TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

Seminole Electric Cooperative, Inc.

890 North U.S. Highway 17
Palatka, Florida 32177-8647

Seminole Generating Station
Facility ID No. 1070025

PROJECT

Draft Permit No. 1070025-022-AC
Application for Minor Source Air Construction Permit

COUNTY

Putnam County, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Office of Permitting and Compliance
2600 Blair Stone Road, MS#5505
Tallahassee, Florida 32399-2400

November 10, 2014

1. GENERAL PROJECT INFORMATION

1.1. Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control - General Provisions); 62-210 (Stationary Sources - General Requirements); 62-212 (Stationary Sources - Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources - Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

1.2. Facility Description and Location

This facility is an existing electrical generation plant categorized under Standard Industrial Classification No. 4911. The existing Seminole Generating Station is located in Putnam County at 890 North U.S. Highway 17 in Palatka, Florida. The (UTM) Coordinates are: Zone 17, 438.8kilometers (km) East and 3289.2 km North; Latitude 29° 43' 59" North and Longitude 81° 37' 58" West.

This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS).

1.3. Facility Regulatory Categories

- Based on the Title V air operation permit renewal application received on May 19, 2014, this facility is a major source of hazardous air pollutants (HAP).
- This facility does operate subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400 (PSD), F.A.C.

1.4. Project Description

The applicant applied on May 19, 2014, to the Department for a minor source air construction (AC) permit to be concurrently processed with the renewal of the facility's Title V air operation permit. The minor source AC permit is for the replacement of the current water sprays with a dry fogging dust suppression system (Project).

1.5. Application Processing Schedule

- Application for a Title V Air Operation Permit Renewal received on May 19, 2014.
- Application for AC Permit received on May 19, 2014.
- Request for Additional Information sent via e-mail on June 18, 2014.
- Additional Information Response received via e-mail on September 9, 2014 (complete).

{This document is posted and available on the Department's World Wide Web site (Link to Air Projects - Division of Air Resource Management - FDEP).}

1.6. Relevant Documents

- Permit No.1070025-021-AV, Current Valid Title V Air Operation Permit (a revision).

2. PSD APPLICABILITY

2.1. General PSD Applicability

For areas currently in attainment with the state and federal AAQS or areas otherwise designated as unclassifiable, the Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. Under preconstruction review, the Department first must determine if a project is subject to the PSD requirements ("PSD applicability review") and, if so, must conduct a PSD preconstruction review. A PSD applicability review is required for projects at new and existing major stationary sources. In addition, proposed projects at existing minor sources are subject to a PSD applicability review to determine whether potential emissions *from the proposed project itself* will exceed the PSD major stationary source thresholds. A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit:

- 250 tons per year or more of any regulated air pollutant; or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the following 28 PSD-major facility categories: fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), Kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants and charcoal production plants.

Once it is determined that a project is subject to PSD preconstruction review, the project emissions are compared to the "significant emission rates" defined in Rule 62-210.200, F.A.C. for the following pollutants: carbon monoxide (CO); nitrogen oxides (NO_X); sulfur dioxide (SO_2); particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less (PM_{10}); volatile organic compounds (VOC); lead (Pb); fluorides (F); sulfuric acid mist (SAM); hydrogen sulfide (H_2S); total reduced sulfur (TRS), including H_2S; reduced sulfur compounds, including H_2S; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as PM; municipal waste combustor acid gases measured as SO_2 and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as non-methane organic compounds (NMOC); mercury (Hg); and greenhouse gases (GHG). In addition, significant emissions rate also means any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 $\mu g/m^3$, 24-hour average.

If the potential emissions equal or exceed the defined significant emissions rate of a PSD pollutant, the project is considered "significant" for the pollutant and the applicant must employ the Best Available Control Technology (BACT) to minimize the emissions and evaluate the air quality impacts. Although a facility or project may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

2.2. PSD Applicability for Project

The project will authorize the replacement of the current water sprays with a dry fogging dust suppression system. The replacement is expected to result in the same or better level of treatment of PM emissions, therefore, there is no expected increase in emissions. The project will not cause or authorize any increases in emissions nor change the allowable capacity of the units. Therefore, this project is not subject to PSD preconstruction review.

3. DEPARTMENT REVIEW

3.1. Applicant's Request

Seminole Electric Cooperative, Inc. (SECI) requested an air construction (AC) permit, in accordance with Rule 62-210.300, F.A.C. to have a dry fogging dust suppression system added to the existing coal handling system. The new system will replace the existing water spray system currently being used. The new system will provide better fugitive dust control and provide a safer work environment. SECI requested that this request be included as a part of the concurrent Title V air operation permit renewal application currently being processed by the Department.

3.2. Department's Review

The Department's review of the applicant's request is provided here.

Water sprays are mentioned in the current Title V air operation permit, Permit No. 1070025-021-AV, in Subsection III.B., of the permit.

For ease of reference, an excerpt from Permit No. 1070025-021-AV, Subsection III.B., first paragraph which is part of the emission unit's description shows where water sprays are referenced:

> "… ***Water sprays {emphasis added}***, full enclosures or partial enclosures are also utilized as appropriate. …"

The Department's review does not find water sprays to be either required or specified in an underlying AC and/or PSD permit.

Rule 62-210.300(1)(a), F.A.C., requires an AC permit for new air pollution control equipment. The proposed dry fogging dust suppression system is considered to be air pollution control equipment, therefore, an AC permit is required.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state rules and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions.

Mr. Scott M. Sheplak, P.E. is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting him by telephone at 850/717-9074 or by e-mail at scott.sheplak@dep.state.fl.us in the Department's Office of Permitting and Compliance at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.