Title V Air Operation Permit Renewal
Permit No. 0110351-005-AV

APPLICANT

The applicant for this project is the South Florida Water Management District. The applicant's responsible official and mailing address are: Mr. Michael Gallagher, Bureau Chief, Field Operations South, South Florida Water Management District, S-8/G-404 Pump Station, located on the L-5 Canal, L-4 Canal and L-23 Canal junction, 15 miles west of Hwy. 27 along Palm Beach/Broward County line.

FACILITY DESCRIPTION

The South Florida Water Management District (SFWMD) operates the co-located flood control Pump Stations Nos. S-8 & G-404 located at L-5 Canal, L-4 Canal and L-23 Canal junction, 15 miles west of Hwy. 27 along Palm Beach/Broward County line. The SFWMD acquired ownership of the station in February 9, 1962 from the U.S Army Corps of Engineers. At that time, the facility was never required to obtain an air pollution construction or operation permit because there were no applicable requirements and the primary function was emergency flood control.

Pump Station S-8 utilizes four (4) internal combustion 800 hp diesel-fired engines driving four (4) water pumps and was built prior to PSD regulations and is therefore exempt. Pump Station G-404 utilizes three (3) internal combustion 440 hp diesel-fired engines driving three (3) water pumps. The engines in Pump Station G-404 are limited to using 250,000 gallons of diesel fuel in a 12-month period in order to escape PSD regulations.

In 2012-2013, the 7 pump engines were retrofitted with add-on diesel oxidation catalyst pollution control systems (see permit No. 0110351-004-AC). The catalyst units were installed in response to the modification of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines (RICE) in 40 CFR part 63, subpart ZZZZ. The federal rule requires emissions of carbon monoxides (CO) to be limited to 23 ppm or a reduction by 70 percent in the exhaust of subject sources. The four 800 hp engines at pump station No. S-8 were also required to have Continuous Parameter Monitoring Systems (CPMS) to monitor both the temperature and pressure drop across the catalyst units. The S-8 pump station also includes two 380 hp diesel emergency generators and one 45 hp diesel non-emergency air compressor/vacuum pump which are also regulated by NESHAP (40 CFR Part 63, Subpart ZZZZ). Two 25,000 gallon diesel fuel tanks, are unregulated.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

PROJECT DESCRIPTION

The purpose of this permitting project is to renew the existing Title V permit for the above referenced facility and to incorporate the new conditions from the construction permit 0110351-004-AC and the new requirements from 40 CFR Part 63, Subpart ZZZZ.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

0110351-003-AV issued **November 9, 2009**
0110351-004-AC issued **May 10, 2012**
Application for a Title V Air Operation Permit Renewal received **March 6, 2014**
Application for a combined Air Construction and Air Operation Permit received **July 8, 2014**

PRIMARY REGULATORY REQUIREMENTS

Based on the Title V Air Operation Permit Renewal application received by the Department of Environmental Protection on March 6, 2014:

Title III: The facility is not identified as a major source of hazardous air pollutants (HAP).

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is not a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility does not operate units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility does operate units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

CAIR: The facility is not subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) does not apply to any of the units at the facility.

PROJECT REVIEW

This permit renewal adds Emission Unit EU005, a new 5 kw emergency generator at G-404, and also incorporates the new conditions in the air construction permit 0110351-004-AC, and also the new requirements from 40 CFR Part 63, Subpart ZZZZ, which elevated the emergency generators and the air compressor engine from unregulated to regulated status. Thus these emission units were assigned formal emission unit numbers. The following summarizes the changes for each emissions unit:

EU001 - four 800 hp diesel fired pumps at S-8: Changes include emission limitations for Carbon Monoxide (CO), requirements for monitoring and maintenance of the engines and catalysts as well as the CPMS (for catalyst temperature and pressure drop) record keeping, periodic performance testing, and reporting.

EU002 - three 440 hp diesel fired pumps at G-404: Changes include emission limitations for CO, requirements for monitoring and maintenance of the engines and catalysts, record keeping, and reporting.

EU003 – two 280 hp diesel fired emergency generators at S-8: This unit is now regulated under 40 CFR Part 63, Subpart ZZZZ, which requires an hour meter if one does not exist, limitations on non-emergency use, regular maintenance and recordkeeping of maintenance.

EU004 – one 45 hp diesel fired compressor/vacuum pump at S-8: This unit is now regulated under 40 CFR Part 63, Subpart ZZZZ which requires regular maintenance and recordkeeping of maintenance.

EU005 – one new 11.1 max hp diesel fired 5 kw emergency generator at G-404. This unit will be Certified Tier 4 and regulated by 40 CFR Part 63 Subpart ZZZZ which requires the engine to comply with 40 CFR Part 63 Subpart IIII, which requires regular maintenance and recordkeeping of maintenance.

CONCLUSION

This project renews Title V air operation permit No. 0110351-003-AV, which was issued on November 9, 2009. This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.