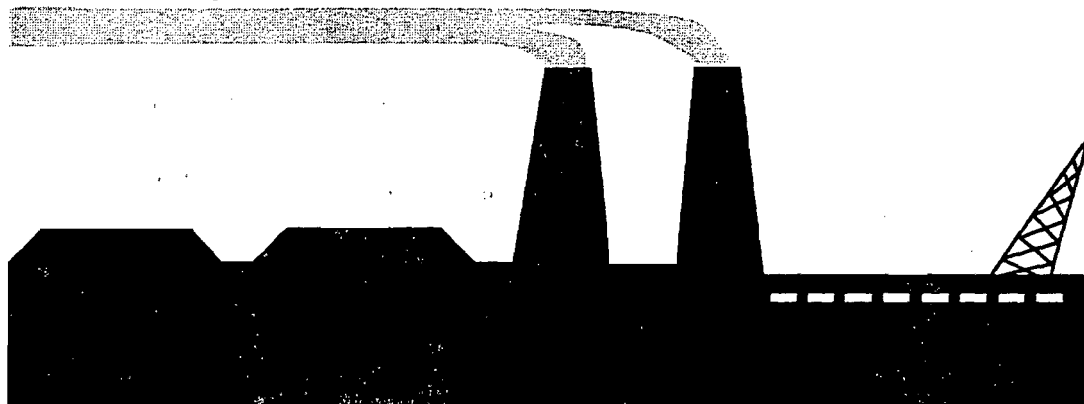


Title V Permit Application



Turkey Point Nuclear Plant



Florida Department of
Environmental Protection

Memorandum

TO: Isidore Goldman, SED

FROM: Bruce Mitchell *BZ*

DATE: April 8, 1997

SUBJECT: Completeness Review of an Application Package for a Title V Operation Permit
Florida Power & Light Co., Turkey Point : 0250003-~~001~~-AV
002

Enclosed is an application package for a Title V operation permit that is being processed in Tallahassee. Please review the package for completeness and respond in writing by May 9, 1997, if you have any comments. Otherwise, no response is required.

It is very important to verify the compliance statement regarding the facility, since we do not have a readily effective means of determining compliance at the time the application was submitted. Please advise if you know of any emissions unit(s) that were not in compliance at that time and provide supporting information. You should have a copy on file of the original initial Title V permit application submittal. Also, please do not write on these documents.

If there are any questions, please call the project engineer, Steve Welsh, at 904/488-1344 or SC: 278-1344.

RBM/bjb

Enclosure

cc: Joe Kahn

This application is being submitted to obtain a federally-enforceable construction and operation permit for the Turkey Point Nuclear plant. The Turkey Point nuclear facility consists of two nuclear generating units with a combined capacity of 1,332 megawatts. The nuclear generating units, which are regulated by the Nuclear Regulatory Commission (NRC) are not included in this application.

The facility also contains several ancillary pieces of diesel-driven equipment (such as diesel generators and air compressors) and fuel oil storage tanks. This ancillary equipment, when considered in aggregate, has the potential to emit in excess of 100 tpy of NOx. The nuclear plants are co-located with the two Turkey Point fossil generating plants (which are major sources under Title 5). However, this application is being submitted separately from the fossil units' application, pursuant to the application instructions (page 6 of DEP Form 62-210.900(1) paragraph five): "For permits issued under Chapter 62-213, F.A.C., to sources that include emissions units subject to regulation by the Nuclear Regulatory Commission, the applicant may elect to submit multiple applications for a single Title V source and to have corresponding multiple permits issued by the Department".

The facility also contains an adjacent cooling canal system, with associated support equipment and office (Land Utilization department). Emissions from the Land Utilization equipment are primarily associated with heavy diesel equipment, such as trucks, backhoes, airboats, and the like, and are exempt from consideration in Title V permitting due to being mobile sources. Regulated emissions associated with the Land Utilization Department include fugitive dust (considered in Emission Unit section 4) and miscellaneous small diesel and gasoline-driven equipment, such as pumps and air compressors. These emissions are considered in Emission Unit 3.

This application is structured as follows: The "main plant emergency diesel generators" which supply backup power to the nuclear power plant auxiliary equipment, are addressed in Emission Unit 1 section of the application. Other diesel generators which supply backup power to certain other equipment at the facility are addressed in Emission Unit section 2 of the application. Emission Unit 3 contains information regarding miscellaneous diesel-driven small equipment at the facility. The facility's safety-related equipment, paint spray booth, sandblast enclosure, tanks, and miscellaneous fugitive emissions are considered in the Unregulated Emission Units section (Emission Unit section 4 of the application).

NOx is the pollutant that is emitted in the largest quantity from the internal combustion (diesel-driven) equipment. Facility-wide potential NOx emissions, reflective of the operating limits which FPL is proposing, are as follows:

Emission Unit 1 (4 Main plant emergency diesel generators) (1400 hours per year limit combined total)	78.44 tons per year
Emission Unit 2 (Other emergency diesel generators) (400 hours per year limit each)	6.0 tons per year
Emission Unit 3 (Miscellaneous plant equipment) (annual fuel usage limit of 160,520 gallons)	48.14 tons per year
Emission Unit 4 (Exempt Diesel Equipment)	2.16 tons per year
	Total: 137.74 tons per year

E. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications For Facility :/

1. Area Map Showing Facility Location: PTNFS-1.BMP (Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)
2. Facility Plot Plan: PTNFS-2.BMP (Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)
3. Process Flow Diagram(s): PTNFS-3.BMP (Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: PTNFS-4.txt (Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)
5. Fugitive Emissions Identification : PTNFS-5.txt (Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)
6. Supplemental Information for Construction Permit Application: Not Applicable (Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities: Not Applicable (Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)
8. List of Equipment/Activities Regulated under Title VI: PTNFS-8.txt (Enter the Attached Document ID, NA - Not Applicable, Onsite - Equipment/Activities Onsite but not Required to be Individually Listed, or Attach an Electronic Submission File)
9. Alternative Methods of Operation: Not Applicable (Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)
10. Alternative Modes of Operation (Emissions Trading): Not Applicable (Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)
11. Identification of Additional Applicable Requirements: Not Applicable (Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)

12. Compliance Assurance Monitoring Plan: Not Applicable

(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)

13. Risk Management Plan Verification: NA

(Enter the Attached Document ID, NA - Not Applicable, Plan Submit - Plan to be submitted to Implementing Agency by Required Date, or Attach an Electronic Submission File)

14. Compliance Report and Plan: NA

(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)

15. Compliance Statement (Hard-copy Required): PTNFS-14.txt

(Enter the Attached Document ID, NA - Not Applicable)

III. EMISSIONS UNIT INFORMATION

Information for Facility - ID : / Emission Unit # : 2

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Units? Check one:

- 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 a unregulated emissions unit.

2. Single Process, Group Processes, or Fugitive Only?

Enter The Number (1-3): 1

- [1] 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).
- [2] 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.
- [3] 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.

**B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)**

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Auxiliary Emergency Diesel Generators
2. Emissions Unit Identification Number: Unknown (No Corresponding ID or Unknown)
3. Emission Unit Status Code: (A or C) : A
4. Acid Rain Unit? (Y/N): N
5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters): This emission unit considers several pieces of equipment; the security system diesel generator, the sewage plant diesel generator, and three meteorological tower diesel generators. The initial startup dates, manufacturer and model numbers vary with each piece of equipment.

Emissions Unit Control Equipment

A. Control Equipment # :

1. Description (limit to 200 characters): None
2. Control Device or Method Code:

B. Control Equipment # :

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C. Control Equipment # :

1. Description (limit to 200 characters):
2. Control Device or Method Code:

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

Emission Point Description and Type

Information for Facility-ID 1 Emission Unit # : 2

1. Identification of Point on Plot Plan or Flow Diagram: PTN security system emergency diesel generator
2. Emission Point Type Code (1,2,3,4) : 3
3. Descriptions of Emissions Points Comprising this Emissions Unit : Sewage plant diesel gen., security system diesel gen., 3 meteorological tower diesel gen.
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:
5. Discharge Type Code (D, F, H, P, R, V, W) : v
6. Stack Height: 13 ft
7. Exit Diameter: 0.67 ft
8. Exit Temperature: 1006 °F
9. Actual Volumetric Flow Rate: 3686 acfm
10. Percent Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm
12. Nonstack Emission Point Height: ft
13. Emission Point UTM Coordinates: Zone: 17 East: 567282.32 North: 2813081.87
14. Emission Point Comment (limit to 200 characters):

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

Emission Point Description and Type

Information for Facility-ID 1 Emission Unit # :2

1. Identification of Point on Plot Plan or Flow Diagram: PTN sewage emergency diesel generator
2. Emission Point Type Code (1,2,3,4) : 1
3. Descriptions of Emissions Points Comprising this Emissions Unit : Sewage plant diesel gen., security system diesel gen., 3 meteorological tower diesel gen.
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:
5. Discharge Type Code (D, F, H, P, R, V, W) : H
6. Stack Height: 7.25 ft
7. Exit Diameter: 0.33 ft
8. Exit Temperature: 847 °F
9. Actual Volumetric Flow Rate: 1114 acfm
10. Percent Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm
12. Nonstack Emission Point Height: ft
13. Emission Point UTM Coordinates: Zone: 17 East: 567086.79 North: 2813080.89
14. Emission Point Comment (limit to 200 characters):

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

Emission Point Description and Type

Information for Facility-ID 1 Emission Unit # : 2

1. Identification of Point on Plot Plan or Flow Diagram: PTN meteorological tower diesel generators
2. Emission Point Type Code (1,2,3,4) : 3
3. Descriptions of Emissions Points Comprising this Emissions Unit : Sewage plant diesel gen., security system diesel gen., 3 meteorological tower diesel gen.
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:
5. Discharge Type Code (D, F, H, P, R, V, W) : H
6. Stack Height: 7.25 ft
7. Exit Diameter: 0.33 ft
8. Exit Temperature: 847 °F
9. Actual Volumetric Flow Rate: 1114 acfm
10. Percent Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm
12. Nonstack Emission Point Height: ft
13. Emission Point UTM Coordinates: Zone: East: North:
14. Emission Point Comment (limit to 200 characters): Stack height, exit diameter, temperature and flow rate are estimates.

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate:

Information for Facility_ID : / Emission Unit #: 2 Segment #: 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Diesel fuel fired in the meteorological tower emergency diesel generators (3)
2. Source Classification Code (SCC): 2-01-001-02
3. SCC Units: thousand gallons
4. Maximum Hourly Rate: 0.005
5. Maximum Annual Rate: 2
6. Estimated Annual Activity Factor:
7. Maximum Percent Sulfur: 0.5
8. Maximum Percent Ash: 0.01
9. Million Btu per SCC Unit: 136
10. Segment Comment (limit to 200 characters): Information provided above is based on 5 gallons per hour of fuel consumption for the 3 met. tower generators combined.

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

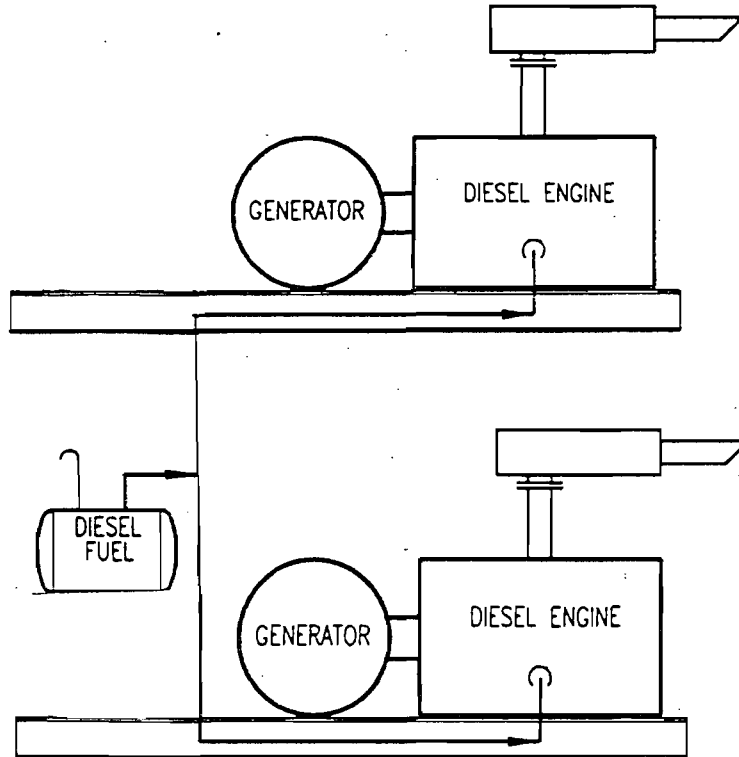
Information for Facility_ID: 1 Emission Unit #: 2 Pollutant #: 1

Pollutant Detail Information

1. Pollutant Emitted: Nitrogen Oxides
2. Total Percent Efficiency of Control: %
3. Potential Emissions: 29.99 lbs/hr 6 tons/yr
4. Synthetically Limited? (Yes/No): Y
5. Range of Estimated Fugitive/Other Emissions: (1, 2, 3): to tons/yr
6. Emission Factor: 4.41 Units lb/mmBtu Reference: AP42
7. Emissions Method Code: (0, 1, 2, 3, 4, 5): 3 <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
8. Calculation of Emissions (limit to 600 characters): 4.41 lb/mmBtu x 15 gph x 0.136 mmBtu/gal = 9.0 lb/hour 4.41 lb/mmBtu x 1 gph x 0.136 mmBtu/gal = 0.6 lb/hour 4.41 lb/mmBtu x 2 gph x 0.136 mmBtu/gal x 2 = 2.4 lb/hour 4.41 lb/mmBtu x 30 gph x 0.136 mmBtu/gal = 17.99 lb/hour 9 + 0.6 + 2.4 + 17.99 = 29.99 lb/hour 29.99 lb/hour x 400 hours/year = 11,516 lb / 2,000 lb/ton = 6.0 TPY
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): FPL is requesting a 400 hour-per-year limit on each of the diesel generators in this emission unit section, in lieu of annual emission testing, per DEP Rule 62-297.340(1)(c)2..


WALKDOWN INFORMATION	ORG	BY	DATE
	ENGINEERING ORGANIZATION		
AS-BUILT INFORMATION	ORG	BY	DATE

TECHNICAL ACCEPTANCE	ORG	BY	DATE



60 METER METEOROLOGICAL TOWER
DIESEL GENERATOR

BAR CODE

	SYSTEM YY	DISCIPLINE M	PLANT/UNIT TURKEY POINT NUCLEAR
	SCALE N/A	CAD FILE NAME JP000637	TITLE EMISSION UNIT FLOW DIAGRAM MISCELLANEOUS DIESELS ATTACHMENT NO. EU2D
	DRAWING SIZE A (8.5X11)	FPL ARCHIVE NAME JP000637	

0	8/22/95	ISSUED FOR TITLE V PERMIT	PWB	PWB	CSP	CSP	ETS
REV	DATE	REVISION DESCRIPTION	BY	CH	COR	APR	ORG

DRAWING NUMBER JETS-M0022-YY	SHEET 1 OF 1	REV. 0
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Appendix U-1, List of Unregulated Emissions Units and/or Activities.
Florida Power & Light **DRAFT Permit No.: 0250003-002-AV**
Turkey Point Nuclear Station

Unregulated Emissions Units and/or Activities. An emissions unit which emits no “emissions-limited pollutant” and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither ‘regulated emissions units’ nor ‘exempt emissions units’.

E.U. ID

<u>No.</u>	<u>Brief Description of Emissions Units and/or Activity</u>
-xxx	Gas decay tanks
-xxx	Fuel building exhaust
-xxx	Diesel oil storage tanks
-xxx	Fuel pool
-xxx	Lube oil vapor extractor system
-xxx	Atmospheric dumps
-xxx	Turbine lube oil tank
-xxx	Sulfuric Acid Tank
-xxx	Equipment
-xxx	Open material stockpiles
-xxx	Wastewater treatment plant gases
-xxx	Paint building vents
-xxx	Hazardous waste storage building vents
-xxx	Aerosol can puncturing
-xxx	Slime sucker pumps
-xxx	
-xxx	
-xxx	
-xxx	
-xxx	
-xxx	

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