TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

City of Gainesville, Gainesville Regional Utilities
P.O. Box 147117 (AI36)
Gainesville, Florida 32614-7117

Deerhaven Generating Station
Facility ID No. 0010006

PROJECT

Project No. 0010006-016-AC
Application for Minor Source Air Construction Permit
Unit 2 Annual Sulfur Dioxide Emission Cap

COUNTY

Alachua County, Florida

PERMITTING AUTHORITY

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

June 1, 2012

1. GENERAL PROJECT INFORMATION

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 Chapters 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 in Rule 62-204.800, F.A.C.

Facility Description and Location

The Deerhaven Generating Station is an existing steam driven electrical generating power plant predominantly fired with coal, which is categorized under Standard Industrial Classification Code No. 4911. The Deerhaven Generating Station is located in Alachua County at 10001 NW 13th Street in Gainesville, Florida. The UTM coordinates of the existing facility are Zone 17, 365.70 East and 3,292.60 North. Latitude is: 29° 45′ 30" North; and, Longitude is: 82° 23′ 13" West. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to Ambient Air Quality Standards (AAQS).

Facility Regulatory Categories

- The facility is a major source of hazardous air pollutants (HAP).
- The facility operates units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The 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.

Project Description

The requested revision is for a reduction to the annual sulfur dioxide (SO_2) emission cap for Deerhaven Generating Station Unit 2 to ensure that Unit 2 will be exempt from the Reasonable Progress (RP) requirements of the Regional Haze Rule.

Processing Schedule

5/25/12 Received the application for a minor source air pollution construction permit, application deemed complete upon receipt.

2. PSD APPLICABILITY

The requested revision is to reduce the sulfur dioxide (SO_2) emission cap for Deerhaven Generating Station Unit 2 to ensure that Unit 2 will be exempt from the Reasonable Progress (RP) requirements of the Regional Haze Rule. There are no other changes requested, nor are there any increases in emissions or operating capacity authorized. As such, a PSD review is not applicable.

3. DEPARTMENT REVIEW

Permit No. 0010006-005-AC authorized the installation of air pollution control devices, including a circulating dry scrubber (CDS) system for Unit 2 to reduce emissions of SO_2 and SO_3 to provide full flexibility in implementing the federal cap and trade program under the Clean Air Interstate Rule (CAIR). Permit No. 0010006-012-AC established an annual SO_2 emissions cap for Unit 2 of 8,005 tons per year in order to allow for the addition of a biomass–fired unit at the facility without triggering a PSD review. GRU has determined that there is additional scrubbing capacity available within the CDS and is committing to operating it at a higher level of control in order to assure that Unit 2 will not be subject to the reasonable progress requirements of the Regional Haze State Implementation Plan. If an applicant can show that the ratio (Q/D) of their SO_2 annual emissions (Q in tons) divided by the distance (D in kilometers) from a Class 1 area is less than 50, then the emissions source is considered to not have a significant impact on the Class 1 area and is not subject to the reasonable progress requirements of the Regional Haze State Implementation Plan. The nearest Class 1 area to the Deerhaven Generating Station is the Okefenokee National Wildlife Refuge, which is 112.2 kilometers away. With an annual SO_2 emissions cap of 5,500 tons, the Q/D ratio is 5,500/112.2 = 49.0 tons/yr/km. Based on this request, Specific Condition 3.2.b. of permit No. 0010006-012-AC will be changed to reduce the annual SO_2 emissions cap from 8,005 tons per year to 5,500 tons per year. This reduced emissions cap must be complied with upon the issuance date of this permit.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state 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 an increase in any emissions. Jon Holtom, 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 the project engineer at the Department's Office of Permitting and Compliance at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.