Title V Air Operation Permit Renewal and Revision
Permit No. 0250600-008-AV

## APPLICANT

The applicant for this project is Miami-Dade Water and Sewer Department. The applicant's responsible official and mailing address are: Mr. Rafael A. Terrero, Assistant Director - Water System Operations, Miami-Dade Water and Sewer Department, North District Wastewater Treatment Plant, P.O. Box 330316, Miami, Florida 33233-0316.

## FACILITY DESCRIPTION

The applicant operates the North District Wastewater Treatment Plant, which is located at 2575 NE 156th Street, North Miami, Florida.

This facility is a Publicly Owned Treatment Works (POTW), and consists of a wastewater treatment plant for commercial and residential sewage. The wastewater processes (emissions unit 001), includes primary clarification, oxygenation tanks, and secondary clarifiers. All liquid process units are covered and vented to an odor control scrubber units for reduction of hydrogen sulfide ($H_2S$), and odors. The scrubbers do not constitute an air pollution control device; their design is not to reduce VOCs. All sludge generated at the facility is transported via pipeline to the central District Wastewater Treatment Plant for treatment

The maximum process rate of 49,275 million gallons per year is based on a design treatment capacity of 135 million gallons per day on an annual average basis. The facility is currently permitted for 120 million gallons per day on an annual average basis.

Six standby diesel generators supply electricity to the plant in the event of power loss or power curtailment from the Florida Power and Light Co. Five of these emissions units are manufactured by General Motors Electro-Motive Diesel Division; four of them are model 20-645E4B, and the fifth one is a model 16-710G4A. The sixth generator is a Caterpillar unit, model 3612. These diesel generators operate under a fuel limitation of 700,000 gallons in any consecutive 12-month period to escape PSD for NOX. New federal regulations, 40 CFR 63 Subpart ZZZZ requires that these units install oxidation catalysts, among other requirements. This renewal permit will also incorporate the conditions of these new federal requirements.

Each of the six emergency diesel generators are started using highly compressed starting air pressure generated by electrically driven starting air compressor units, and in the event of an extreme emergency or dead plant black out, one of these electrically driven starting air compressor units can be driven by a small 37 hp diesel engine unit. This diesel engine is also regulated by the new federal regulation 40 CFR 63 Subpart ZZZZ. Under this new rule, the engine is considered a "Black Start" engine and only requires maintenance and monitoring.

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 and revise the existing Title V permit for the above referenced facility.

## PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Renewal and Revision received **February 20, 2014**
Additional Information (Compliance Plan) Request dated **March 28, 2014**
Request for time extension to respond to RAI No. 1 received **April 24, 2014**
Additional Information Response received **October 10, 2014**

## PRIMARY REGULATORY REQUIREMENTS

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.

## PROJECT REVIEW

This permit renews the existing Title V permit and also incorporates the provisions of the new federal rule 40 CFR 40 Subpart ZZZZ for Reciprocating Internal Combustion Engines (RICE). The Permit also places a previously unregulated emergency black-start RICE as a regulated Emission Unit (EU009). The Permit includes a Compliance Plan (See Appendix CP) for the installation of control devices as required by Subpart ZZZZ onto the RICE equipment.

## CONCLUSION

This project is for the Renewal and Revision of the Title V air operation permit No. 0250600-007-AV, which was issued on October 20, 2009. This Title V air operation permit renewal **and** revision is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.