onspecification used oil from FPL operations.				
		•		

Segment Description and Rate: Segment ___2_ of __7__

Segment Description (Proc No. 6 oil burned in Unit	cess/Fuel Type) (limit to 500 ch 2 boiler	aracters):			
2. Source Classification Code 1-01-004-01	e (SCC): 3. SCC Units	s: Thousand gallons burned			
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity			
15.24	133472.56	Factor:			
7. Maximum % Sulfur: 2.5	8. Maximum % Ash:	9. Million Btu per SCC Unit:			
		152			
10. Segment Comment (limit to 200 characters): The unit is currently permitted to burn a					
variable combination of No. 6	residual oil, natural gas, No. 2 f	uel oil, propane, or on-			
specification used oil from FP	L operations.				

	- .		_	_		
Emissions	Unit Infor	mation Section	2	of	4	

Segment Description and Rate: Segment ___3_ of __7__

PPE Unit 2

E. SEGMENT (PROCESS/FUEL) INFORMATION (All Emissions Units)

4 0 0 0	/E 1/E \	/!! !: #OO !					
1. Segment Description (Prod Unit 2 boiler burning No. 2 fu	1. Segment Description (Process/Fuel Type) (limit to 500 characters): Unit 2 boiler burning No. 2 fuel oil						
	Č						
	(
2 Communification Cod	- (000)-	2 CCC II.:	The second called house				
2. Source Classification Code	e (SCC):	3. SCC Units	: Thousand gallons burned				
1-01-005-01	5 Marian	A	C Taking akad Amusus I Askiniku				
4. Maximum Hourly Rate: 16.9	5. Maximum 148147.1	Annual Rate:	6. Estimated Annual Activity				
		07 A . 1.	Factor:				
7. Maximum % Sulfur: 0.5	8. Maximum	% Asn:	9. Million Btu per SCC Unit: 136				
10.0	200 -1	· > 701	<u> </u>				
10. Segment Comment (limit to		•	• •				
variable combination of No. 6		urai gas, No. 2 r	uel oil, propane, or on-				
specification used oil from FP	L operations.						
Segment Description and Ra	ite: Segment	4 of 7					
1. Segment Description (Prod		(limit to 500 ch	aracters):				
Propane burned in Unit 2	2 boiler						
·							
2. Source Classification Code	e (SCC):	3. SCC Units	: Millions of cubic feet				
1-01-006-01		3. 300 om.	. Williams of odolo root				
4. Maximum Hourly Rate:	5. Maximum	Annual Rate:	6. Estimated Annual Activity				
2.4	21024		Factor:				
7. Maximum % Sulfur:	8. Maximum	% Ash:	9. Million Btu per SCC Unit:				
			1000				
10. Segment Comment (limit	to 200 characters	s): The unit is cu	irrently permitted to burn a				
variable combination of No. 6							

specification used oil from FPL operations.

Emissions	Unit Information	Section	2	of	4	

E. SEGMENT (PROCESS/FUEL) INFORMATION (All Emissions Units)

Segment Description and Ra	ite: Segment	_5 of7			
Segment Description (Proc On-specification used oil	• • •	•	racters):		
2. Source Classification Code 1-01-013-02	e (SCC):	3. SCC Units:	Thousand gallons burned		
4. Maximum Hourly Rate: 22.43	5. Maximum 1,500	Annual Rate:	6. Estimated Annual Activity Factor:		
7. Maximum % Sulfur: 2.5	8. Maximum	% Ash:	9. Million Btu per SCC Unit: 136		
10. Segment Comment (limit to 200 characters): The unit is currently permitted to burn a variable combination of No. 6 residual oil, natural gas, No. 2 fuel oil, propane, or onspecification used oil from FPL operations. Maximum Annual Rate is for Emission Units 001 through 004					
Segment Description and Ra	ite: Segment	_6 of7			
1. Segment Description (Prod Unit 2 boiler co-firing all post used oil, #2 fuel oil, and propa	sible combination	7			
2. Source Classification Code 1-01	e (SCC):	3. SCC Units:	Millions of cubic feet		
4. Maximum Hourly Rate:	5. Maximum	Annual Rate:	6. Estimated Annual Activity Factor:		
7. Maximum % Sulfur: 2.5	8. Maximum	% Ash:	9. Million Btu per SCC Unit:		
10. Segment Comment (limit)	to 200 characters	s): The unit is cur	rrently permitted to burn a		

lb/mmbtu.

variable combination of above fuels in a ratio that will result in a max. SO₂ emission of 2.75

E. SEGMENT (PROCESS/FUEL) INFORMATION (All Emissions Units)

Segment Description and Ra	ite: Segment	_/ or/	
Segment Description (Pro- Boiler chemical cleaning		•	•
undertaken while firing natura	ıl gas or residual	oil.	
·	•		
2. Source Classification Cod	e (SCC)·	3 SCC Unite	: Thousand gallons
1-01-013-01	c (SCC).	J. See omis	. Thousand ganons
4. Maximum Hourly Rate:	5. Maximum	L	6. Estimated Annual Activity
3	500	minda Raic.	Factor:
7. Maximum % Sulfur:	8. Maximum	% Ash·	9. Million Btu per SCC Unit:
0.0031	·	,0 11011.	1050
10. Segment Comment (limit	to 200 characters	s): Items 6, 7, 8,	& 9 do not apply. This activity
,		•	I guidance, and EPA waste rules
(40 CFR 279.72).			
•			
Sagment Description and De	sto. Sagment	of	
Segment Description and Ra			
1. Segment Description (Pro-	cess/Fuel Type)	(limit to 500 cha	aracters):
2. Source Classification Cod	e (SCC):	3. SCC Units	•
2. Source classification coa	c (500).	3. Geo cints	•
4. Maximum Hourly Rate:	5. Maximum	Annual Rate:	6. Estimated Annual Activity
in transmining flowing flower.		i illiani kuto.	Factor:
7 Maximum % Sulfur:	8 Maximum		9 Million Btu per SCC Unit:

10. Segment Comment (limit to 200 characters):

F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	Pollutant Regulatory Code
PM	011	NÀ	EL
PM ₁₀	011	NA ·	EL
			·

Emissions Unit Information Section2_ of4	PPE Unit 2
Pollutant Detail Information Page1_ of2_	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

Pollutant Detail Information					
Pollutant Emitted: Particulate Matter - Total	2. Total Percent Efficiency of Control:				
3. Potential Emissions: 230 lb/hour 390.4 tons/year	4. Synthetically Limited? [N]				
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3	to tons/year				
6. Emission Factor: 0.0388 lb/mmbtu Reference: FPL, 2003	7. Emissions Method Code: 0				
8. Calculation of Emissions (limit to 600 characters): 0.1 lb/mmbtu* 2300 mmbtu/hr = 230 lb/hr (sootblowing) 0.03 lb/mmbtu* 2300 mmbtu/hr = 69 lb/hr (steady-state) Average=0:0388 lb/mmbtu * 2300 mmbtu/hr = 89.125 lb/hr average (89.125 lb/hr* 8760 hr/yr) / 2000 lb/ton = 390.4 tons/ yr					
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): The particulat matter emission limit for 3 hrs at 0.1 lb/mmbtu and 21 hrs at 0.03 lb/mmbtu per 24 hours is equivalent to an average of 0.0388 lb/mmbtu.					
Allowable Emissions	_1 of2				
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions: Oct. 31, 2005				
3. Requested Allowable Emissions and Units: 0.03 lb/mmbtu	4. Equivalent Allowable Emissions: 69 lb/hour 302.2 tons/year				
5.—Method of Compliance (limit to 60 character DEP Rule 62-296.405(1)(e)2.	rs):				
6. Allowable Emissions Comment (Desc. of Operation Based on its negotiations with the Department, a emissions of its fossil fueled steam boilers in Br allowable emissions are given for liquid fuel firm	applicant agrees to reduce steady-state PM roward County to 0.03 lb/mmbtu. Equivalent				

Emissions Unit Information Section	2_	_ of _	4_	
Pollutant Detail Information Page	2	_ of _	2_	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

Pollutant Detail Information

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:		
3. Potential Emissions:	4. Synthetically		
lb/hour tons/year	Limited? []		
5. Range of Estimated Fugitive Emissions:			
[] 1 [] 2 [] 3	to tons/year		
6. Emission Factor:	7. Emissions		
Reference:	Method Code:		
8. Calculation of Emissions (limit to 600 chara	cters):		
	•		
9. Pollutant Potential/Fugitive Emissions Com	ment (limit to 200 characters):		
·			
Allowable Emissions	_2 of2		
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable		
OTHER	Emissions: Oct. 31, 2005		
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:		
0.1 lb/mmbtu 230 lb/hour 125.9 tons/year			
5. Method of Compliance (limit to 60 characte			
• ·	10).		
6 Allewakia Emissiana Cammant (Dana af O	and the Mathed Minister 200 also materials		
1			
· · · · · · · · · · · · · · · · · · ·			
liquid fuel firing and sootblowing.	Equitation anomable officionis are given for		
DEP Rule 62-296.405(1)(e)2. 6. Allowable Emissions Comment (Desc. of O Based on its negotiations with the Department, a fossil fueled steam boilers in Broward County.	perating Method) (limit to 200 characters): applicant agrees to reduce PM emissions of its		
· ·			

Emissions	Unit	Information	Section	2	of	4	

H. VISIBLE EMISSIONS INFORMATION (Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissi	ons Limitation1 of3
1. Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity:
	[] Rule [X] Other
3. Requested Allowable Opacity:	
Normal Conditions: 20 % Exe	ceptional Conditions: %
Maximum Period of Excess Opacity Allowe	ed: min/hour
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment (limit to 200 c.	haracters): Based on its negotiations with the
Department, applicant agrees to reduce the 6-m	,
fueled steam boilers in Broward County to 20%	
Compliance testing is performed annually using	
Compitative testing is performed annually using	SEL A Michiga 7.
Visible Emissions Limitation: Visible Emissi	ons Limitation2 of3
1. Visible Emissions Subtype: VE40	2. Basis for Allowable Opacity:
	[] Rule [X] Other
3. Requested Allowable Opacity:	
Normal Conditions: 40 % Exc	ceptional Conditions: 100 %
Maximum Period of Excess Opacity Allowe	ed: 24 min/hour
4. Method of Compliance: EPA Method 9	-
·	
5. Visible Emissions Comment (limit to 200 c	•
Department, applicant agrees to reduce visible e	
Broward County, and limits sootblowing & load	d changing to 40% opacity for up to 3hrs/24
hrs, with 4, six-minute periods of up to 100% o	pacity if unit has an operational COM. This
limit becomes effective Oct. 31, 2005	

Emissions	Unit Information Section	2.	οf	4
LIMOSIONS	Cint intol manon Section		UL	

H. VISIBLE EMISSIONS INFORMATION (Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissi	ons Limitation3 of3
1. Visible Emissions Subtype: VE100	Basis for Allowable Opacity: [X] Rule [] Other
3. Requested Allowable Opacity: Normal Conditions: % Ex Maximum Period of Excess Opacity Allower	ceptional Conditions: 100 % ed: 60 min/hour
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment (limit to 200 c F.A.C. allow up to 100% opacity, for an unlimi 2hrs/24hrs for malfunctions.	
	NITOR INFORMATION Subject to Continuous Monitoring)
1. Parameter Code: EM	2. Pollutant(s): Visible Emissions (opacity)
3. CMS Requirement:	[X] Rule [] Other
4. Monitor Information: Manufacturer: Phoenix Instruments, Inc. Model Number: OPAC 20/20	Serial Number: OPAC - 1079
5. Installation Date: 12/04/00	6. Performance Specification Test Date: 12/20/00
7. Continuous Monitor Comment (limit to 200	characters): Required by 40 CFR 75.

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	Emissions	Unit Information	Section	2	of	4
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J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION (Regulated Emissions Units Only)

Supplemental Requirements

1.	Process Flow Diagram	
	[] Attached, Document ID:	[X] Not Applicable [] Waiver Requested
2.	Fuel Analysis or Specification	
	[] Attached, Document ID:	[X] Not Applicable [] Waiver Requested
3.	Detailed Description of Control Equipment	ment
	[] Attached, Document ID:	[X] Not Applicable [] Waiver Requested
4.	Description of Stack Sampling Facilities	es
	[X] Attached, Document ID: PPEU2_4	4.bmp [] Not Applicable [] Waiver Requested
5.	Compliance Test Report	
	[] Attached, Document ID:	
	[] Previously submitted, Date:	<u>.</u>
	[X] Not Applicable	
6.	Procedures for Startup and Shutdown	
	[] Attached, Document ID:	[X] Not Applicable [] Waiver Requested
7.	Operation and Maintenance Plan	
	[] Attached, Document ID:	_ [X] Not Applicable [] Waiver Requested
8.	Supplemental Information for Construc	etion Permit Application
	[X] Attached, Document ID: See Part	II [] Not Applicable
9.	Other Information Required by Rule or	Statute
	[] Attached, Document ID:	_ [X] Not Applicable
10	. Supplemental Requirements Comment	:

Emiccione	Unit In	formation	Section	2	οf	1	
Emissions	Unit in	tormation	Section	L	O1	4	

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[] Attached, Document ID: [X] Not Applicable
12. Alternative Modes of Operation (Emissions Trading)
[] Attached, Document ID: [X] Not Applicable
13. Identification of Additional Applicable Requirements
[] Attached, Document ID: [X] Not Applicable
14. Compliance Assurance Monitoring Plan
[] Attached, Document ID: [X] Not Applicable
15. Acid Rain Part Application (Hard-copy Required)
[] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID:
[] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: N/A
[] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:N/A/
[] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID:N/A
[] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID:N/A _
[] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID:N/A
[X] Not Applicable

Emissions	Unit :	Information	Section	3	of	4	

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION (All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)				
[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, 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. Regulated or Unregulated Emissions Unit? (Check one)				
[X] 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.				
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Port Everglades Boiler Unit 3				
4. Emissions Unit Identification Number: 003 [] No ID [] ID Unknown				
5. Emissions Unit Startup Status Code: A Date: 06/01/64 7. Emissions Unit Major Status Code: 49 [Y]				
9. Emissions Unit Comment: (Limit to 500 Characters) The generator nameplate rating given reflects information provided to the Florida Public Service Commission (PSC) in the 10-Year Site Plan. Actual generator output may exceed the stated value, and may vary seasonally, or with changes in unit efficiency, and with fluctuations in system load demand.				

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Emissions	Unit Information Section	3	of	4
			VI	T

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

A. Electrostatic Precipitator

B. Low NOx Burners

C. Staged Combustion

2. Control Device or Method Code(s): A = 011, B = 024, C = 025

Emissions Unit Details

1. Package Unit:

Manufacturer: Foster Wheeler / General Electric

Model

Number:

2. Generator Nameplate Rating:

402 MW

3. Incinerator Information:

Dwell Temperature:

٥F

Dwell Time:

seconds

Incinerator Afterburner Temperature:

Emissions	Unit Information	Section	3	of	4	
		occuon.		U.	-	

B. EMISSIONS UNIT CAPACITY INFORMATION (Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:	41	180 mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throug	hput Rate:	
4. Maximum Production Rate:		
5. Requested Maximum Operat	ing Schedule:	
	hours/day	days/week
	weeks/year	8760 hours/year
2. Operating Capacity/Schedule	Comment (limit to 200 chara	acters):
The maximum heat input given a residual oil 4000 mmbtu/hr.	bove reflects natural gas firir	ng. Maximum heat input for

Emissions	Unit Information So	ection 3	of	4	

C. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

List of Applicable Regulations

The proposed addition of ESPs will not change the applicable regulations for this emission unit.				
·				
·				

D. EMISSION POINT (STACK/VENT) INFORMATION (Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Pl Flow Diagram? EU 3		2. Emission Point Type Code: 1		
3. Descriptions of Emission Po 100 characters per point): E				(limit to
4. ID Numbers or Descriptions	s of Emission U	nits with this Emi	ssion Point in Comm	ion:
5. Discharge Type Code: V	6. Stack Heig	ht:	7. Exit Diameter:	
	343 feet		18.1 feet	
8. Exit Temperature:	9. Actual Vol	umetric Flow	10. Water Vapor:	
287 °F	Rate: 126			%
11. Maximum Dry Standard Flo	w Pata:	acfm	 mission Point Height:	 -
11. Waximum Diy Standard Pic	dscfm	12. IVOIISIACK LI	mission I omit Height.	feet
13. Emission Point UTM Coord	linates:			÷
Zone: 17 E	ast (km): 587.4	Norti	h (km): 2885.2	
14. Emission Point Comment (l			_	
from initial Title V application.	Flow rates meas	sured vary depend	ding on operating con	diditons.
				•

Emissions Unit Information Section 3	of	4	
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Segment Description and Ra	ie: Segment	101/			
2. Segment Description (Process/Fuel Type) (limit to 500 characters): Natural gas burned in Unit 3 Boiler					
2. Source Classification Code 1-01-006-01	e (SCC):	3. SCC Units	: Million cubic feet burned		
4. Maximum Hourly Rate: 3.98	5. Maximum A 34,873	Annual Rate:	6. Estimated Annual Activity Factor:		
7. Maximum % Sulfur: 0.0031	8. Maximum %	% Ash:	9. Million Btu per SCC Unit: 1050		
10. Segment Comment (limit to variable combination of No. 6 specification used oil from FP.	residual oil, natur		• •		
Segment Description and Ra	te: Segment	2 of7			
Segment Description (Proc Number 6 fuel oil burned in U	• • •	(limit to 500 ch	aracters):		
2. Source Classification Code 1-01-004-01	2. Source Classification Code (SCC):1-01-004-013. SCC Units: Thousand gallons burned				
4. Maximum Hourly Rate: 26.3	5. Maximum A 230,526	Annual Rate:	6. Estimated Annual Activity Factor:		
7. Maximum % Sulfur: 2.5	8. Maximum %	% Ash:	9. Million Btu per SCC Unit:152		
10. Segment Comment (limit to 200 characters): This unit is currently permitted to burn a variable combination of No. 6 residual oil, natural gas, No. 2 fuel oil, propane, or onspecification used oil from FPL operations					

Emissions Unit Information Section	3	of	4	
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Segment Description and Ra	ite: Segment	_3 of7			
1. Segment Description (Process/Fuel Type) (limit to 500 characters): Unit 3 boiler burning No. 2 fuel oil					
2. Source Classification Code	e (SCC)·	3 SCC Units	Thousand gallons burned		
1-01-005-01	c (3CC).	J. See omis	Thousand ganons burned		
4. Maximum Hourly Rate: 29.41	5. Maximum 2 257,647	Annual Rate:	6. Estimated Annual Activity Factor:		
7. Maximum % Sulfur: 0.5	8. Maximum ⁶	% Ash:	9. Million Btu per SCC Unit: 136		
10. Segment Comment (limit variable combination of No. 6 specification used oil from FP	residual oil, natu	•			
Segment Description and Ra	ite: Segment	_4 of7			
1. Segment Description (Prod	cess/Fuel Type)	(limit to 500 ch	aracters):		
Propane burned in Unit 3					
			·		
2. Source Classification Code (SCC): 3. SCC Units: Million cubic feet burned 1-01-006-01					
4. Maximum Hourly Rate: 4.18	5. Maximum <i>i</i> 36,617	Annual Rate:	6. Estimated Annual Activity Factor:		
7. Maximum % Sulfur: 1	8. Maximum	% Ash:	9. Million Btu per SCC Unit: 1000		
10. Segment Comment (limit to 200 characters): This unit is currently permitted to burn a variable combination of No. 6 residual oil, natural gas, No. 2 fuel oil, propane, or onspecification used oil from FPL operations					
1					

Emissions	Unit I	nformation	Section	3	οf	4	
CITATIONIA	Omt I	IIIVI IIIAWVII	Sccuoii	J	U.	7	

Segment Description and Ra	ite: Segment	.5 of7		
Segment Description (Process/Fuel Type) (limit to 500 characters): On-Specification used oil burned in Unit 3 boiler				
2. Source Classification Code 1-01-013-02	e (SCC):	3. SCC Units:	Thousand gallons burned	
4. Maximum Hourly Rate: 29.41	5. Maximum <i>A</i> 1,500	Annual Rate:	6. Estimated Annual Activity Factor:	
7. Maximum % Sulfur: 2.5	8. Maximum 9	6 Ash:	9. Million Btu per SCC Unit: 136	
10. Segment Comment (limit to variable combination of No. 6 specification used oil from FP through 004.	residual oil, natu	ral gas, No. 2 fu	el oil, propane, or on-	
Segment Description and Ra	te: Segment	6 of7		
1. Segment Description (Process/Fuel Type) (limit to 500 characters): Unit 3 boiler firing all possible combinations of natural gas, residual oil, on-specification used oil, #2 fuel oil, and propane				
2. Source Classification Code (SCC): 3. SCC Units: Million cubic feet and thousand gallons				
4. Maximum Hourly Rate:	5. Maximum A	Annual Rate:	6. Estimated Annual Activity Factor:	
7. Maximum % Sulfur: 2.5	8. Maximum 9	% Ash:	9. Million Btu per SCC Unit:	
10. Segment Comment (limit to burn a mixture of the above fur 2.75 lb/mmbtu.	· · · · · · · · · · · · · · · · · · ·	_	- · · · · · · · · · · · · · · · · · · ·	

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Emissions	Unit .	Information	n Section	3	OI	4	

Segment Description and Ra	ate: Segment	_/ 01/			
1. Segment Description (Process/Fuel Type) (limit to 500 characters): Boiler chemical cleaning waste evaporated in Unit 3. This process may be undertaken while firing natural gas or residual fuel oil.					
2. Source Classification Cod 1-01-013-01	e (SCC):	3. SCC Units	: Thousand gallons burned		
4. Maximum Hourly Rate: 3	5. Maximum A	Annual Rate:	6. Estimated Annual Activity Factor:		
7. Maximum % Sulfur:	8. Maximum 9	% Ash:	9. Million Btu per SCC Unit:		
			& 9 do not apply. This activity I guidance and EPA waste rules		
Segment Description and Ra	ate: Segment	of			
Segment Description (Pro					
2. Source Classification Cod	e (SCC):	3. SCC Unit	s:		
4. Maximum Hourly Rate:	5. Maximum A	Annual Rate:	6. Estimated Annual Activity Factor:		
7. Maximum % Sulfur:	8. Maximum 9	% Ash:	9. Million Btu per SCC Unit:		
10. Segment Comment (limit	to 200 characters)):			

F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	011	NA	EL
PM ₁₀	011	NA	EL
·			
	·	·	,
·		·	
	·		

Emissions Unit Information Section	3_	_ of _	4	_
Pollutant Detail Information Page	1	_ of _	2	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

Pollutant Emitted: PM - Total	2. Total Percent Efficiency of Control:					
3. Potential Emissions: 400 lb/hour 679.8 tons/year	4. Synthetically Limited? [N]					
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3	to tons/year					
6. Emission Factor: 0.1 lb/mmbtu	7. Emissions					
Reference: FPL, 2003	Method Code: 0					
8. Calculation of Emissions (limit to 600 characters): 0.1 lb/mmbtu * 4000 mmbtu/hr = 400 lb/hr. (sootblowing) 0.03/lb/mmbtu * 4000 mmbtu/hr = 120 lb/hr. (steady-state) 0:0388 lb/mmbtu * 4000 mmbtu/hr = 155.2 lb/hr. average (155.2 lb/hr * 8760 hr/ yr) /2000 lb/ton = 679.8 tons/yr						
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): The particulate matter emission limit for 3 hrs at 0.1 lb/mmbtu and 21 hrs at 0.03 lb/mmbtu per 24 hours is equivalent to an average of 0.0388 lb/mmbtu.						
Allowable Emissions	_1 of2					
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions: Oct. 31, 2007					
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:					
0.03 lb/mmbtu	120 lb/hour 525.6 tons/year					
5. Method of Compliance (limit to 60 characters): DEP Rule 62-296.405(1)(e)2.						
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Based on its negotiations with the Department, applicant agrees to reduce steady-state PM emissions of its fossil fueled steam boilers in Broward County to 0.03 lb/mmbtu. Equivalent allowable emissions are given for liquid fuel firing.						

Emissions Unit Information Section	_3_	of _	4	
Pollutant Detail Information Page	2	of	2	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

Pollutant Detail Information

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
3. Potential Emissions:	4. Synthetically
lb/hour tons/year	Limited? []
5. Range of Estimated Fugitive Emissions:	·
[] 1 [] 2 [] 3	to tons/year
6. Emission Factor:	7. Emissions
Reference:	Method Code:
8. Calculation of Emissions (limit to 600 chara	ecters):
9. Pollutant Potential/Fugitive Emissions Com	ment (limit to 200 characters):
2. Tonatant Fotomias Fagin to Emissions Com	
Allowable Emissions Allowable Emissions	_2 of2
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable
OTHER	Emissions: Oct. 31, 2007
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
0.1 lb/mmbtu	400 lb/hour 219 tons/year
5. Method of Compliance (limit to 60 characte DEP Rule 62-296.405(1)(e)2.	rs):
6. Allowable Emissions Comment (Desc. of O	
Based on its negotiations with the Department,	• • • • • • • • • • • • • • • • • • • •
fossil fueled steam boilers in Broward County.	Equivalent allowable emissions are given for
liquid fuel firing and sootblowing.	

Emissions	Unit Information Section	3	Ωf	1	
enussions :	Unit information Section	3	OI	4	

H. VISIBLE EMISSIONS INFORMATION (Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emission	ons Limitation1 of3
1. Visible Emissions Subtype: VE20	Basis for Allowable Opacity: [] Rule
3. Requested Allowable Opacity: Normal Conditions: 20 % Exc Maximum Period of Excess Opacity Allower	ceptional Conditions: % ed: min/hour
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment (limit to 200 cl Department, applicant agrees to reduce the 6-min fueled steam boilers in Broward County to 20% Compliance testing is performed annually using	inute average visible emissions of its fossil This limit becomes effective Oct. 31, 2007.
Visible Emissions Limitation: Visible Emission	ons Limitation2 of3
1. Visible Emissions Subtype: VE40	Basis for Allowable Opacity: [] Rule [X] Other
3. Requested Allowable Opacity: Normal Conditions: 40 % Exc Maximum Period of Excess Opacity Allower	ceptional Conditions: 100 % ed: 24 min/hour
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment (limit to 200 cl Department, applicant agrees to reduce visible of Broward County, and limits sootblowing & load hrs, with 4, six-minute periods of up to 100% of limit becomes effective Oct. 31, 2007.	emissions of its fossil fueled steam boilers in d changing to 40% opacity for up to 3hrs/24

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Emissions	Unit	Information	Section	3	of	4	
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H. VISIBLE EMISSIONS INFORMATION (Only Regulated Emissions Units Subject to a VE Limitation)

<u>Visible Emissions Limitation:</u> Visible Emissions Limitation3 of3						
1. Visible Emissions Subtype: VE100	2. Basis for Allowable Opacity:					
	[X] Rule [] Other					
3. Requested Allowable Opacity:						
Normal Conditions: %	ceptional Conditions: 100 %					
Maximum Period of Excess Opacity Allow	ed: 60 min/hour					
4. Method of Compliance: EPA Method 9						
5. Visible Emissions Comment (limit to 200 c	characters): DEP Rule 62-210.700(1) and (2),					
F.A.C. allow up to 100% opacity, for an unlim	ited time during start-up, shutdown, and up to					
2hrs/24hrs for malfunctions.						
<u>.</u>	· · · · · · · · · · · · · · · · · · ·					
I. CONTINUOUS MONITOR INFORMATION (Only Regulated Emissions Units Subject to Continuous Monitoring)						
Continuous Monitoring System: Continuous	s Monitor1 of1					
Continuous Monitoring System: Continuous 1. Parameter Code: VE	Monitor1 of1 2. Pollutant(s): Opacity					
1. Parameter Code: VE	2. Pollutant(s): Opacity					
Parameter Code: VE CMS Requirement:	2. Pollutant(s): Opacity					
 Parameter Code: VE CMS Requirement: Monitor Information: 	2. Pollutant(s): Opacity					
 Parameter Code: VE CMS Requirement: Monitor Information: Manufacturer: Phoenix Instruments, Inc. 	2. Pollutant(s): Opacity [X] Rule [] Other					
 Parameter Code: VE CMS Requirement: Monitor Information: Manufacturer: Phoenix Instruments, Inc. Model Number: OPAC 20/20 	2. Pollutant(s): Opacity [X] Rule [] Other Serial Number: OPAC - 1081					
 Parameter Code: VE CMS Requirement: Monitor Information: Manufacturer: Phoenix Instruments, Inc. Model Number: OPAC 20/20 	2. Pollutant(s): Opacity [X] Rule [] Other Serial Number: OPAC - 1081 6. Performance Specification Test Date: 12/03/00					
 Parameter Code: VE CMS Requirement: Monitor Information: Manufacturer: Phoenix Instruments, Inc. Model Number: OPAC 20/20 Installation Date: 11/19/00 	2. Pollutant(s): Opacity [X] Rule [] Other Serial Number: OPAC - 1081 6. Performance Specification Test Date: 12/03/00					
 Parameter Code: VE CMS Requirement: Monitor Information: Manufacturer: Phoenix Instruments, Inc. Model Number: OPAC 20/20 Installation Date: 11/19/00 	2. Pollutant(s): Opacity [X] Rule [] Other Serial Number: OPAC - 1081 6. Performance Specification Test Date: 12/03/00					
 Parameter Code: VE CMS Requirement: Monitor Information: Manufacturer: Phoenix Instruments, Inc. Model Number: OPAC 20/20 Installation Date: 11/19/00 	2. Pollutant(s): Opacity [X] Rule [] Other Serial Number: OPAC - 1081 6. Performance Specification Test Date: 12/03/00					
 Parameter Code: VE CMS Requirement: Monitor Information: Manufacturer: Phoenix Instruments, Inc. Model Number: OPAC 20/20 Installation Date: 11/19/00 	2. Pollutant(s): Opacity [X] Rule [] Other Serial Number: OPAC - 1081 6. Performance Specification Test Date: 12/03/00					
 Parameter Code: VE CMS Requirement: Monitor Information: Manufacturer: Phoenix Instruments, Inc. Model Number: OPAC 20/20 Installation Date: 11/19/00 	2. Pollutant(s): Opacity [X] Rule [] Other Serial Number: OPAC - 1081 6. Performance Specification Test Date: 12/03/00					

DEP Form No. 62-210.900(1) – Form Effective: 2/11/99

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Emissions Unit Information Section 3 of 4

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION (Regulated Emissions Units Only)

Supplemental Requirements

1.	Process Flow Diagram	
	[] Attached, Document ID:	[X] Not Applicable [] Waiver Requested
2.	Fuel Analysis or Specification	
•	[] Attached, Document ID:	[X] Not Applicable [] Waiver Requested
3.	Detailed Description of Control Equipm	nent
	[x] Attached, Document ID: Part II	[] Not Applicable [] Waiver Requested
4.	Description of Stack Sampling Facilities	es s
	[] Attached, Document ID:	[X] Not Applicable [] Waiver Requested
5.	Compliance Test Report	
	[] Attached, Document ID:	-
	[] Previously submitted, Date:	
	[X] Not Applicable	·
	[A] Not Applicable	
6.	Procedures for Startup and Shutdown	
	[] Attached, Document ID:	[X] Not Applicable [] Waiver Requested
7.	Operation and Maintenance Plan	· ·
	[] Attached, Document ID:	[X] Not Applicable [] Waiver Requested
8.	Supplemental Information for Construc	tion Permit Application
	[X] Attached, Document ID: Part II	[] Not Applicable
9.	Other Information Required by Rule or	Statute
	[] Attached, Document ID:	[X] Not Applicable
10	. Supplemental Requirements Comment:	
1		

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Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[] Attached, Document ID: [X] Not Applicable
12. Alternative Modes of Operation (Emissions Trading)
[] Attached, Document ID: [X] Not Applicable
13. Identification of Additional Applicable Requirements
[] Attached, Document ID: [X] Not Applicable
14. Compliance Assurance Monitoring Plan
[] Attached, Document ID: [X] Not Applicable
15. Acid Rain Part Application (Hard-copy Required)
[] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID:
[] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID:N/A
[] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:N/A/
[] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID:N/A
[] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID:N/A _
[] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID:N/A
[X] Not Applicable

Emissions	Unit	Information	Section	4	of	4	
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III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION (All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)					
[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, 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. Regulated or Unregulated Emissions Unit? (Check one)					
[X] 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.					
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Port Everglades Boiler Unit 4					
4. Emissions Unit Identification Number: 004 [] No ID [] ID Unknown					
5. Emissions Unit Startup Status Code: A Date: 04/01/65 7. Emissions Unit Major Group SIC Code: 49 [Y]					
9. Emissions Unit Comment: (Limit to 500 Characters) The generator nameplate rating given reflects information provided to the Florida Public Service Commission (PSC) in the 10-Year Site Plan. Actual generator output may exceed the stated value, and may vary seasonally, or with changes in unit efficiency, and with fluctuations in system load demand.					

Emissions	Unit	Information	Section	4	of	4	

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method)
--

- A. Electrostatic Precipitator
- B. Low NOx Burners
- C. Staged Combustion

2. Control Device or Method Code(s): A = 011, B = 024, C = 025,

Emissions Unit Details

1. Package Unit:

Manufacturer: Foster Wheeler / General Electric

Model

Number:

2. Generator Nameplate Rating:

402 MW

3. Incinerator Information:

Dwell Temperature:

°F

Dwell Time:

seconds

Incinerator Afterburner Temperature:

F

Emissions	Unit	Information	Section	4	4	of	4	

B. EMISSIONS UNIT CAPACITY INFORMATION (Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1.	Maximum Heat Input Rate:		4180	mmBtu/hr
2.	Maximum Incineration Rate:	lb/hr		tons/day
3.	Maximum Process or Through	put Rate:		
4.	Maximum Production Rate:			
5.	Requested Maximum Operation	g Schedule:		
		hours/day		days/week
		weeks/year		8760 hours/year
3.	Operating Capacity/Schedule (Comment (limit to 200 c	character	rs):
1	e maximum heat input given ab idual oil 4000 mmbtu/hr.	ove reflects natural gas	firing. N	Maximum heat input for

Emissions	Unit Information Secti	on 4 of	4

C. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

List of Applicable Regulations

The proposed addition of ESPs will not change the applicable regulations for this emission unit.				
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:	<u> </u>			
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·				
-	· · · · · · · · · · · · · · · · · · ·			

D. EMISSION POINT (STACK/VENT) INFORMATION (Regulated Emissions Units Only)

Emission Point Description and Type

1.	dentification of Point on Plot Plan or Plow Diagram? EU 4 2. Emission Point Type Code: 1						
3.	_	ns of Emission Points Comprising this Emissions Unit for VE Tracking (limit to sters per point): Emission Unit 4 – Port Everglades Unit 4 Boiler					
				,			
4.	ID Numbers or Descriptions	s of Emission Ur	nits with this Emi	ssion Point in Commo	on:		
5.	Discharge Type Code: V	6. Stack Height 343 feet	ht:	7. Exit Diameter:			
				18.1 feet 10. Water Vapor:			
8.	Exit Temperature: 287 °F		9. Actual Volumetric Flow Rate: 1263180.6		%		
11	Maximum Dry Standard Flo	Doto:	acfm	nission Doint Unight:			
11.	Waxiiiuiii Diy Standard Pic	dscfm	12. Nonstack Emission Point Height: feet				
13.	Emission Point UTM Coord	linates:					
	Zone: 17 E	ast (km): 587.4	Norti	h (km): 2885.2			
	Emission Point Comment (Im initial Title V application.		•	-	9 above		
				·	,		

Emissions	Unit Information Section	4	of	4	

Segment Description and Rate: Segment10i/								
3. Segment Description (Process/Fuel Type) (limit to 500 characters): Natural gas burned in Unit 4 Boiler								
·								
•								
2. Source Classification Code (SCC):1-01-006-013. SCC Units: Million cubic feet burned								
4. Maximum Hourly Rate:	5. Maximum A	Annual Rate:	6. Estimated Annual Activity					
3.98	34,873		Factor:					
7. Maximum % Sulfur: 0.0031	8. Maximum %	Ash:	9. Million Btu per SCC Unit: 1050					
10. Segment Comment (limit)	to 200 characters)	: This unit is cu	irrently permitted to burn a					
variable combination of No. 6	residual oil, natu	ral gas, No. 2 fu	uel oil, propane, or on-					
specification used oil from FP	L operations							
	•		·•					
			•					
			· .					
Segment Description and Rate: Segment2_ of7								
Segment Description and Ra	te: Segment	2 of7						
1. Segment Description (Prod	cess/Fuel Type)		aracters):					
	cess/Fuel Type)		aracters):					
1. Segment Description (Prod	cess/Fuel Type)		aracters):					
1. Segment Description (Prod	cess/Fuel Type)		aracters):					
1. Segment Description (Prod	cess/Fuel Type)		aracters):					
1. Segment Description (Prod	cess/Fuel Type)		aracters):					
Segment Description (Prod Number 6 fuel oil burned in U Source Classification Code	cess/Fuel Type) Init 4 Boiler	(limit to 500 ch	aracters): s: Thousand gallons burned					
 Segment Description (Prod Number 6 fuel oil burned in U Source Classification Code 1-01-004-01 	cess/Fuel Type) Init 4 Boiler e (SCC):	(limit to 500 ch	s: Thousand gallons burned					
 Segment Description (Prod Number 6 fuel oil burned in U Source Classification Code 1-01-004-01 Maximum Hourly Rate: 	cess/Fuel Type) Init 4 Boiler e (SCC):	(limit to 500 ch	s: Thousand gallons burned 6. Estimated Annual Activity					
 Segment Description (Prod Number 6 fuel oil burned in U Source Classification Code 1-01-004-01 	cess/Fuel Type) Init 4 Boiler e (SCC):	(limit to 500 ch	s: Thousand gallons burned					
 Segment Description (Prod Number 6 fuel oil burned in U Source Classification Code 1-01-004-01 Maximum Hourly Rate: 26.3 	cess/Fuel Type) Init 4 Boiler e (SCC): 5. Maximum A 230,526	(limit to 500 ch	s: Thousand gallons burned 6. Estimated Annual Activity Factor:					
 Segment Description (Prod Number 6 fuel oil burned in U Source Classification Code 1-01-004-01 Maximum Hourly Rate: 26.3 	cess/Fuel Type) Init 4 Boiler e (SCC): 5. Maximum A 230,526 8. Maximum %	3. SCC Units	 5: Thousand gallons burned 6. Estimated Annual Activity Factor: 9. Million Btu per SCC Unit: 152 					
 Segment Description (Prod Number 6 fuel oil burned in U Source Classification Code 1-01-004-01 Maximum Hourly Rate: 26.3 Maximum % Sulfur: 2.5 	cess/Fuel Type) finit 4 Boiler e (SCC): 5. Maximum A 230,526 8. Maximum % to 200 characters)	3. SCC Unitannual Rate: 6 Ash: : This unit is cu	s: Thousand gallons burned 6. Estimated Annual Activity Factor: 9. Million Btu per SCC Unit: 152 urrently permitted to burn a					
 Segment Description (Prod Number 6 fuel oil burned in U Source Classification Code 1-01-004-01 Maximum Hourly Rate: 26.3 Maximum % Sulfur: 2.5 Segment Comment (limit 6 	cess/Fuel Type) Init 4 Boiler 6 (SCC): 5. Maximum A 230,526 8. Maximum % to 200 characters) residual oil, natu	3. SCC Unitannual Rate: 6 Ash: : This unit is cu	s: Thousand gallons burned 6. Estimated Annual Activity Factor: 9. Million Btu per SCC Unit: 152 urrently permitted to burn a					
 Segment Description (Prod Number 6 fuel oil burned in U Source Classification Code 1-01-004-01 Maximum Hourly Rate: 26.3 Maximum % Sulfur: 2.5 Segment Comment (limit to variable combination of No. 6 	cess/Fuel Type) Init 4 Boiler 6 (SCC): 5. Maximum A 230,526 8. Maximum % to 200 characters) residual oil, natu	3. SCC Unitannual Rate: 6 Ash: : This unit is cu	s: Thousand gallons burned 6. Estimated Annual Activity Factor: 9. Million Btu per SCC Unit: 152 urrently permitted to burn a					
 Segment Description (Prod Number 6 fuel oil burned in U Source Classification Code 1-01-004-01 Maximum Hourly Rate: 26.3 Maximum % Sulfur: 2.5 Segment Comment (limit to variable combination of No. 6 	cess/Fuel Type) Init 4 Boiler 6 (SCC): 5. Maximum A 230,526 8. Maximum % to 200 characters) residual oil, natu	3. SCC Unitannual Rate: 6 Ash: : This unit is cu	s: Thousand gallons burned 6. Estimated Annual Activity Factor: 9. Million Btu per SCC Unit: 152 urrently permitted to burn a					

Emissions	Unit Information	Section	4	Ωf	4	
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Segment Description and Rate: Segment3_ of7								
1. Segment Description (Process/Fuel Type) (limit to 500 characters): Unit 4 boiler burning No. 2 fuel oil								
	,							
Source Classification Code (SCC): 3. SCC Units: Thousand gallons burned 1-01-005-01								
4. Maximum Hourly Rate:	5. Maximum A	Innual Rate:	6. Estimated Annual Activity					
29.41	257,647		Factor:					
7. Maximum % Sulfur: 0.5	8. Maximum %	6 Ash:	9. Million Btu per SCC Unit: 136					
10. Segment Comment (limit to	•		· ·					
variable combination of No. 6 specification used oil from FP		ral gas, No. 2 ft	iel oil, propane, or on-					
specification used on from 11	e operations.							
Segment Description and Ra	ite: Segment	4_ of7_						
Segment Description (Prod Propane burned in Unit 4	cess/Fuel Type)	(limit to 500 ch	aracters):					
-								
2. Source Classification Code 1-01-006-01	e (SCC):	3. SCC Units	s: Million cubic feet burned					
4. Maximum Hourly Rate:	5. Maximum A	nnual Rate:	6. Estimated Annual Activity					
4.18	36,617		Factor:					
7. Maximum % Sulfur: 1	8. Maximum %	% Ash:	 Million Btu per SCC Unit: 1000 					
10. Segment Comment (limit								
variable combination of No. 6	•	ral gas, No. 2 fi	iel oil, propane, or on-					
specification used oil from FPL operations.								
-	•							

Emissions	Unit Information Section	_	1	οf	4	
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Segment Description and Ra	te: Segment	5 of7					
Segment Description (Process/Fuel Type) (limit to 500 characters): On-Specification used oil burned in Unit 4 boiler							
2	(800)	2 000 11-14-	7711				
2. Source Classification Code 1-01-013-02	: (SCC):	3. SCC Units:	Thousand gallons burned				
4. Maximum Hourly Rate: 29.41	Annual Rate:	6. Estimated Annual Activity Factor:					
7. Maximum % Sulfur: 2.5	8. Maximum %	Ash:	9. Million Btu per SCC Unit: 136				
10. Segment Comment (limit to 200 characters): This unit is currently permitted to burn a variable combination of No. 6 residual oil, natural gas, No. 2 fuel oil, propane, or onspecification used oil from FPL operations. Maximum Annual Rate is for Emission Units 001 through 004.							
Segment Description and Ra	te: Segment	6 of7					
1. Segment Description (Process/Fuel Type) (limit to 500 characters): Unit 4 boiler firing all possible combinations of natural gas, residual oil, on-specification used oil, #2 fuel oil, and propane							
Source Classification Code (SCC): 3. SCC Units: Million cubic feet and thousand gallons							
4. Maximum Hourly Rate:	5. Maximum A	Annual Rate:	6. Estimated Annual Activity Factor:				
7. Maximum % Sulfur: 2.5	8. Maximum %	Ash:	9. Million Btu per SCC Unit:				
10. Segment Comment (limit to 200 characters): The existing Title V permit allows Unit 4 to burn a mixture of the above fuels in a ration that will result in a max. SO2 emission rate of 2.75 lb/mmbtu.							

Emissions	Unit	Information	Section	4	οf	4	
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E. SEGMENT (PROCESS/FUEL) INFORMATION (All Emissions Units)

Segment Description and Rate: Segment7 of7						
1. Segment Description (Process/Fuel Type) (limit to 500 characters): Boiler chemical cleaning waste evaporated in Unit 4. This process may be undertaken while firing natural gas or residual fuel oil.						
wind firing natural gas or rosi	dan radi ozi					
2 Source Classification Cod	· (CCC).	2 SCC II-ita	Thousand gallons burned			
2. Source Classification Cod 1-01-013-01	e (SCC):	5. SCC Units:	Thousand gallons burned			
4. Maximum Hourly Rate: 3	5. Maximum 2 500	Annual Rate:	6. Estimated Annual Activity Factor:			
7. Maximum % Sulfur:	8. Maximum	% Ash:	9. Million Btu per SCC Unit:			
_			& 9 do not apply. This activity guidance and EPA waste rules			
Segment Description and Ra						
1. Segment Description (Prod	cess/Fuel Type)	(limit to 500 ch	aracters):			
2. Source Classification Cod	e (SCC):	3. SCC Units	:: ::			
4. Maximum Hourly Rate:	5. Maximum	Annual Rate:	6. Estimated Annual Activity Factor:			
7. Maximum % Sulfur:	8. Maximum	% Ash:	9. Million Btu per SCC Unit:			
10. Segment Comment (limit	to 200 characters):				

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F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	011	NA NA	EL EL
PM_{10}	011	NA	EL
	·		
_			
	-		
			·

Emissions Unit Information Section4 Pollutant Detail Information Page1	
	FANT DETAIL INFORMATION missions Units -
	truction Review Pollutants Only)
Potential/Fugitive Emissions	
Pollutant Emitted: PM - Total	2. Total Percent Efficiency of Control:
3. Potential Emissions: 400 lb/hour 679.8 tons/year	4. Synthetically Limited? [N]
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3	totons/year
6. Emission Factor: 0.1 lb/mmbtu Reference: FPL, 2003	7. Emissions Method Code: 0
8. Calculation of Emissions (limit to 600 characters) 0. 0.1 lb/mmbtu * 4000 mmbtu/hr = 400 lb/hr 0.03 lb/mmbtu * 4000 mmbtu/hr = 120 lb/hr 0.0388 lb/mmbtu * 4000 mmbtu/hr = 155.2 lb (155.2 lb/hr * 8760 hr/ yr) /2000 lb/ton = 679	r. (sootblowing) (steady-state) /hr. average
9. Pollutant Potential/Fugitive Emissions Commuter emission limit for 3 hrs at 0.1 lb/mmbtu a equivalent to an average of 0.0388 lb/mmbtu.	ment (limit to 200 characters): The particulate
Allowable Emissions Allowable Emissions	
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions: May 31, 2007
3. Requested Allowable Emissions and Units: 0.03 lb/mmbtu	4. Equivalent Allowable Emissions: 120 lb/hour 525.6 tons/year

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Based on its negotiations with the Department, applicant agrees to reduce steady-state PM emissions of its fossil fueled steam boilers in Broward County to 0.03 lb/mmbtu. Equivalent

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DEP Rule 62-296.405(1)(e)2.

5. Method of Compliance (limit to 60 characters):

allowable emissions are given for liquid fuel firing.

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Emissions Unit Information Section	n4 of4	
Pollutant Detail Information Page	2_ of2	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

Pollutant Detail Information

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
3. Potential Emissions:	4. Synthetically
lb/hour tons/year	Limited? []
5. Range of Estimated Fugitive Emissions:	•
[] 1 [] 2 [] 3	to tons/year
6. Emission Factor:	7. Emissions
Reference:	Method Code:
8. Calculation of Emissions (limit to 600 charac	cters):
	•
·	
9. Pollutant Potential/Fugitive Emissions Com	ment (limit to 200 characters):
	,
·	
Allowable Emissions Allowable Emissions	_2 of2
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable
OTHER	Emissions: May 31, 2007
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
0.1 lb/mmbtu	400 lb/hour 219 tons/year
5. Method of Compliance (limit to 60 character	rs):
DEP Rule 62-296.405(1)(e)2.	•
6. Allowable Emissions Comment (Desc. of Op	perating Method) (limit to 200 characters):
Based on its negotiations with the Department, a	
fossil fueled steam boilers in Broward County	
liquid fuel firing and sootblowing.	-

Emissions	Unit I	nformation	Section	4	of	4	
	OHILL A		Decuon	-	VI.	-	

H. VISIBLE EMISSIONS INFORMATION (Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emission	ions Limitation1 of3				
1. Visible Emissions Subtype: VE20	Basis for Allowable Opacity: [] Rule [X] Other				
3. Requested Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour					
4. Method of Compliance: EPA Method 9					
5. Visible Emissions Comment (limit to 200 c Department, applicant agrees to reduce the 6-m fueled steam boilers in Broward County to 20% Compliance testing is performed annually using	inute average visible emissions of its fossil b. This limit becomes effective May 31, 2007.				
Visible Emissions Limitation: Visible Emissions	ions Limitation2 of3				
1. Visible Emissions Subtype: VE40	Basis for Allowable Opacity: [] Rule				
Requested Allowable Opacity: Normal Conditions: 40 % Ex Maximum Period of Excess Opacity Allower	ceptional Conditions: 100 % ed: 24 min/hour				
4. Method of Compliance: EPA Method 9					
5. Visible Emissions Comment (limit to 200 c Department, applicant agrees to reduce visible of Broward County, and limits sootblowing & load hrs, with 4, six-minute periods of up to 100% of limit becomes effective May 31, 2007.	emissions of its fossil fueled steam boilers in d changing to 40% opacity for up to 3hrs/24				

Emissions	Unit Info	rmation	Section	4	οf	4	
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H. VISIBLE EMISSIONS INFORMATION (Only Regulated Emissions Units Subject to a VE Limitation)

<u>Visible Emissions Limitation:</u> Visible Emissi	ions Limitation3 of3			
1. Visible Emissions Subtype: VE100	2. Basis for Allowable Opacity:			
	[X] Rule [] Other			
3. Requested Allowable Opacity:				
	ceptional Conditions: 100 %			
Maximum Period of Excess Opacity Allowe	ed: 60 min/hour			
4. Method of Compliance: EPA Method 9				
5. Visible Emissions Comment (limit to 200 c F.A.C. allow up to 100% opacity, for an unlimi 2hrs/24hrs for malfunctions.				
I. CONTINUOUS MONITOR INFORMATION (Only Regulated Emissions Units Subject to Continuous Monitoring) Continuous Monitoring System: Continuous Monitor1 of1_				
1. Parameter Code: VE	2. Pollutant(s): Opacity			
3. CMS Requirement:	[X] Rule [] Other			
4. Monitor Information:				
Manufacturer: Phoenix Instruments, Inc.				
Model Number: OPAC 20/20	Serial Number: OPAC - 1082			
5. Installation Date: 12/19/00	6. Performance Specification Test Date: 01/12/00			
7. Continuous Monitor Comment (limit to 200	characters): Required by 40 CFR 75.			

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Emissions	Unit Information	Section	4	of	4	
	CHIC INIUI III WILLIUM	Section	•	O.		

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION (Regulated Emissions Units Only)

Supplemental Requirements

1.	Process Flow Diagram	
	[] Attached, Document ID:	[X] Not Applicable [] Waiver Requested
2.	Fuel Analysis or Specification	
	[] Attached, Document ID:	[X] Not Applicable [] Waiver Requested
3.	Detailed Description of Control Equipm	nent
	[X] Attached, Document ID: Part II	[] Not Applicable [] Waiver Requested
4.	Description of Stack Sampling Facilitie	es
	[] Attached, Document ID:	[X] Not Applicable [] Waiver Requested
5.	Compliance Test Report	
	[] Attached, Document ID:	
	[] Previously submitted, Date:	
	[X] Not Applicable	
6.	Procedures for Startup and Shutdown	
	[] Attached, Document ID:	[X] Not Applicable [] Waiver Requested
7.	Operation and Maintenance Plan	
		_ [X] Not Applicable [] Waiver Requested
8.	Supplemental Information for Construc	tion Permit Application
	[X] Attached, Document ID: Part II	
9.	Other Information Required by Rule or	Statute
	[] Attached, Document ID:	
10	. Supplemental Requirements Comment:	
		,
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Emissions	Unit Information Section	4	οf	4	

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation [] Attached, Document ID: [X] Not Applicable
12. Alternative Modes of Operation (Emissions Trading)
[] Attached, Document ID: [X] Not Applicable
13. Identification of Additional Applicable Requirements
[] Attached, Document ID: [X] Not Applicable
14. Compliance Assurance Monitoring Plan
[] Attached, Document ID: [X] Not Applicable
15. Acid Rain Part Application (Hard-copy Required)
[] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID:
[] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: N/A
[] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:N/A/
[] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID:N/A
[] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID:N/A
[] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID:N/A
[X] Not Applicable

PART II

Port Everglades Plant (PPE) Electrostatic Precipitator Project

FPL

Introduction and Background

The Florida Department of Environmental Protection (the "Department"), local environmental authorities and interested citizen groups have been expressing increased concern to FPL over the levels of particulate emissions from the Port Everglades Plant, as well as the need to ensure the Plant's continued compliance with the National Ambient Air Quality Standards and Hazardous Air Pollutant MACT requirements. These concerns have been the subject of negotiations between the Department and FPL over the appropriate air emission controls to be incorporated into FPL's Title V permits for those plants. As a result of the negotiations, the Department and FPL have agreed on new Title V permit conditions requiring lower limits of particulate emissions at the Port Everglades Plant (PPE) equivalent to New Source Performance Standards. In order to meet the lower particulate limits, FPL will install ESPs (or other equally effective particulate matter control technology) and steam coils on its four fossil-fueled steam boilers at Port Everglades.

The installation of ESPs on the first of the 4 Port Everglades steam boiler units is anticipated to begin in conjunction with the Spring outage of 2005 or sooner absent any unexpected delays in engineering, procurement, or other factors. The remaining units' ESP installations will be completed within the next two years, with the last ESP installed during the Spring outage of 2007. Following the installation of each ESP, a commissioning and optimization period of 180 days is anticipated following each unit's return to service.

The currently installed mechanical dust collectors will be removed from each unit, and steam coils will be added as part of each unit's ESP addition.

The proposed emission limits for particulate matter are 0.03 lb/MMBtu when operating in steady-state and 0.1 lb/MMBtu for sootblowing and load change. The proposed emission limits are similar in duration to those currently applicable for these units in Rule 62-296.405 (1) (b) and Rule 62-210.700 (3) F.A.C. for steady-state and sootblowing/load changing (i.e., 3 hours in 24 hours), respectively. The compliance determination would be the same as-that currently-applicable for the units (Rule 62-296.405(1)(e)2. The proposed emission limits are about a 70 percent reduction from current-emission limits. The reduction in potential particulate emissions from the installation-of-ESPs is about 4,800 tons per year.

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The Port Everglades units are anticipated to remain as cycling and load-following units after the installation of the ESPs. Therefore, it is expected that there will be periods coincident with unit start-up and shutdown activities when the ESPs may be marginally effective until reaching the appropriate operating conditions, i.e. temperatures, flows, etc. FPL will strive to minimize the impact of start up/shutdown activities on ambient air quality by using best operating practices during those periods.

Electrostatic Precipitators

Electrostatic precipitators (ESPs) are most commonly used for controlling fuel oil-fired particulate. ESPs are typically placed between the Air Pre-heater and the Stack (Fig.1). The functions of an ESP are to charge electrically the ash particles in the flue gas and provide the means for their collection and proper removal. The unit is comprised of a series of parallel vertical plates (called collecting plates) through which the flue gas passes. Centered between the plates are charging electrodes which provide the electric field (Fig.2).

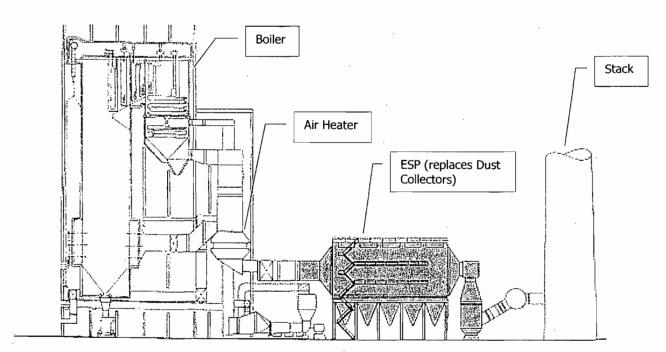


FIGURE 1 - TYPICAL ESP CONFIGURATION

The collecting plates are typically electrically grounded and configured as the positive electrode components. The discharge electrodes in the flue gas stream are connected to high voltage power source, typically 55-75 kV DC, with negative polarity. An electric field is established between the discharge electrodes and the collecting surface. As flue gas passes through the electric field, the particulate takes on a negative charge which, depending on the particle size, is accomplished by field charging or diffusion.

The negatively charged particles are attracted toward the grounded collection plates and migrate across the gas flow. The particles form an ash layer as they accumulate on the collection plates. The ash layer is then periodically removed. The most common removal method is rapping, which consists of suddenly striking the collection surface. This rapping force dislodges the ash. Because particulate tends to agglomerate, the ash layer is removed in sheets. This sheeting is important to prevent re-entrainment of individual particles into the flue gas stream. The dislodged particulate falls from the collection surface into a hopper, where is continuously removed and disposed.

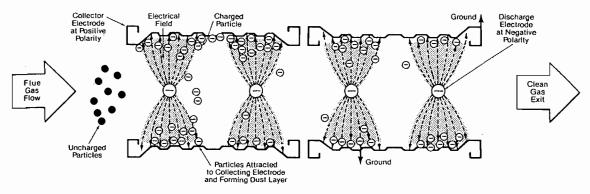
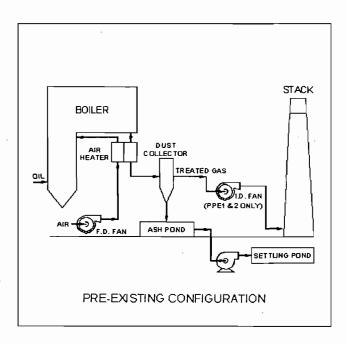


FIGURE 2 - CHARGING & COLLECTION OF PARTICLES WITHIN AN ESP

Project Scope

The project includes the engineering, design, modeling, fabrication, assembly, erection, and optimization of electrostatic precipitators in all four Port Everglades Units (i.e., PPE-1&2 each at 200MW & PPE-3&4 at 400MW). ESPs will replace the existing mechanical dust collectors, which will either be removed or abandoned in place. Figure 3 shows the pre and post-ESP upgrades.



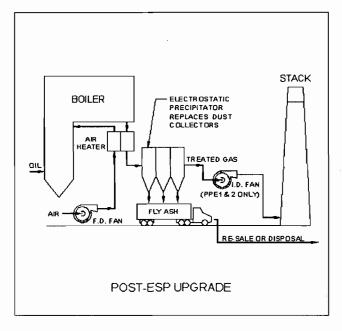


FIGURE 3 - PRE & POST ESP UPGRADE AT PPE

Due to the high collection efficiency of the ESPs, a significant increase on fly ash by-product is expected. Preliminary estimates indicate the need to dispose between 900-1,100 tons/year of ash, which equates to approximately 1 dump-truck per week. Commercial use of this fly ash will be investigated for metal (mainly V & Ni) recovery and concrete aggregate application.

PPE ESPs will require larger footprint than the existing dust collectors. Consequently, special considerations will be made to optimize their design and installation, and minimize the impact on the availability of the station. As an example, ESPs may be built on top of the existing dust collectors/ductwork to the stack (Fig. 4&5) in order to reduce outage time requirement and avoid potential layout interference between the units (particularly between PPE-2 & PPE-3).

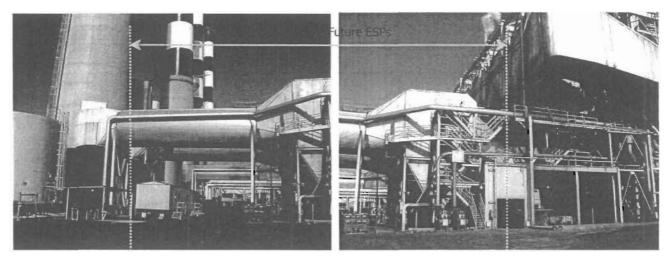


FIGURE 4 - UNIT 3&4 EXISTING BACKEND ARRANGEMENT

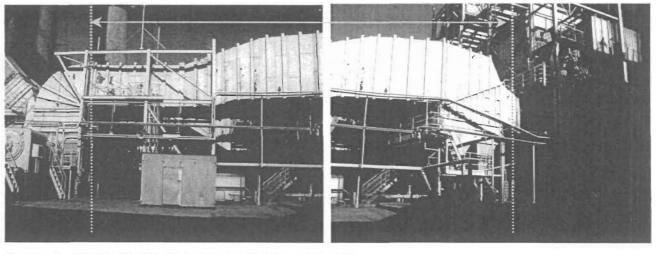


FIGURE 5 - UNIT 1&2 EXISTING BACKEND ARRANGEMENT

The handling of flyash will be controlled using techniques to minimize particulate emissions. This may included the use of bagfilters for flyash handling and enclosed trucks. These techniques will be determined during design engineering.

Project Schedule

Execution of the project would be completed between approximately 21 to 40 months (first to last units) from the date of contract award, in accordance to the following preliminary schedule:

- a. Proposal Evaluation Completion 01/01/04
- b. Contract Award 02/01/04
- c. Begin On-site Construction 09/01/04 (First Unit)
- d. Complete On-site Construction 04/01/05 (First Unit)
- e. Achieve First Unit Emission Compliance 10/31/05
- f. Achieve Second Unit Emission Compliance 05/31/06
- g. Achieve Third Unit Emission Compliance 05/3.1/07--
- h. Achieve Fourth Unit Emission Compliance 10/31/07 (Last Unit)

For reference, the overall preliminary plan is shown below. This master schedule is based on the current (as of 1Q'03) outage plan for the PPE units.

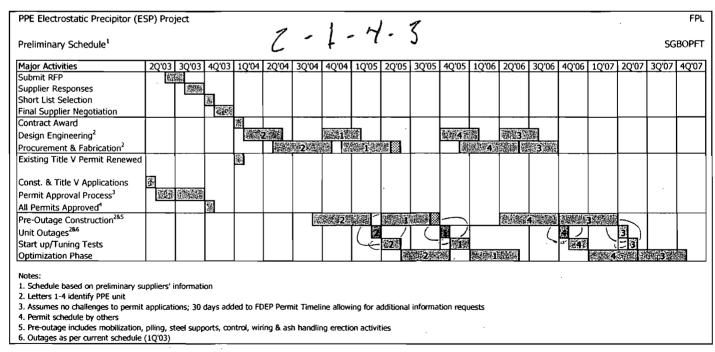


FIGURE 6 – ESP UPGRADE SCHEDULE FOR PPE STATION

Regulatory Applicability

The addition of ESPs will reduce the emissions of particulate matter and not involve any other changes related to emissions of other pollutants or operational parameters (e.g., stack flow and temperature). The project is a "pollution control project" as defined in 40 CFR Part 52.21 (b)(32) and meets the requirements cited in Rule 62-212-400(2)(a)2. F.A.C. and 40 CFR 52.21 (b) (2)(iii)(h). As such, the project is not a modification under the Department regulations.

References

- Air & Waste management Association, (2000). Air Pollution Engineering Manual. Edited by Wayne T. Davis. John Wiley & Sons, Inc. New York.
- U.S. Environmental Protection Agency, (1998). Stationary Source Control Techniques Document for Fine Particulate Matter. EPA No. 68-D-98-026, October 1998. Research Triangle Park, North Carolina.
- U.S. Environmental Protection Agency, (1998). Compilation of Air Pollutant emission Factors. Volume I: Stationary Point and Area Sources. Section 1.3, Fuel Oil Combustion. AP-42