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DIVISION OF AIR
RESOURCE MANAGEMENT

Revision 1
October 30, 2012

Mr. Jeff Koerner
Florida Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road, MS#5505
Tallahassee, FL 32399

**Subject: Florida Power & Light Company
Martin Power Plant Units 1 & 2
Installation of Electrostatic Precipitators
DEP File No. 0850001-029-AC**

Dear Mr. Koerner:

Florida Power & Light Company (FPL) is in receipt of the Draft Air Construction Permit and Technical Evaluation and Preliminary Determination (TEPD) for the installation of Electrostatic Precipitators (ESP's) at Martin Power Plant Units 1 & 2, issued by the Florida Department of Environmental Protection (Department) September 25, 2012. In accordance with the Department's written Notice of Intent to Issue Air Permit in the above referenced file, this letter and attachments constitute FPL's written comments on the Draft Air Construction Permit, TEPD, and Appendices (Attachments 1 & 2). These comments address several clarifications and corrections that FPL would request be considered by the Department.

FPL appreciates the opportunity to review the draft air construction permit for the ESP's at the Martin Power Plant Units 1 & 2. Please contact me (561) 691-2808 or Stacy Foster at (561) 691-7065 if you would like clarification on FPL's comments.

Sincerely,
Florida Power & Light Company

Stacy M Foster for MATTHEW J. RAFFENBERG

Matthew J. Raffenberg
Director, FPL Licensing and Permitting

Cc: Cindy Mulkey, DEP Siting Office
David Williams, Martin Plant Manager
Ken Kosky, Golder Associates
Mike Halpin, DEP Siting Office

Jeff Koerner, DEP Bureau of Air Regulations

Bcc: Tom Young, FPL
Justin Sobol, FPL
John Hampp, FPL
Kevin Washington, FPL
Ashley Pinnock, FPL
Stacy Foster, FPL
Willie Welch, FPL
Paul Callahan

ATTACHMENT 1

Martin Power Plant-Units 1 & 2 PSD Draft Air Permit, issued September 25, 2012 Florida Power & Light Company – Comments

Rev 1:October 30, 2012

1. **Section 1. General Information:** We request the following clarification:

“Finally, as part of the ESP construction, foundations for ancillary pollution control equipment ~~will~~ ~~may~~ be installed.”...” The additional foundations ~~are-being-may be~~ installed at this time should ancillary control equipment be necessary for additional emission reductions in the future.”

2. **Section 3. Emissions Unit Specific Conditions Description:** We request the following clarification:

“Both emissions units are identical in configuration and each one is an 863.3 megawatt (MW) maximum capacity fossil fuel fired steam generator unit, equipped with low nitrogen oxides (NOX) dual fuel firing burners to reduce emissions of nitrogen oxides; and multicyclones (mechanical dust collectors), ~~with fly ash reinjection~~, to control particulate matter (PM) emissions.”

3. **Section 3. Specific Condition 3.b(1):** We request the following clarification. There is no maximum design transfer rate for removal of the fly ash from the storage silos. FPL requests this condition is omitted from the permit.

~~“(1) *Transfer Rate.* The fly ash handling and storage equipment, including both storage silos, will have a maximum design transfer rate of approximately 2,114 pounds per hour (wet) equating to 2.12 tons per hour (TPH) with a maximum annual design transfer rate of approximately 18,571 TPY.”~~

4. **Section 3. Specific Condition 3.b(3)(b):** We request the following clarification:

“Fly Ash Storage Silos. Two bin vent filter baghouses (or equivalent) will be designed, installed and maintained to remove PM from the fly ash storage silos exhaust during loading operations. It is expected that a ~~Siemens~~ Size 33 Model 36 WCC Bin Vent High Energy Pulse Cleaned Cartridge will be specified as a component of the baghouses. The baghouses will be installed and operational before the silos become operational. The baghouses will be designed to achieve a dust outlet loading of 0.005 gr/dscf. The air volume flow rate will be approximately 2,100 feet per minute.”

5. **Section 3. Specific Condition 5:** We request the following clarification:

“Circumvention. The permittee shall not circumvent the ESP or allow the emission of air pollutants without this equipment operating properly per the manufacturers operating instructions ~~when firing oil.~~”

6. **Section 3. Specific Condition 6:** We request the following clarification:

“PM/PM10 Emissions Limit. PM/PM10 emissions shall not exceed 0.03 pounds per million Btu of heat input (lb/MMBtu) ~~except for periods of startup or shutdown.~~”

7. **Section 3. Specific Conditions:** For consistency with Air Permit No. 0810010-016-AC, issued for the installation of two ESP's at Manatee Power Plant Units 1 & 2, we request the following condition be included.

UNIT TUNING AFTER ESP INSTALLATION

7. Excess Emissions: After installation of an ESP on a fossil fuel steam generator unit, excess emissions are allowed for that unit for a total of 300 hours while the unit is tuned to meet the NOX and CO emission limits specified in the Title V Air Operation Permit (DEP File No. 0810010-014-AV). Tuning must be completed within 30 operating days for each unit once tuning commences. [Applicant's Request and Rule 62-210.700(5), F.A.C.]

EMISSIONS STANDARDS

7. PM/PM10 Emissions Limit During Soot Blowing and Load Change: PM/PM10 emissions shall not exceed 0.10 lb/mmBtu during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

- a) A load change occurs when the operational capacity of a unit is in the 10% to 100% capacity range, other than startup or shutdown, which exceeds 10% of the unit's rated capacity and which occurs at a rate of 0.5% per minute or more.

ATTACHMENT 2

Martin Power Plant-Units 1 & 2 Technical Evaluation and Preliminary Determination, issued September 25, 2012 Florida Power & Light Company – Comments

October 26, 2012

1. **Section 1. General Project Information: Facility Emission Units:** We request the following clarification:

“Both emissions units are identical in configuration and each one is an 863.3 megawatt (MW) maximum capacity fossil fuel fired steam generator unit, equipped with low nitrogen oxides (NOX) dual fuel firing burners to reduce emissions of nitrogen oxides; and multicyclones (mechanical dust collectors), **with fly ash reinjection**, to control particulate matter emissions.”

2. **Section 1. General Project Information: Project Description:** There are several instances throughout the description which refer to the ESP as being singular, when in fact, this project consists of the construction of two ESP's. We request the following clarification:

“The project is to construct an ESP **on each of** steam generators EU 001 and 002. The existing cyclones used to control particulate matter (PM) and particulate matter with a mean diameter of 10 microns or less (PM10) emissions from the units will be removed and replaced by the ESP's. To handle the additional fly ash collected by ~~the~~ **each** ESP, a fly ash handling, storage and shipment system including two storage silos will be designed and installed. PM emissions from the silos will be controlled by the integral baghouses (bin vent filters). Finally, as part of the ESP's installation, foundations for the ESP's and ancillary pollution control equipment **will may be** installed. The plant is installing the ESP's to meet the emission limits in the 40 Code of Federal Regulations (CFR) 63, Subpart UUUUU - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Coal- and Oil-Fired Electric Utility Steam Generating Units.

As a result of this project, new exempt activities are created at the facility for handling, storing and shipping fly ash.

According to the applicant, installation of the ESP's will result in a reduction of actual PM/PM10 emissions from EU 001 and 002 of approximately 110.7 tons per year (TPY). As a result of adding the exempt ash handling equipment, PM/PM10 emissions will increase by less than 1.0 TPY. No other emissions of any regulated pollutant at the facility will be affected by the project. Actual emissions of particulate matter will also be reduced by the more efficient control equipment.”

3. **Section 3. Department Review: Overview:** There are several instances throughout the description which refer to the ESP as being singular, when in fact, this project consists of the construction of two ESP's. We request the following clarification:

“To control PM/PM10 emissions from EU 001 and 002, the permittee will install a Siemens Environmental Systems & Services (SESS) rigid frame type dry electrostatic precipitator (ESP) for each fossil fuel steam generator unit (total of two per site), complete with rapping systems, control systems, and various other auxiliaries for a complete system. The ESP's will replace the cyclones currently used to control PM/PM10 emissions. Each ESP will have the following approximate design specifications: four (4) cells across the gas flow, six (6) mechanical fields along the gas flow, with twenty-four (24) independent electrical bus sections. ~~The Each~~ ESP is designed to process 100 percent of the total unit flue gas from the upstream air heater to remove solid particulate matter before exhausting to the stack.

Design current density is 0.047 milliampere per square foot (mA/ft²) of plate area. The specific collection area is 105 square feet per 1,000 actual cubic feet per minute (acfm). ~~The Each~~ ESP will have an energy management system to adjust the current as needed. Total installed power rating is 2,832 kilovolt-amperes (kVA). The design residence time is about 10 seconds.

~~The Each~~ ESP will have 1,056 collection plates. The plates will be periodically cleaned by a rapping system to release the layer of ash. The ash will fall into each of 24 hoppers and will be transferred into a silo.

As a result of the installation of the ESP's, collected fly ash will increase. To process this additional fly ash, the permittee will install a fly ash handling, storage and shipment system (EU 021). The fly ash will be transferred pneumatically from ~~each~~ ESP to two storage silos. PM emissions from each silo during loading will be controlled by a baghouse bin vent filter. The fly ash will be off loaded from the silos via a pug mill to trucks to be transported off site. Approximately two trucks per storage silo per day will be used to transport the fly ash off site. Fugitive emissions during truck loading will be controlled by a water spray system. Because of the expected negligible level of PM emissions from this EU, it meets provisions contained in Rule 62-210.300(3)(b), F.A.C., for being exempt from the requirement to obtain an air construction permit. As such, the fly ash silos and handling equipment will be incorporated into the Title V permit as Insignificant Activities at the next opportunity.”