

STATEMENT OF BASIS

Title V Air Operation Permit Renewal
Permit No. 1050352-015-AV

APPLICANT

The applicant for this project is Lakeland Electric. The applicant's responsible official and mailing address are: Miles Dentler, Plant Manager, City of Lakeland/Lakeland Electric, Winston Peaking Station, 3030 East Lake Parker Drive, Lakeland, Florida 33805.

FACILITY DESCRIPTION

The applicant operates the existing Winston Peaking Station, which is located in Polk County at one mile south east of the intersection of Airport Road and Old Tampa Highway, Lakeland, Florida.

This facility consists of twenty nominal 2.5-megawatt (MW) General Motors (GM) Electro Motive Division (EMD) 20-cylinder Model 645/E4B non-emergency compression ignition (CI) stationary diesel engines operating in simple cycle mode that together provide a nominal total of 50 MW (55 MW at peak load) of electrical power, one 350-kilowatt (kW) VOLVO TAD1232GE emergency diesel engine generator set, and miscellaneous insignificant emissions units and/or activities.

Each of the twenty nominal 2.5 MW diesel engines uses selective catalytic reduction (SCR) for Nitrogen Oxides (NO_x) emissions, oxidation catalyst for Carbon Monoxide (CO) emissions, and an air/fuel ratio regulator for NO_x emissions. The twenty nominal 2.5 MW diesel engines are fired on ultra-low sulfur fuel oil with a maximum sulfur content of 0.0015%. These engines are also permitted to be fired on natural gas with 6% ultra-low sulfur fuel for ignition; however, natural gas is not yet available at the site.

The VOLVO emergency diesel engine has a power rating of 514 brake horsepower (bhp) (384 kW) at 100 percent load and is also fired with ultra-low sulfur fuel oil. The associated emergency generator has a power output rating of 350 kW (514 HP). Operations for the generator are limited to emergency situations as provided in 40 CFR 63, Subpart ZZZZ.

This facility also includes miscellaneous unregulated/insignificant emissions units and/or activities.

REGULATED EMISSIONS UNIT IDENTIFICATION NUMBERS AND DESCRIPTIONS

EU No.	Brief Description
<i>Regulated Emissions Units</i>	
001-020	Twenty 2.5 MW GM EMD 20/645/E4B Non-Emergency Diesel Engines
021	One 350 kW VOLVO TAD1232GE Emergency Diesel Engine and Associated Electric Generator

APPLICABLE REGULATIONS

Based on the Title V air operation permit renewal application received on February 14, 2025, this facility is not a major source of hazardous air pollutants (HAP). The existing facility is a prevention of significant deterioration (PSD) major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table:

Regulation	EU No(s).
<i>Federal Rule Citations</i>	
40 CFR 63, Subpart A – General Provisions	001-021
40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	001-021
40 CFR 64, Compliance Assurance Monitoring	001-020
<i>State Rule Citations</i>	

STATEMENT OF BASIS

Regulation	EU No(s).
Rule 62-204.800, F.A.C. (Federal Regulations Adopted by Reference)	001-021
Rule 62-210, F.A.C. (Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms)	001-021
Rule 62-213, F.A.C. (Title V Air Operation Permits for Major Sources of Air Pollution)	001-021
Rule 62-296.320, F.A.C. (General Pollutant Emission Limiting Standards)	001-021
Rule 62-297, F.A.C. (Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures)	001-021

This facility also includes 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-mentioned facility with a concurrently processed permit No. 1050352-014-AC to change the timeline of the monthly operation summary.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Renewal received
Draft Title V permit package issued

February 14, 2025
May 9, 2025

PRIMARY REGULATORY REQUIREMENTS

Standard Industrial Classification (SIC) Code: 4911 – Electrical Generation.

North American Industry Classification System (NAICS): 221112 – Fossil Fuel.

HAP: 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.). Facility-wide potential emissions of NO_x and VOC exceed 100 tons/year.

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

CAM: Compliance Assurance Monitoring (CAM) applies to EUs 001-020. These units are subject to CAM for the regulated emissions of Nitrogen Oxide (NO_x) which are controlled by selective catalytic reduction (SCR), oxidation catalyst, and an air/fuel ratio regulator.

GHG: The facility is not identified as a major source of greenhouse gas (GHG) pollutants.

PROJECT REVIEW

The submitted application includes a request to revise the timeline of the monthly summary operations for EUs 001-020. Changes to the permit made as part of this renewal are shown in ~~strike through~~ format for deletions and in double underline format for additions. For ease of identification, all changes have also been **highlighted in yellow** within the permit document.

- Changes throughout the Title V air operation permit that do not alter the intent or underlying language of any permit conditions include:
 - The renewal permit is based on the Department's updated formats for a Title V air operation permit.
 - Updated the permit rule citations and identified acronyms.
 - Updated facility and emissions unit descriptions.

STATEMENT OF BASIS

Section III, Subsection A, Emissions Units 001-020

1. Deleted **A.24** (*NO_x and Ammonia Initial Tests Required*) as being obsolete because requirement is no longer applicable (initial requirement satisfied).
2. Deleted **A.27** (*CO Initial Compliance Testing- Establishing Operating Limits*) as being obsolete because requirement is no longer applicable (initial requirement satisfied).
3. Deleted **A.31** (*Initial Notification of CO Compliance Status*) as being obsolete because requirement is no longer applicable (initial requirement satisfied).
4. As requested by applicant, revised previous Condition **A.36** (*Monthly Operations Summary*) by extending the timeline (for having the EU 001 – 020 operating data populated) from the fifth calendar to the fifteenth (15th) calendar day of each month. Condition A.36 is revised to Condition A.34 as follows:

A.34. A.36—*Monthly Operations Summary*. By the ~~fifth~~ **fifteenth (15th)** calendar day of each month, the permittee shall record the 12-month hours of operation of the internal combustion engines, 12-month emission totals for NO_x (see Specific Condition **Error! Reference source not found.**), and amount of the ultra-low sulfur fuel oil and natural gas fired in the internal combustion engines. The information shall be recorded in a written or electronic log and shall be available for inspection and/or printing within at least one day of a request from the Compliance Authority. **[Rules 62-4.070(1) and (3) & 62-4.160(15), F.A.C.; and, Permit Nos. 1050352-001-AC, & 1050352-004-AC & Application No. 1050352-014-AC.]**

CONCLUSION

This project renews Title V Air Operation Permit No. 1050352-010-AV, which was effective on September 28, 2020. This initial Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-213, F.A.C.