Memorandum

Florida Department of Environmental Protection

TO: Joseph Kahn, Division of Air Resource Management

THROUGH: Trina Vielhauer, Bureau of Air Regulation

FROM: Jeff Koerner, New Source Review Section

DATE: May 27, 2010

SUBJECT: Final Air Permit No. PSD-FL-409
Project No. 0250003-013-AC
Florida Power & Light, Turkey Point Power Plant
Cooling Tower Project for Proposed Nuclear Units 6 and 7

The Florida Power & Light Company operates the existing Turkey Point Power Plant, which is located in Miami-Dade County at 9700 Southwest 344th Street in Homestead, Florida. To support the proposed new nuclear Units 6 and 7, this project authorizes construction of the following: six 12-cell mechanical draft cooling towers; two 2-cell service water cooling towers; four nominal 4000 kilowatt (kW) standby diesel generators; four nominal 35 kW ancillary diesel generators; two nominal 330 horsepower (hp) fire pump engines; diesel tanks; and miscellaneous general purpose diesel engines powering various support equipment. Based on the annual potential emissions, the project is subject to the preconstruction review requirements of Rule 62-212.400, Florida Administrative Code (F.A.C.) for the Prevention of Significant Deterioration (PSD) of Air Quality for emissions of particulate matter. Mist eliminators on the cooling towers will be designed to achieve a maximum drift rate of 0.0005% of the circulating water flow rate.

The attached Final Determination summarizes the publication and comment process. There were no requests for an administrative hearing. I recommend your approval of the attached final permit for this project.

Attachments

JK/TLV/jfk

PERMITTEE

Florida Power & Light Company
700 Universe Boulevard
Juno Beach, FL 33408

PERMITTING AUTHORITY

Florida Department of Environmental Protection (Department)
Division of Air Resource Management
Bureau of Air Regulation, New Source Review Section
2600 Blair Stone Road, MS #5505
Tallahassee, Florida 32399-2400

PROJECT

Air Permit No. PSD-FL-409
Air Construction Permit Project No. 0250003-013-AC
Florida Power & Light Company, Turkey Point Power Plant
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NOTICE AND PUBLICATION

The Department distributed a draft air construction permit package on March 19, 2010. The applicant published the Public Notice in The Miami Herald on April 23, 2010. The Department received the proof of publication on April 27, 2010. No requests for administrative hearings or requests for extensions of time to file a petition for administrative hearing were received.

COMMENTS

No comments on the draft permit were received from the public, the Miami-Dade Department of Environmental Resources Management or the EPA Region 4 Office. The applicant provided minor comments on the draft permit resulting in the following corrections and clarifications.

1. **Section 2, Condition 7(a), First Sentence**: Clarify as follows, "Except as provided in Condition 7(b) below, ~~A~~authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time." **Response**: Because of the extended construction schedule for this project, Condition 7(b) requires the permittee to submit an updated BACT analysis at least 12 months prior to the planned construction date due. The suggested addition clarifies the original intent.
2. **Section 3, Subsection A, Permitting Note**: Add closing bracket to permitting note below emissions unit descriptions. "*{Permitting Note: In accordance with Rule 62-212.400(PSD), F.A.C., the above emission units are subject to Best Available Control Technology (BACT) determinations for particulate matter (PM and PM_{10}). The final BACT determinations are presented in Appendix E of this permit.}*" Response: This corrects a typographical error.

3. **Section 3, Subsection A, Condition No. 1**: Clarify first sentence as follows, "Cooling Towers: The permittee is authorized to construct and operate the following new cooling towers (Westinghouse AP1000 requirement or equivalent equipment) ..." **Response**: This clarifies that the "Westinghouse AP1000" is a specification.

4. **Section 3, Subsection B, Condition No. 1d**: Correct the period at the end to a semicolon. **Response**: This corrects a typographical error.

5. **Section 3, Subsection D, Condition No. 1**: Add an "s" to cubic yard, "Concrete Batch Plant: The permittee is authorized to install a temporary 3-unit, fully-automatic concrete batch plant (EU-021) with a capacity of 250 cubic yards per hour per each unit (two operating units and one standby unit)." This corrects a typographical error.

6. **Section 3, Subsection D, Condition No. 3**: Delete the unnecessary word "of" after operation, "The hours of operation ~~of~~ are not limited (8760 hours per year)." **Response**: This corrects a typographical error.

7. **Section 3, Subsection D, Condition No. 10**: Clarify by adding the word "applicable" to this condition, "Visible Emissions Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit. For each test, the report shall also indicate concrete batching rate and truck loading rate as applicable." **Response**: This clarification is acceptable.

The applicant also made the following comments on the Technical Evaluation and Preliminary Determination.

1. **Page 3, Project Description, Second Paragraph**: The fourth sentence states, "Drift eliminators are proposed to minimize PM and PM_{10} emissions caused by the cooling tower drift to no more than 0.0005% of the circulating water flow." The applicant understands that drift eliminators are proposed to limit cooling tower drift to no more than 0.0005% of the circulating water flow rate to minimize PM and PM_{10} emissions. **Response**: This is the intended meaning.

2. **Page 6**: The graph labeled "PM/PM_{10} Emission Rate vs. TDS" identifies a circulating water flow rate of 306,000 gallons per minute (gpm). This typographical error on the label of the graph resulted from a typographical error in information provided in the application. However, the resulting calculations and other related information in the graph are based on the correct flow rate of 631,000 gpm. **Response**: Correction noted.

3. **Page 9, Section 4**: Table C identifies total PM emissions for reclaimed water as 33.7 tons/year, which should be 55.3 tons/year based on potential emissions at a TDS concentration of 4000 ppmw for the reclaimed water. **Response**: The purpose of the table is to show the range of PM and PM_{10} emissions rates for the two sources of water and not necessarily identify potential emissions. On Page 6, PM emissions were also estimated at 32.1 tons/year based on a TDS concentration of 2320 ppmw for the reclaimed water and 4 cycles of concentration.

CONCLUSION

The final action of the Department is to issue the permit with the minor changes, corrections and clarifications as described above.

Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

PERMITTEE

Florida Power & Light Company
700 Universe Boulevard
Juno Beach, FL 33408

Authorized Representative:
Mr. Randall R. LaBauve
Vice President, Environmental Services

Air Permit No. PSD-FL-409
Project No. 0250003-013-AC
Expires: July 1, 2024
Turkey Point Power Plant
Facility ID No. 0250003
Cooling Tower Project for Units 6 and 7

FACILITY AND LOCATION

This permit authorizes construction of the following permanent equipment: six wet circulating water cooling towers, two service water cooling towers, diesel tanks, standby diesel generators, ancillary diesel generators, diesel fire pumps and miscellaneous general purpose diesel equipment. The project also authorizes the following temporary equipment that will be used to construct the permanent equipment: two temporary construction boilers and a temporary concrete batch plant. The proposed work will be conducted at the existing Turkey Point Power Plant, which is an electric service facility identified by Standard Industrial Classification Code No. 4911. The facility is located in Miami-Dade County at 9700 Southwest 344th Street in Homestead, Florida. The UTM coordinates are Zone 17, 566.59 km East and 2,813.21 km North.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); and Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit. As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

Joseph Kahn, Director
Division of Air Resource Management

5/26/10
(Date)

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit with Appendices) was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on 5/28/10 to the persons listed below.

Mr. Randall R. LaBauve, FPL (randall_r_labauve@fpl.com)
Mr. Matthew J. Raffenberg, FPL (matthew.raffenberg@fpl.com)
Mr. Kennedy F. Kosky, Golder Associates Inc. (kkosky@golder.com)
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Mr. Patrick Wong, Miami-Dade DERM (wongp@miamidade.gov)
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Mr. Dee Morse, NPS (dee_morse@nps.gov)
Ms. Victoria Gibson, DEP BAR Reading File (victoria.gibson@dep.state.fl.us)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

(Clerk) 5/28/10 (Date)

FACILITY AND PROJECT DESCRIPTION

The existing Turkey Point Power Plant consists of two separate, co-located power plants: the Fossil Plant and the Nuclear Plant. The two plants combined are considered a single facility for purposes of the Prevention of Significant Deterioration (PSD) and Maximum Achievable Control Technology (MACT) applicability. However, due to the strict requirements of the Nuclear Regulatory Commission (NRC), the facility has chosen to operate these two plants under separate business entities and hold separate Title V air operation permits.

The Fossil Plant consists of: two electric utility steam generating units (Units 1 and 2) with a nominal rating of 400 megawatts (MW) each that fire natural gas and residual fuel oil; a combined cycle combustion turbine unit (Unit 5) with a nominal rating of 1150 MW that uses natural gas as the primary fuel; and five fuel oil-fired black-start 2.75 MW generators. The Nuclear Plant consists of: two nuclear generating units with a combined nominal capacity of 1400 MW; nine diesel emergency generators; and miscellaneous diesel engines. The nuclear generating units are regulated by the NRC, but are not sources of air pollution. Each plant also includes other miscellaneous activities and sources of air pollution.

This project adds the following new emissions units to the Nuclear Plant.

EU ID	Emission Unit Description
015	Six circulating water cooling towers for Units 6 and 7
016	Two service water cooling towers for Units 6 and 7
017	Standby diesel generators, ancillary diesel generators and diesel fire pumps
018	Miscellaneous general purpose diesel engines powering support equipment
019	Miscellaneous diesel tanks
020	Two temporary construction boilers rated at 110 MMBtu/hour per boiler
021	Temporary concrete batch plant

REGULATORY CLASSIFICATION

- The existing facility is a major source of hazardous air pollutants (HAP).
- Units at the existing Fossil Plant are subject to the acid rain provisions of the Clean Air Act.
- The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The existing facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. The project is subject to PSD preconstruction review for total particulate matter (PM) emissions and particulate matter with a mean particle diameter of 10 microns or less (PM_{10}) emissions.
- Units at the existing Fossil Plant are subject to applicable New Source Performance Standards (NSPS) in Title 40, Part 60 of the Code of Federal Regulations.

1. Permitting Authority: The Permitting Authority for this project is the Bureau of Air Regulation in the Division of Air Resource Management of the Department. The mailing address for the Bureau of Air Regulation is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. Copies of all documents related to applications for permits shall also be submitted to the Compliance Authority.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Southeast District Office and Miami-Dade County Environmental Resources Management (DERM). The mailing address and phone number of the Southeast District Office is: 400 North Congress Avenue, Suite 200, West Palm Beach, Florida 33401. The mailing address and phone number of the Miami-Dade County Environmental Resources Management (DERM) is: 701 Northwest 1st Court, Suite 200, Miami, Florida 33136.
3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); Appendix C (Common Conditions); Appendix D (Common Testing Requirements); Appendix E (Final BACT Determinations); Appendix F (NSPS Provisions); and Appendix G (NESHAP Provisions).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: No emissions unit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Source Obligation:
   (a) Except as provided in Condition 7(b) below, authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between construction of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the Department in the permit.
   (b) Because of the lengthy licensing process for the nuclear units, it is unlikely that construction will commence within 18 months of issuance of this air construction permit. For this case, the permittee shall submit an updated BACT analysis at least 12 months prior to the planned construction date. After review, the Department may determine that a permit revision is unnecessary or require the submittal of an application for a revised air construction permit.

   [Rule 62-212.400(12), F.A.C.]
8. Title V Permit Revision: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a revised Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

A. Cooling Towers (EU-015 and EU-016)

This subsection of the permit addresses the following emissions unit.

ID No.	Emissions Unit Description
015	Six circulating water cooling towers for Units 6 and 7
016	Two service water cooling towers for Units 6 and 7

{Permitting Note: In accordance with Rule 62-212.400(PSD), F.A.C., the above emission units are subject to Best Available Control Technology (BACT) determinations for particulate matter (PM and PM_{10}). The final BACT determinations are presented in Appendix E of this permit.}

EQUIPMENT

1. Cooling Towers: The permittee is authorized to construct and operate the following new cooling towers (Westinghouse AP1000 requirement or equivalent equipment):

   a. Three circulating water cooling towers per nuclear unit with the following nominal design characteristics *per cooling tower*: 12 cells with cooling fans; a height of approximately 67 feet; an air exhaust flow rate of 21,174,000 acfm; an air exit temperature of 104.7° F; a circulating water flow rate of 210,367 gpm; and high-efficiency mist eliminators designed for a drift rate of no more than 0.0005% of the circulating water flow rate. These large cooling towers shall use reclaimed water as the primary source of cooling water and may use saltwater from radial collector wells as the backup source of cooling water or a combination of reclaimed water and saltwater.

   b. One new service water cooling tower per nuclear unit with the following nominal design characteristics *per cooling tower*: 2 cells with cooling fans; a height of approximately 63 feet; an air exhaust flow rate of 2,716,000 acfm; an air exit temperature of 96.9° F; a circulating water flow rate of 21,000 gpm; and high-efficiency mist eliminators designed for a drift rate of no more than 0.0005% of the circulating water flow rate. These cooling towers shall use service water as the source of cooling water.

   [Design; Application No. 0250003-013-AC; and Rule 62-212.400, F.A.C. (BACT for PM and PM_{10})]

2. Hours of Operation: The new cooling towers may operate continuously (8760 hours per calendar year). [Application No. 0250003-013-AC]

PERFORMANCE SPECIFICATIONS AND REPORTING REQUIREMENTS

3. Cooling Tower Design Drift Rate: All new cooling towers shall be designed with high-efficiency mist eliminators to achieve a maximum droplet drift rate of no more than 0.0005% of the circulating water flow rate. Within 60 days of commencing operation, the permittee shall notify the compliance authority that the cooling towers were constructed to achieve this droplet drift rate specification. [Design; Application No. 0250003-13-AC; and Rule 62-212.400, F.A.C. (BACT for PM and PM_{10})]

4. Circulating Water Flow Rate: The applicant shall provide a means for determining the circulating water flow rate through the new cooling tower. The actual flow rates shall be used to estimate particulate matter emissions. [Rule 62-4.070, F.A.C.]

5. Emissions Report: PM and PM_{10} emissions from the cooling towers shall be reported as part of the annual operating report. [Rules 62-212.400(BACT) and 62-210.370(3), F.A.C.]

B. Permanent Diesel Engines (EU-017 and EU-018) and Diesel Tanks (EU-019)

This section of the permit addresses the following emissions units.

ID No.	Emission Unit Description
017	Standby diesel generators, ancillary diesel generators and diesel fire pumps
018	Miscellaneous general purpose diesel engines powering support equipment
019	Miscellaneous diesel tanks

EQUIPMENT

1. New Equipment: The permittee is authorized to construct:
   a. Four nominal 4000 kW standby diesel generators (EU-017);
   b. Four nominal 35 kW ancillary diesel generators (EU-017);
   c. Two nominal 330 hp diesel fire pumps (EU-017);
   d. Miscellaneous general purpose diesel engines (EU-018) powering support equipment;
   e. Four nominal 60,000 gallon diesel tanks (EU-019) associated with the standby diesel generators;
   f. Four nominal 1300 gallon diesel day tanks (EU-019) associated with the standby diesel generators;
   g. Two nominal 650 diesel tanks (EU-019) associated with the ancillary diesel generators; and
   h. Two nominal 240 gallon diesel tanks (EU-019) associated with the diesel fire pumps.

   The total capacity of the miscellaneous general purpose diesel engines (EU-018) shall not exceed 600 horsepower (hp). The stated capacities of the diesel tanks are approximate. Additional small tanks may be required for the miscellaneous general purpose diesel engines. Since potential emissions of volatile organic compounds (VOC) from all diesel tanks are negligible (estimated at less than 0.01 tons per year), the permittee may update the final tank capacities in the revised Title V application to add these emissions units. [Application No. 0250003-013-AC]

2. Hours of Operation: Each diesel engine may operate as necessary to support emergency operations including a loss of power or fire at the facility. As requested in the application, each generator and fire pump may operate for up to 96 hours per year of non-emergency operation to ensure that the units remain in working order. [Application No. 0250003-013-AC]

PERFORMANCE SPECIFICATIONS AND REPORTING REQUIREMENTS

3. Authorized Fuel: All of the diesel-powered engines for the following new equipment shall fire only ultra-low sulfur diesel with a maximum sulfur content of 0.0015% by weight: standby generators, ancillary generators and fire pumps (EU-017); and miscellaneous general purpose diesel engines powering support equipment (EU-018). [Application No. 0250003-013-AC; and Rule 62-212.400, F.A.C. (BACT for PM and PM_{10})]

4. Applicable NSPS Provisions: Depending on the final equipment selection, date of manufacture, use and final federal regulations, the diesel-powered engines identified in this subsection may be subject to applicable provisions in NSPS Subpart A (General Provisions) and Subpart IIII (Stationary Compression Ignition Internal Combustion Engines) of 40 CFR 60, which are identified in Appendix F of this permit. The engines shall comply with the applicable provisions in NSPS Subparts A and IIII. [NSPS Subparts A and IIII in 40 CFR 60; and Rule 62-204.800, F.A.C.]

5. Applicable NESHAP Provisions: Depending on the final equipment selection, date of manufacture, use and final federal regulations, the diesel-powered engines identified in this subsection may be subject to

applicable provisions in NESHAP Subpart A (General Provisions) and Subpart ZZZZ (Reciprocating Internal Combustion Engines) of 40 CFR 63, which are identified in Appendix G of this permit. The engines shall comply with the applicable provisions in NESHAP Subparts A and ZZZZ. [NESHAP Subparts A and ZZZZ in 40 CFR 63; and Rule 62-204.800, F.A.C.]

6. Operational Records: For purposes of the Annual Operating Report, the permittee shall maintain records of the hours of operation and fuel consumption of the diesel-powered engines for the standby generators, ancillary generators and fire pumps in this subsection (EU-017). [Rules 62-4.070(3) and 62-210.370(3), F.A.C.]

C. Temporary Construction Boilers (EU-020)

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
020	Two temporary construction boilers rated at 110 MMBtu/hour per boiler

{Permitting Note: The equipment specified in this subsection have been identified by the permittee as temporary equipment related to construction of the permanent equipment associated with proposed new nuclear Units 6 and 7. Once the new nuclear units are in operation, the temporary equipment will be permanently shut down and removed from the site. As such, emissions from the temporary equipment are considered secondary emissions; however, the boilers are subject to Rule 62-296.406, F.A.C., which requires a state BACT determination for PM and SO_2 emissions and may be subject to applicable provisions in NSPS Subpart Db}.

EQUIPMENT

1. Temporary Construction Boilers: The permittee is authorized to install and operate two temporary construction boilers (EU-020) rated at 110 MMBtu/hour per boiler. The temporary boilers will be used to steam clean piping and tubing during the construction of proposed new nuclear Units 6 and 7. Once Units 6 and 7 commence operation, the temporary construction boilers shall be permanently shut down and removed from the site. [Design and Application No. 0250003-013-AC]

PERFORMANCE RESTRICTIONS

2. Permitted Capacity: The maximum heat input rate to each boiler is 110 MMBtu per hour.
3. Authorized Fuels: Each boiler shall fire only: natural gas; propane; or ultra-low sulfur diesel with a maximum sulfur content of 0.0015% by weight. [Application No. 0250003-013-AC; and Rule 62-296.406(BACT), F.A.C.]
4. Restricted Operation: The maximum heat input to both boilers (combined) shall not exceed 550,000 MMBtu during any consecutive 12 months. [Rule 62-210.200(PTE), F.A.C.]

EMISSIONS STANDARDS

5. Visible Emissions: Visible emissions from the boilers shall not exceed 20% opacity except for one 6-minute period per hour during which opacity shall not exceed 27%. [Rule 62-296.406, F.A.C.]
6. Particulate Matter: In addition to any applicable emissions standard in NSPS Subpart Db, emissions of particulate matter shall be controlled by firing only the following authorized fuels: natural gas; propane; and ultra-low sulfur diesel with a maximum sulfur content of 0.0015% by weight. [Rule 62-296.406(BACT), F.A.C.]
7. Sulfur Dioxide: In addition to any applicable emissions standard in NSPS Subpart Db, emissions of sulfur dioxide shall be controlled by firing only the following authorized fuels: natural gas; propane; and ultra-low sulfur diesel with a maximum sulfur content of 0.0015% by weight. [Rule 62-296.406(BACT), F.A.C.]

TESTING REQUIREMENTS

8. Initial Compliance Tests: Each boiler shall be tested to demonstrate initial compliance with the visible emissions standard. The initial tests shall be conducted within 60 days after achieving permitted capacity, but not later than 180 days after initial operation of the unit. [Rules 62-4.070(3) and 62-297.310(7)(a)1, F.A.C.]
9. Annual Compliance Tests: During each federal fiscal year (October 1st to September 30th), each boiler shall be tested to demonstrate compliance with the visible emissions standard. [Rule 62-297.310(7)(a)4, F.A.C.]
10. Test Requirements: Compliance with the visible emissions standard shall be determined by EPA Method 9.

The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(7)(a)9, F.A.C.]

MONITORING REQUIREMENTS

11. Operational Records: For purposes of the Annual Operating Report, the permittee shall maintain records of the hours of operation and fuel consumption of each boiler in this subsection. [Rules 62-4.070(3) and 62-210.370(3), F.A.C.]

RECORDS AND REPORTS

12. Visible Emissions Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. For each test, the report shall also indicate the heat input rate of the boiler. [Rule 62-297.310(8), F.A.C.]

13. Fuel Records: The permittee shall maintain monthly records of all fuel usage to demonstrate compliance with the heat input limit in the subsection. For ultra-low sulfur diesel fuel, the permittee shall maintain the records necessary to demonstrate compliance with the fuel sulfur specification. A vendor certification of the fuel sulfur content for each as-delivered shipment is sufficient. The vendor certification shall identify the quantity of fuel delivered, the heating value, the fuel sulfur content and the methods used to determine the fuel sulfur content. Rule 62-4.070(3), F.A.C.]

FEDERAL NSPS PROVISIONS

14. Applicable NSPS Provisions: Depending on the final equipment selection, date of manufacture, use and final federal regulations, the temporary construction boilers may be subject to applicable provisions in NSPS Subpart A (General Provisions) and Subpart Db (Industrial-Commercial-Institutional Boilers) of 40 CFR 60, which are identified in Appendix F of this permit. [NSPS Subparts A and Db in 40 CFR 60; and Rule 62-204.800, F.A.C.]

D. Temporary Concrete Batch Plant (EU-021)

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
021	Temporary concrete batch plant

{Permitting Note: The equipment specified in this subsection have been identified by the permittee as temporary equipment related to construction of the permanent equipment associated with proposed new nuclear Units 6 and 7. Once the new nuclear units are in operation, the temporary equipment will be permanently shut down and removed from the site. As such, emissions from the temporary equipment are considered secondary emissions and were not reviewed for BACT.}

EQUIPMENT

1. Concrete Batch Plant: The permittee is authorized to install a temporary 3-unit, fully-automatic concrete batch plant (EU-021) with a capacity of 250 cubic yards per hour per each unit (two operating units and one standby unit). Once Units 6 and 7 commence operation, the temporary concrete batch plant shall be permanently shut down and removed from the site. [Design and Application No. 0250003-013-AC]

2. Fabric Filters: The permittee is authorized to install fabric filters as necessary to comply with the visible emission standards of this permit. [Rule 62-4.070(3), F.A.C.]

PERFORMANCE RESTRICTIONS

3. Restricted Operation: The hours of operation are not limited (8760 hours per year). [Rule 62-210.200(PTE), F.A.C.]

EMISSIONS STANDARDS

4. Stack Emissions: Emissions from silos, weigh hoppers (batchers) and other enclosed storage and conveying equipment shall be controlled to the extent necessary to limit visible emissions to 5% opacity. [Rule 62-296.414(1), F.A.C.]

5. Unconfined Emissions: The owner or operator shall take reasonable precautions to control unconfined emissions from hoppers, storage and conveying equipment, conveyor drop points, truck loading and unloading, roads, parking areas, stock piles and yards as required by paragraph 62-296.320(4)(c), F.A.C. For concrete batch plants, the following shall constitute reasonable precautions:

   a. Management of roads, parking areas, stock piles and yards, which shall include one or more of the following:

      (1) Paving and maintenance of roads, parking areas and yards.

      (2) Application of water or environmentally safe dust-suppressant chemicals when necessary to control emissions

      (3) Removal of particulate matter from roads and other paved areas under control of the owner or operator to mitigate re-entrainment, and from building or work areas to reduce airborne particulate matter.

      (4) Reduction of stock pile height or installation of wind breaks to mitigate wind entrainment of particulate matter from stock piles.

   b. Use of spray bar, chute or partial enclosure to mitigate emissions at the drop point to the truck.

   [Rule 62-296.414(2), F.A.C.]

TESTING REQUIREMENTS

6. Test Methods and Procedures: All emissions tests performed pursuant to the requirements of this subsection shall comply with the following requirements.

   a. Visible emissions test shall be conducted in accordance with EPA Method 9, as described in Appendix A of 40 CFR 60, incorporated by reference at Rule 62-204.800, F.A.C.

   b. Test procedures shall conform to the procedures specified in Rule 62-297.310, F.A.C. All test results shall be reported to the Department in accordance with the provisions of Rule 62-297.310, F.A.C. See Appendix D of this permit.

   c. Visible emissions tests of silo dust collector exhaust points shall be conducted while loading the silo at a rate that is representative of the normal silo loading rate. The minimum loading rate shall be 25 tons per hour unless such rate is unachievable in practice. If emissions from the weigh hopper (batcher) operation are also controlled by the silo dust collector, the batching operation shall be in operation during the visible emissions compliance test. The batching rate during the emissions test shall be representative of the normal batching rate and duration. Each test report shall state the actual silo loading rate during emissions testing and, if applicable, whether or not batching occurred during emissions testing.

   d. If emissions from the weigh hopper (batcher) operation are controlled by a dust collector which is separate from the silo dust collector, visible emissions tests of the weigh hopper (batcher) dust collector exhaust point shall be conducted while batching at a rate that is representative of the normal batching rate and duration. Each test report shall state the actual batching rate during emissions testing.

   [Rule 62-296.414(4), F.A.C.]

7. Initial Compliance Tests: No later than 30 days after commencing operation of the concrete batch plant, the owner or operator shall have initial compliance tests conducted for visible emissions from each dust collector exhaust point. [Rules 62-4.070(3) and 62-296.414(4), F.A.C.]

8. Annual Compliance Tests: During each federal fiscal year (October 1st to September 30th), the owner or operator shall have compliance tests conducted for visible emissions from each dust collector exhaust point. [Rules 62-296.414(4) and 62-297.310(7)(a)4, F.A.C.]

MONITORING REQUIREMENTS

9. Operational Records: For purposes of the Annual Operating Report, the permittee shall maintain records of the hours of operation and tons of concrete produced. [Rules 62-4.070(3) and 62-210.370(3), F.A.C.]

RECORDS AND REPORTS

10. Visible Emissions Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit. For each test, the report shall also indicate concrete batching rate and truck loading rate as applicable. [Rule 62-297.310(8), F.A.C.]

FPL

April 16, 2010 FPLNNP-10-0109

Mr. Jeffrey F. Koerner, Administrator, New Source Review Section
Florida Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia St.
Tallahassee, FL 32399

Re: FPL Turkey Point Units 6 & 7 Project
Prevention of Significant Deterioration Draft Permit
Project No. 0250003-013-AC (PSD-FL-409)

Dear Mr. Koerner:

Florida Power & Light (FPL) hereby respectfully submits comments on the Turkey Point Units 6 & 7 Prevention of Significant Deterioration (PSD) Draft Air permit, (permit number PSD-FL-409) issued on March 19, 2010. FPL also offers comments on the associated Technical Evaluation and Preliminary Determination. Our comments are described in Attachment I. We appreciate the opportunity to comment on these documents. Should you have any questions or need additional information regarding the attached, please feel to contact me at (561) 691-7518 or Matthew Raffenberg at (561) 691-2808.

Sincerely,
FLORIDA POWER & LIGHT COMPANY

Barbara P. Linkiewicz
Director of Environmental Licensing

Attachment

cc: Timothy Gray, FDEP Southeast District Office
Michael Halpin, FDEP Siting Office
Trina Vielhauer, FDEP Bureau of Air Regulation
Peter Cunningham, Esq., Hopping Green & Sams P.A.
Kennard Kosky, Golder Associates Inc.
Lennon Anderson, FDEP Southeast District
Patrick Wong, Miami-Dade DERM
Mallika Muthias, Miami-Dade DERM
Dee Morris, National Park Service, Air Resources Division
Kathleen Forney, EPA Region 4
Heather Abrams, EPA Region 4
Ana M. Oquendo, EPA Region 4
Vickie Gibson, FDEP BAR Reading File
Matthew J. Raffenberg, FPL
Michael S. Tammaro, Esq., FPL

5-27-10

Vickie,
Please use their comment letter to check the final determination and changes made to the final permit.

Thanks!
Jeff

FPL

Attachment I

Comments on Turkey Point Units 6 & 7 PSD Draft Permit and Technical Evaluation and Preliminary Determination

Draft Permit

1. Page 4, Section 2., condition 7- without clarification of the language underlined and shown below, Condition 7(b) could be seen as inadequate to change the result mandated by paragraph 7(a). FPL suggests the addition of the underlined language for clarification.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

7. Source Obligation:

(a) Except as provided in Condition 7.(b) below, authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between construction of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the Department in the permit.

(b) Because of the lengthy licensing process for the nuclear units, it is unlikely that construction will commence within 18 months of receipt of this air construction permit. For this case, the permittee shall submit an updated BACT analysis at least 12 months prior to the planned construction date. After review, the Department may determine that a permit revision is unnecessary or require the submittal of an application for a revised air construction permit.

2. Page 5, Section 3, Part A, Permitting Note - Add symbol to close the paragraph in the permitting note.

3. Page 5, Section 3, Part A, item 1. – FPL suggests the addition of the underlined language for clarification. "The permittee is authorized to construct and operate the following new cooling towers (Westinghouse AP1000 requirement or equivalent equipment)."

4. Page 6, Section 3, Part B, Equipment, item 1.d.- Change the period at the end of the statement to a semicolon.

5. Page 10, Section 3, Part D, Equipment, item 1.- The word "yard" in "cubic yard" should be plural.

6. Page 10, Section 3, Part D, Performance Restrictions, item 3.- Delete the word "of" in "The hours of operation of are not limited (8760 hours per year).

7. Page 11, Section 3, Part D, Records and Reports, item 10. - FPL suggests the addition of the underlined language for clarification, "The permittee shall prepare and submit reports for all required tests in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit." This addition would make the language consistent with the language in the first paragraph of page 9.

Technical Evaluation and Preliminary Determination

FPL has reviewed this document and understands that this document will not be revised but comments may be included in the Department's Final Determination. In this respect, FPL provides the following comment that could be addressed in the Final Determination if the Department believes it is necessary:

1. Page 3, Project Description, second paragraph, fourth sentence- The sentence currently states "Drift eliminators are proposed to minimize PM and PM10 emissions caused by the cooling tower drift to no more than 0.0005% of the circulating water flow." It is our understanding that drift eliminators are proposed to limit cooling tower drift to no more than 0.0005% of the circulating water flow to minimize PM and PM_{10} emissions.

2. Page 6, Graph labeled PM/PM10 Emission Rate vs. TDS- This graph was provided by FPL in the PSD Report. We recently identified a title error in the flow rate included in the header. The flow rate should be 631,000 GPM not 306,000 GPM. This error was a carryover from a previous graph title and only affects the graph title. The calculations and other data presented in the PSD Report are based on the correct flow rate of 631,000 GPM for the circulating water cooling towers.

3. Page 9, item 4. BACT Determination, Table C., Circulating Cooling Towers
   a. The value in the Column titled "Reclaimed Water" and the Row titled "PM" should be 55.3 rather than 33.7. The 55.3 is the correct potential emissions at 4,000 ppmw. Please note that the 33.7 tons/year for PM emissions from Reclaimed Water should be 55.3 tons/year to reflect the "potential emissions" for PM emissions when using reclaimed water. The potential PM emissions of 55.3 tons/year for reclaimed water reflect a maximum TDS of 4,000 ppmw in the circulating water. The PM10 emissions for reclaimed water and PM/PM10 emissions for saltwater also reflect "potential emissions" for the circulating water cooling towers."

Livingston, Sylvia

From: Livingston, Sylvia
Sent: Friday, May 28, 2010 2:47 PM
To: 'randall_r_labauve@fpl.com'
Cc: 'matthew.raffenberg@fpl.com'; 'kkosky@golder.com'; Anderson, Lennon; 'wongp@miamidade.gov'; 'muthim@miamidade.gov'; Halpin, Mike; 'forney.kathleen@epa.gov'; 'abrams.heather@epa.gov'; 'oquendo.ana@epa.gov'; 'dee_morse@nps.gov'; Gibson, Victoria; Koerner, Jeff; Walker, Elizabeth (AIR); McWade, Tammy
Subject: Florida Power & Light - Turkey Point Power Plant; 0250003-013-AC/ PSD-FL-409
Attachments: 0250003-013-AC_Signatures.pdf

Dear Sir/ Madam:

Attached is the official **Notice of Final Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

*Note: **We must receive verification that you are able to access the documents.** Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).*

Click on the following link to access the documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0250003.013.AC.F_pdf.zip

Owner/Company Name: FLORIDA POWER and LIGHT (PTF)
Facility Name: TURKEY POINT POWER PLANT
Project Number: 0250003-013-AC/ PSD-FL-409
Permit Status: FINAL
Permit Activity: CONSTRUCTION
Facility County: MIAMI-DADE
Processor: Jeff Koerner

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "*Air Permit Documents Search*" website at http://www.dep.state.fl.us/air/emission/apds/default.asp.

Project documents that are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation at (850)488-0114.

Sylvia Livingston
Bureau of Air Regulation
Division of Air Resource Management (DARM)
Department of Environmental Protection
850/921-9506

Livingston, Sylvia

From: LaBauve, Randall R [Randall.R.LaBauve@fpl.com]
Sent: Friday, May 28, 2010 2:56 PM
To: Livingston, Sylvia
Subject: RE: Florida Power & Light - Turkey Point Power Plant; 0250003-013-AC/ PSD-FL-409

Received. Thank you.

From: Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]
Sent: Friday, May 28, 2010 2:47 PM
To: LaBauve, Randall R
Cc: Raffenberg, Matthew; kkosky@golder.com; Anderson, Lennon; wongp@miamidade.gov; muthim@miamidade.gov; Halpin, Mike; forney.kathleen@epa.gov; abrams.heather@epa.gov; oquendo.ana@epa.gov; dee_morse@nps.gov; Gibson, Victoria; Koerner, Jeff; Walker, Elizabeth (AIR); McWade, Tammy
Subject: Florida Power & Light - Turkey Point Power Plant; 0250003-013-AC/ PSD-FL-409

Dear Sir/ Madam:

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Sylvia Livingston