Title V Air Operation Permit Revision
Permit No. 1050352-008-AV
Revision of Title V Air Operation Permit No. 1050352-005-AV

APPLICANT

The applicant for this project is Lakeland Electric. The applicant's responsible official and mailing address are: Tony Candales, Assistant General Manager - Production, Lakeland Electric, Winston Peaking Station, 501 E. Lemon Street, Lakeland, FL 33801.

FACILITY DESCRIPTION

The applicant operates the Winston Peaking Station, which is located in Polk County at 1200 Airport Road, Lakeland, Florida.

This facility consists of twenty nominal 2.5-MW GM EMD 20/645/E4B diesel engines, one 350-kW VOLVO TAD1232GE emergency diesel engine generator set and one 294,000-gallon No. 2 fuel oil storage tank. Each of the twenty nominal 2.5 MW diesel engines uses selective catalytic reduction, oxidation catalyst, and an air/fuel ratio regulator for its emission reduction control. The GM engines are fired on No. 2 distillate fuel oil. These engines are also capable of being fired on natural gas with 6% diesel fuel for ignition; however, natural gas is not yet available at the site. The fuel oil currently contains a maximum sulfur content of 0.05 percent, but the facility is in the process of reducing the sulfur content to 0.0015% in order to comply with the requirements of 40 CFR 63, Subpart ZZZZ. These twenty nominal 2.5 MW units are designed for peaking service and are capable of providing a nominal 50 MW (55-MW at peak load) of electrical power. The existing VOLVO emergency diesel generator set was categorically exempt from the requirement to obtain an air construction permit. However it is not exempt from Title V permitting requirements due to the requirements of 40 CFR Part 63, Subpart ZZZZ - National Emission Standards of Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE). The emergency generator has the potential to emit (PTE) about 10 tons per year of NO_X.

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

PROJECT DESCRIPTION

The purpose of this permitting project is to revise the existing Title V permit for the above referenced facility and to incorporate the requirements and limitations established in Construction Permit Project No. 1050352-007-AC.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Initial Title V Air Operation Permit issued 03/17/2005
Title V Air Operation Permit Renewal 1050352-005-AV, effective date 05/12/2011
Title V Air Operation Permit Revision 1050352-008-AV, effective date: Pending

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 an existing synthetic non-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 emission units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility operates emission units (E.U. Nos. 001-021) subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63, Subpart ZZZZ.

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

PROPOSED

CAM: Compliance Assurance Monitoring (CAM) applies to Units 001-020. Emission Units 001-020 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.

PROJECT REVIEW

The following changes/revisions were made as part of this revision:

1. Table of Content updates for Section III and Section IV Appendices (list of new applicable Appendices and deletion of obsolete Appendices).
2. Permit placard page: Deletion of "Referenced attachments made part of the permit" entire paragraph.
3. Revision of descriptive language of "Facility Description" and "Relevant Documents".
4. Deletion of the entire Section II - Facility wide Conditions and replaced with updated version of Facility-wide Conditions for this facility.
5. Deletion of the Permitting Note in Section III, Subsection A. (page 6).
6. Deletion of the following conditions in Section III, Subsection A of permit 1050352-005-AV. These conditions are part of Appendices RR, and TR, which are now part of the revised Title V permit 1050352-008-AV. The following conditions have been deleted from the body of revised permit No. 1050352-008-AV:
    - A.17. Required Number of Test Runs.
    - A.18. Operating Rate During Testing.
    - A.19. Calculation of Emission Rate.
    - A.20. Applicable Test Procedures.
    - A.21. Determination of Process Variables.
    - A.22. Required Stack Sampling Facilities.
    - A.23. Frequency of Compliance Tests.
    - A.25. Emissions Performance Test Reports.
    - A.28. Excess Emissions Report.
    - A.29. Test Reports.
7. Complete renumbering of existing Conditions in Section III - Subsection A due to deletions as explained in item 6 above; and, addition of new Conditions to include applicable requirements of 40 CFR 63, Subpart ZZZZ for the 20 GM engines.
8. Addition and revision of Section III - Conditions B.1 to B.10 in Section III to include applicable requirements of 40 CFR 63, Subpart ZZZZ for the VOLVO engine.
9. Deletion of Section III, Subsection C - Common Conditions, since the applicable requirements of 40 CFR 63, Subpart ZZZZ are now incorporated under each affected emission units (001-021), Subsections A and B.
10. Deletion of Appendices related to the 40 CFR 63, Subpart ZZZZ since the applicable requirements are part of the body of the permit.
11. Replacement of the Appendix CAM General Conditions with the latest version.
12. Inclusion of a new Appendix CP-2, Compliance Plan for the 20 GM engines to provide enforceable requirements during the self-imposed emergency operation period.
13. Addition of the most recent versions of Appendices RR, TR and TV.

PROPOSED

14. Addition of Tables: Table 1, Summary of Air Pollutants Emission Standards and Table 2, Summary of Compliance Requirements in the Appendices - Section IV.
15. Consolidation of all the existing and new Appendices and attachments in one single document.
16. Incorporation of updated permit conditions in Section II and III based on requirements established in construction permit No. 1050352-007-AC for Units 001-020 (issued concurrently with this Title V permit revision):
    - Revision of the Hours of Operation, Condition **A.4 (**before **A.3**) in Section III, to reflect the emergency and non-emergency operation.
    - Revision of the Nitrogen Oxides Condition No.**A.7** (before **A.5**) in Section III, to reflect updated NO_X cap for the 20 GM engines.
    - Incorporation of the 40 CFR 63 compliance test waiver following reclassification of the 20 engines to non-emergency status.

CONCLUSION

This project revises Title V air operation permit No. 1050352-005-AV which was issued on 05/12/2011. This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, 62-213, F.A.C.

PROPOSED