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**BUREAU OF AIR REGULATION** 

Thursday, December 19, 2002
Trina Vielhauer, Chief
Bureau of Air Regulation
Division of Air Resources Management Department of
Environmental Protection
2600 Blair Stone Road, MS#5505
Tallahassee, FL 32399-2400

Dear Ms. Vielhauer,

The attached application from Florida Power & Light Company is to request a modification to the Air Construction Permit (0850001-008-AC) for the Martin Plant. The basis for the change to the existing permit is only for the condition limiting excess emissions of the simple cycle peaking gas turbines. The requested change reflects the Martin Plant's experience following several months of actual operation of these units and will assist them in operating them as originally planned.

An application for modification to the existing Title V Permit has been previously submitted and FPL is requesting that this change be included in the Draft of that permit. The proposed conditions limiting excess emissions for the simple cycle combustion turbines in the current Draft will be supplemented with the requested change for the Air Construction Permit. Florida Power & Light Company is also requesting that the Department issue a combined public notice for the Air Construction Permit modification and the Title V Permit modification.

Should you have any questions, or need any additional information, please contact me at your earliest convenience.

Sincerely,

Jenn C. Hampp

Sr. Regulatory Specialist

Florida Power & Light Company

JES-JB

700 Universe Blvd. Juno Beach, FL 33408

Email: jhampp@email.fpl.com

cc: Mr. Jeff Koerner, FDEP

Mr. Tom Cascio, FDEP



# Department of Environmental Protection Division of Air Resources Management AIR PERMIT - TITLE V SOURCE AIR PERMIT - TITLE V SOURCE AIR REGULATION

APPLICATION FOR AIR PERMIT - TITLE V SOURCE

### **Identification of Facility**

1.	Facility Owner/Company Name:	Fl	orida Powei	r & Light Company
2.	Site Name:	M	artin Plant	
3.	Facility Identification Number:	08	5001	[ ] Unknown
4.	Facility Location: 7 miles North Street Address or Other Locator:	of Indiant	own on Stat	e Road 710
	City:Indiantown	County:M	lartin	Zip Code:34956-0176
5.	Relocatable Facility?		6. Existin	g Permitted Facility?
	[ ] Yes [X] No		[X]Y	es [ ] No
2.	Application Contact Mailing Add Organization/Firm: Florida Pow	dress: ver & Ligh		ental Specialist  conmental Services Dept.
	Street Address: 700 Universe B		. 171	7' 0 1 22400
	City: Juno Beach		ate: <b>FL</b>	Zip Code: 33408
3.	Application Contact Telephone	Numbers:		
	Telephone: (561)- 691-2894		Fax: (5	561)- 691-7049
<u>A</u>	oplication Processing Informatio	n (DEP U	se)	
1.	Date of Receipt of Application:		12-211	1-2002
2	Permit Number:			14 - A.I. AA

1

0850001-011-AC

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

3. PSD Number (if applicable):

4. Siting Number (if applicable):

# **Purpose of Application**

# **Air Operation Permit Application**

Th	is .	Application for Air Permit is submitted to obtain: (Check one)
[	]	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: 0850001-008-AC
		Operation permit number to be revised: <u>0850001-007-AV</u>
[ X	[ ]	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: 0850001-007-AV
[	]	Title V air operation permit revision for reasons other than construction or modification of an 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:
Ai	r (	Construction Permit Application
Th	is	Application for Air Permit is submitted to obtain: (Check one)
[ >	[]	Air construction permit to construct or modify one or more emissions units.
[	]	Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
г	1	Air construction permit for one or more existing but unpermitted emissions units

2

### Owner/Authorized Representative or Responsible Official

1.	Name and	Title of Owner	Authorized	Representat	ive or Respons	sible Official:
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Carine Bullock - Production Manager

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

Organization/Firm: Florida Power & Light Company Martin Plant

Street Address: P.O. Box 176

City: Indiantown

State: FL

Zip Code: 34956-0176

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

Telephone: (772) 597-7110

Fax: (772) 597-7416

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 [ ], 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

12/18/02

### **Professional Engineer Certification**

1. Professional Engineer Name: Edward Preast

Registration Number:

033225

2. Professional Engineer Mailing Address:

Organization/Firm: Florida Power & Light Co. / Environmental Services Dept.

Street Address:

700 Universe Blvd.

City: Juno Beach

State: FL

Zip Code: 33408

3. Professional Engineer Telephone Numbers:

Telephone: (561) 691 - 7054

Fax: (561) 691 - 7049

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

Effective: 2/11/99

3

<sup>\*</sup> Attach letter of authorization if not currently on file.

### 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 [ ], 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 [X], 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.

Edward Preast	12/17/02
Signature	Date
(seal) = 1	

<sup>\*</sup> Attach any exception to certification statement.

# **Scope of Application**

Emissions		Permit	Processing	
Unit ID	Description of Emissions Unit	Туре	Fee	
011	Simple Cycle Unit No. 8A	AO1B	N/A	
012	Simple Cycle Unit No. 8B	AO1B	N/A	
013	Natural Gas Fuel Heaters	AO1C	N/A	
			-	

# **Application Processing Fee**

Check one: [ ] Attached - Amount: \$	[X]	Not Applicable
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DEP Form No. 62-210.900(1) - Form

### Construction/Modification Information

1. Description of Proposed Project or Alterations:

Two new 170 MW nominal General Electric Model PG7241 (FA) simple cycle combustion turbines are being constructed at the Florida Power & Light Martin Plant facility. The combustion turbines will operate on pipeline natural gas as the primary fuel and very low sulfur distillate oil as a backup fuel.

- 2. Projected or Actual Date of Commencement of Construction: 09/01/00
- 3. Projected Date of Completion of Construction:

### **Application Comment**

### **Excess Emissions Allowed:**

- 18. Excess Emissions Allowed: For each combustion turbine, excess NOx and visible emissions during startup, shutdown, and documented malfunction shall be allowed, providing:
  - (a) Operators employ best operational practices to minimize the amount and duration of excess emissions.
  - (b) Operation below 50% of base load shall not exceed 120 minutes during any calendar day.
  - (c) During startup and shutdown, visible emissions excluding water vapor shall not exceed 20% opacity for up to ten, 6-minute observation periods during any calendar day. Data for each observation period shall be exclusive for the ten periods.
  - (d) Excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in any 24-hour period except for excess emissions from oil-to-gas fuel switching which shall not exceed 1 hour in any 24-hour period.
  - (e) For excess NOx emissions due to malfunction, the permittee shall notify the Compliance Authority within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident.
  - (f) If the permittee provides at least 5 days advance notice prior to tuning in accordance with the manufacturer's recommendations, up to three 1-hour monitoring averages may be excluded from the continuous NOx compliance demonstration for each gas turbine due to excess NOx emissions resulting from tuning. {Permitting Note: It is expected that no more than two tuning sessions would occur each year.

6

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

### II. FACILITY INFORMATION

### A. GENERAL FACILITY INFORMATION

### **Facility Location and Type**

1.	Facility UTM Coor	dinates:		
	Zone: 17	East (km): 543.1 North		th (km): 2992.9
2.	. Facility Latitude/Longitude:			
	Latitude (DD/MM/	SS): 27° 03' 13" Longit	tude (DD/MM/SS): 80°	33' 46"
3.	Governmental	4. Facility Status	5. Facility Major	6. Facility SIC(s):
	Facility Code:	Code:	Group SIC Code:	
	O	A	49	4911

7. Facility Comment (limit to 500 characters):

Martin Power Plant consists of four electrical generating units. Units 1 and 2 are 800 MW fossil fuel steam boilers firing low sulfur residual oil and natural gas. Combined Cycle Units 3 and 4 use four GE Model 7F combustion turbines (3A, 3B, 4A, 4B) producing 170 MW each and exhausted into heat recovery steam generators. The steam turbine/generators for each HRSG pair provides 160 MW each. The new emission units are 2 simple cycle combustion turbines with associated gas fuel heaters.

### **Facility Contact**

1. Name and Title of Facility Conta	ct: Willie Welch, Envir	ronmental Specialist
2. Facility Contact Mailing Address	 3:	
Organization/Firm: Florida Pow	er & Light Martin Pow	er Plant
Street Address: P.O. Box 176		
City: Indiantown	State: FL	Zip Code: 34956-0176
3. Facility Contact Telephone Num	bers:	
Telephone: (561 ) 597 - 72	11 Fax: (561 )	597 - 7416

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

# **Facility Regulatory Classifications**

# Check all that apply:

	[ ] Unknown		
2. [X] Major Source of Pollutants Other than	Hazardous Air Pollutants (HAPs)?		
3. [ ] Synthetic Minor Source of Pollutants Other than HAPs?			
4. [ ] Major Source of Hazardous Air Pollutants (HAPs)?			
5. [ ] Synthetic Minor Source of HAPs?			
6. [ ] One or More Emissions Units Subject	to NSPS?		
7. [ ] One or More Emission Units Subject	to NESHAP?		
8. [ ] Title V Source by EPA Designation?			
9. Facility Regulatory Classifications Commer	at (limit to 200 characters):		
List of Applicable Regulations	N - 8 - 8 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		
All applicable FAC regulations are covered under existing Title V permit and there are no additional requirements.			
All applicable FAC regulations are covered under existing Title V permit and there are			
All applicable FAC regulations are covered under existing Title V permit and there are			

**B. FACILITY POLLUTANTS** 

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

# **List of Pollutants Emitted**

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap		4. Basis for Emissions	5. Pollutant Comment
Limited	Ciassii.	lb/hour	tons/year	Cap	Comment
				-	
				-	
		_			

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

### C. FACILITY SUPPLEMENTAL INFORMATION

# **Supplemental Requirements**

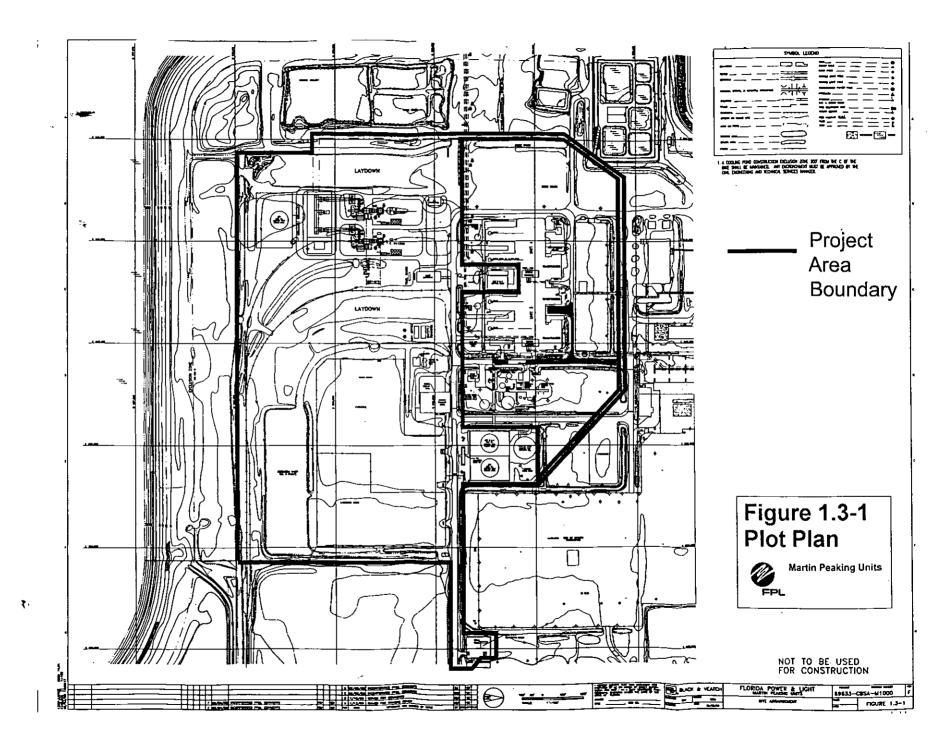
1.	Area Map Showing Facility Location: [X] Attached, Document ID: Figure 1.2-1[] Not Applicable[] Waiver Requested
2.	Facility Plot Plan: [X] Attached, Document ID: Figure 1.3-1 & Figure 1.3-2 [] Not Applicable [] Waiver Requested
3.	Process Flow Diagram(s): [X] Attached, Document ID: Figure 2-1[] Not Applicable [] Waiver Requested
4.	Precautions to Prevent Emissions of Unconfined Particulate Matter: [X] Attached, Document ID: PMR8 1.txt [ ] Not Applicable [ ] Waiver Requested
5.	Fugitive Emissions Identification: [X] Attached, Document ID: PMR8 2.txt [ ] Not Applicable [ ] Waiver Requested
6.	Supplemental Information for Construction Permit Application:  [ ] Attached, Document ID:[ ] Not Applicable
7.	Supplemental Requirements Comment:

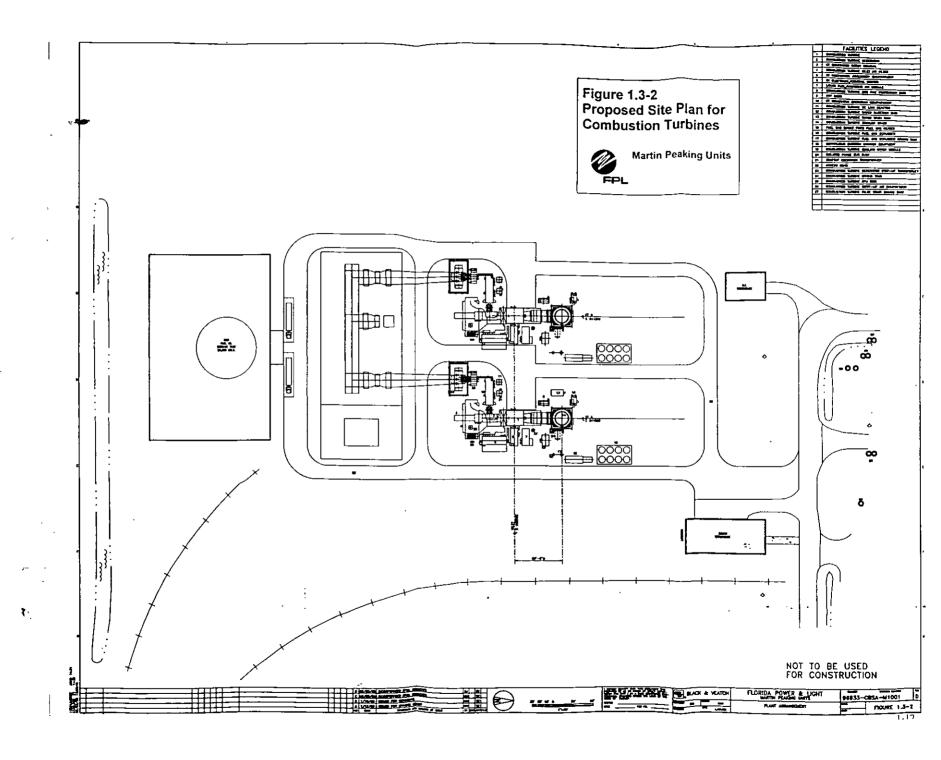
DEP Form No. 62-210.900(1) - Form

# Additional Supplemental Requirements for Title V Air Operation Permit Applications

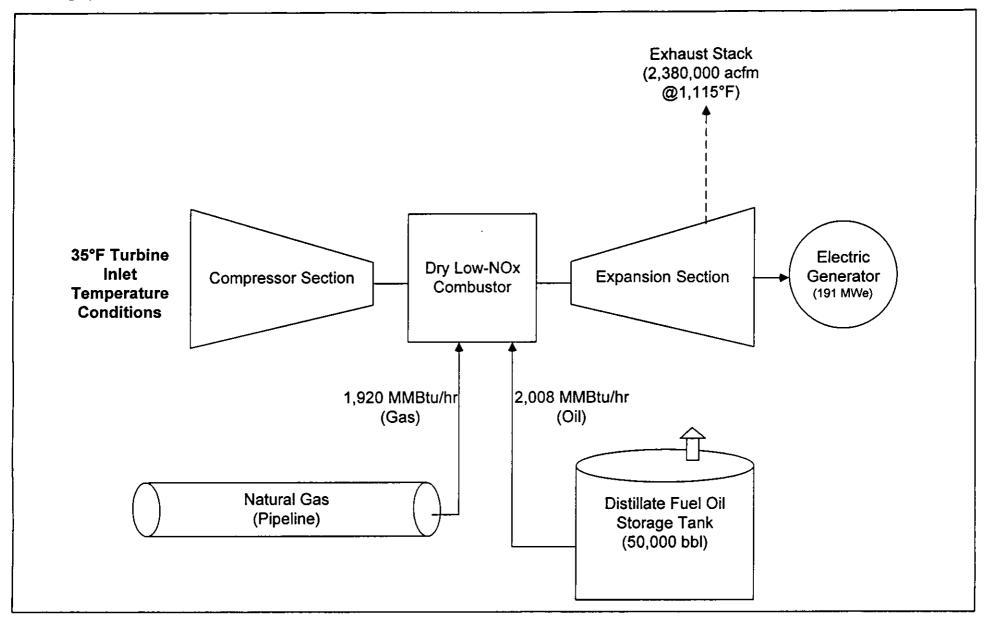
8. List of Proposed Insignificant Activities:
[ ] Attached, Document ID: [X] Not Applicable
9. List of Equipment/Activities Regulated under Title VI:
[ ] Attached, Document ID:
[ ] Equipment/Activities On site but Not Required to be Individually Listed
[X] Not Applicable
10. Alternative Methods of Operation:
[ ] Attached, Document ID: [X] Not Applicable
11. Alternative Modes of Operation (Emissions Trading):
[ ] Attached, Document ID: [X] Not Applicable
[ ] Attached, Document iib [ A ] 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:)
[X] Not Applicable
14. Compliance Report and Plan:
[X] Attached, Document ID: PMR8 3.txt
15 Compliance Certification (Hard conv. Paguired):
15. Compliance Certification (Hard-copy Required):  [X] Attached, Document ID: <u>PMR8 4.txt</u> [ ] Not Applicable
[A] Attached, Document ib. I Mito 4.1xt [ ] Not Applicable

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





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Martin Peaking Units

Figure 2-1
Simplified Flow Diagram of GE Frame 7FA
Martin Peaking Units Project



### **Attachment PMR8 1.txt**

### Precautions to Prevent Emissions of Unconfined Particulate Matter

The facility has negligable amounts of unconfined particulate matter as a result of operation of the facility. Potential examples of particulate matter include:

- Fugitive dust from unpaved roads
- Sandblasting abrasive material from plant maintenance activities
- Fugitive particulates from the use of bagged chemical products (soda ash, di-, tri- and monosodium phosphate, and other chemicals as needed)

Several precautions were taken to prevent emissions of particulate matter at the facility including:

- Paving of roads, parking areas, and equipment yards
- Landscaping and planting vegetation

Operational measures are undertaken at the facility which also minimize particulate emissions, in accordance with 17-296-310 F.A.C.:

- Use of thick poly flaps over the doorways to prevent any sandblasting material from leaving the sandblast facility. The facility also constructs temporary sandblasting enclosures when necessary, in order to perform sandblasting on fixed plant equipment
- Maintenance of paved roads as needed
- Regular mowing of grass and care of vegetation
- Limiting access to plant property by unnecessary vehicles
- Bagged chemical products are stored in weather tight buildings until they are used. Spills of any powdered chemical products are cleaned up as soon as practicable

Vehicles are restricted to slow speeds on the plant site

### **Attachment PMR8 2.txt**

# **Fugitive Emission Identification**

### Criteria and Precursor Air Pollutants

Fugitive particulate emissions are addressed in Attachement PMR8\_1.txt. FPL is not aware of fugitive particulate emissions of Sulfure Dioxide, Nitrogen Oxides or Carbon Monoxide that would exceed the reporting thresholds defined in the permit application instructions.

# Fugative HAP's Emissions

FPL is not aware of fugitive emissions of HAP pollutants that would exceed the reporting thresholds defined in the permit application instructions.

### **Attachment PMR8 3.txt**

# Martin Plant Compliance Report and Plan

This facility and emissions units identified in this application are in compliance with the Applicable Requirements identified in Sections II. B. and III. D. of the application form and attachments referenced in Section III. L. 12 (if included). Compliance is certified as of the date of this application is submitted to the Florida Department of Environmental Protection as required in Rule 62-213.420(1)(a) F.A.C.

### **Attachment PMR8 4.txt**

# **Compliance Statement**

I, the undersigned, am the responsible official as defined in Chapter 62-213, F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on the information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete.

Signature, Responsible Official

Proposed Schedule for submittal of periodic compliance statements to the Department:

FPL will submit an annual compliance statement to the Department's Southeast District Office concurrently with the submittal of the Annual Operating Report for this facility.