

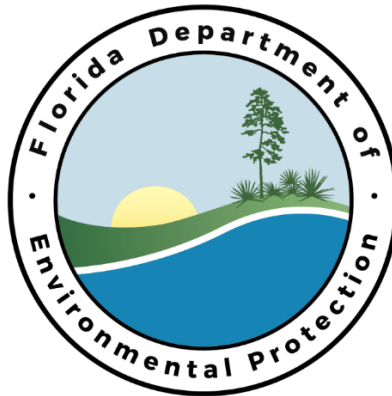
# Lakeland Electric Winston Peaking Station

Facility ID No. 1050352  
Polk County

## Title V Air Operation Permit Renewal

**Permit Project No. 1050352-009-AV**

(Renewal of Title V Air Operation Permit No. 1050352-008-AV)



### **Permitting Authority**

State of Florida  
Department of Environmental Protection  
Division of Air Resource Management  
Office of Permitting and Compliance  
2600 Blair Stone Road  
Mail Station #5505  
Tallahassee, Florida 32399-2400  
Telephone: (850) 717-9000  
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### **Compliance Authority**

State of Florida  
Department of Environmental Protection  
Southwest District Office  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926  
Telephone: 813-632-7600  
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## Title V Air Operation Permit Renewal

Permit No. 1050352-009-AV

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## Florida Department of Environmental Protection

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### **PERMITTEE:**

Lakeland Electric  
501 E. Lemon Street  
Lakeland, FL 33801

Permit No. 1050352-009-AV  
Winston Peaking Station  
Facility ID No. 1050352  
Title V Air Operation Permit Renewal

The purpose of this permit is to renew Title V air operation permit for the above referenced facility. This existing Winston Peaking Station is located in Polk County at 1200 Airport Road, Lakeland. UTM Coordinates are Zone 17, 400.2 km East and 3100.6 km North. Latitude is: 28°01'45" North; and, Longitude is: 82°00'53" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

1050352-009-AV Effective Date: **January 20, 2016**  
Renewal Application Due Date: **June 8, 2020**  
Expiration Date: **January 19, 2021**

*For:*

Jeffery F. Koerner, Deputy Director  
Division of Air Resource Management

JFK/dlr/jh

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## SECTION I. FACILITY INFORMATION.

### **Subsection A. Facility Description.**

This facility consists of twenty nominal 2.5-MW GM EMD 20/645/E4B non-emergency compression ignition 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-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<sub>x</sub>) emissions, oxidation catalyst for Carbon Monoxide (CO) emissions, and an air/fuel ratio regulator for NO<sub>x</sub> 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 HP (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 for in 40 CFR 63, Subpart ZZZZ.

Based on the Title V Air Operation Permit Renewal application received 09/17/2015, this facility is a major source of air pollutants, other than Hazardous Air Pollutants (HAPs). This facility is classified as a synthetic minor prevention of significant deterioration (PSD) facility. This facility is subject to the Maximum Achievable Control Technology (MACT) standards of 40 CFR 63, Subpart A – General Provisions and Subpart ZZZZ – National Emission Standards of Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE). This facility is not subject to Title IV (Acid Rain Program). Each of the twenty diesel engines is subject to CAM (Compliance Assurance Monitoring) standards of 40 CFR 64.

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### **Subsection B. Summary of Emissions Units.**

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

Also included in this permit are miscellaneous insignificant emissions units and/or activities (see Appendix I, List of Insignificant Emissions Units and/or Activities).

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## SECTION I. FACILITY INFORMATION.

### **Subsection C. Applicable Regulations.**

Based on the Title V air operation permit renewal application received September 17, 2015, this facility is not a major source of hazardous air pollutants (HAP). The existing facility has an emissions cap for NO<sub>x</sub> emissions and is classified as a synthetic minor prevention of significant deterioration (PSD) facility 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>	
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

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## SECTION II. FACILITY-WIDE CONDITIONS.

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**The following conditions apply facility-wide to all emission units and activities:**

**FW1. Appendices.** The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

### **Emissions and Controls**

**FW2. Not federally Enforceable. Objectionable Odor Prohibited.** No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An “objectionable odor” means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

**FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions.** The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]

*{Permitting Note: Nothing is deemed necessary and ordered at this time.}*

**FW4. General Visible Emissions.** No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b), F.A.C.]

**FW5. Unconfined Particulate Matter.** No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- a. Paving and maintenance of roads, parking areas and yards.
- b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
- c. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
- d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent re-entrainment, and from buildings or work areas to prevent particulate from becoming airborne.
- e. Landscaping or planting of vegetation.
- f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
- g. Confining abrasive blasting where possible.
- h. Enclosure or covering of conveyor systems.

[Rule 62-296.320(4)(c), F.A.C.; Permit No. 1050352-001-AC; and, proposed by the applicant in Title V air operation permit renewal application received September 17, 2015.]

### **Annual Reports and Fees**

See Appendix RR, Facility-wide Reporting Requirements for additional details.

**FW6. Electronic Annual Operating Report and Title V Annual Emissions Fees.** The information required by the Annual Operating Report for Air Pollutant Emitting Facility [Including Title V Source Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to the Department of Environmental Protection’s Division of Air Resource Management. Each Title V source shall submit the annual operating report using the DEP’s Electronic Annual Operating Report

## SECTION II. FACILITY-WIDE CONDITIONS.

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(EAOR) software, unless the Title V source claims a technical or financial hardship by submitting DEP Form No. 62-210.900(5) to the DEP Division of Air Resource Management instead of using the reporting software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. Each Title V source must pay between January 15 and April 1 of each year an annual emissions fee in an amount determined as set forth in subsection 62-213.205(1), F.A.C. The annual fee shall only apply to those regulated pollutants, except carbon monoxide and greenhouse gases, for which an allowable numeric emission-limiting standard is specified in the source's most recent construction permit or operation permit. Upon completing the required EAOR entries, the EAOR Title V Fee Invoice can be printed by the source showing which of the reported emissions are subject to the fee and the total Title V Annual Emissions Fee that is due. The submission of the annual Title V emissions fee payment is also due (postmarked) by April 1<sup>st</sup> of each year. A copy of the system-generated EAOR Title V Annual Emissions Fee Invoice and the indicated total fee shall be submitted to: **Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070**. Additional information is available by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: <http://www.dep.state.fl.us/air/emission/tvfee.htm>. [Rules 62-210.370(3), 62-210.900 & 62-213.205, F.A.C.; and, §403.0872(11), Florida Statutes (2013)]

*{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: <http://www.dep.state.fl.us/air/emission/eaor>. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at [eaor@dep.state.fl.us](mailto:eaor@dep.state.fl.us).}*

*{Permitting Note: The Title V Annual Emissions Fee form (DEP Form No. 62-213.900(1)) has been repealed. A separate Annual Emissions Fee form is no longer required to be submitted by March 1st each year.}*

**FW7. Annual Statement of Compliance.** The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit and to the US. EPA at the address shown below within 60 days after the end of each calendar year during which the Title V air operation permit was effective. (See also Appendix RR, Conditions RR1 and RR7.) [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

U.S. Environmental Protection Agency, Region 4  
Atlanta Federal Center  
61 Forsyth Street, SW  
Atlanta, Georgia 30303  
Attn: Air Enforcement Branch

**FW8. Prevention of Accidental Releases (Section 112(r) of CAA).** If, and when, the facility becomes subject to 112(r), the permittee shall:

- a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent electronically through EPA's Central Data Exchange system at the following address: <https://cdx.epa.gov>. Information on electronically submitting risk management plans using the Central Data Exchange system is available at: <http://www2.epa.gov/rmp>. The RMP Reporting Center can be contacted at: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
- b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

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### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection A. Emissions Units 001 - 020

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
001-020	Twenty 2.5 Megawatt GM EMD 20/645/E4B Non-Emergency Diesel Engines

EUs 001-020 consist of twenty GM EMD 20/645/E4B non-emergency compression ignition stationary diesel engines operating in simple cycle mode and twenty associated Baylor-Stallion Model G8558RNVelectric generators designed to provide a nominal total 50 MW (55 MW at peak load) of electric power.

The startup date for these EUs was January 2002. Maximum heat input rate is 28 MMBtu/hr/engine (560 MMBtu/hr for all engines) at peak load, and 25 MMBtu/hr/engine firing ultra-low sulfur fuel oil at 100% load. Maximum operating schedule is 8,760 hr/yr. for a single engine. These EUs are permitted to burn both ultra-low sulfur fuel oil and natural gas (with 6 percent diesel fuel for ignition). Each of the twenty engines can operate as a single emission unit or in combination. The operating hours during any 12-month period are limited to 41,000 engine-hours for 20 engines at 100% load burning ultra-low sulfur fuel oil, 17,520 engine-hours at peak load when burning ultra-low sulfur fuel oil, and 85,000 engine-hours at 100% load when burning natural gas. Note that natural gas is currently not available at the facility. Each 2.5 MW unit exhausts through a single stack of 34 feet stack height and 2.3 feet exit diameter. Actual volumetric flow rate is 21,350 acfm, and exit temperature is 740° F for natural gas and 635° F for fuel oil.

NO<sub>x</sub> emissions from EUs 001-020 are controlled by selective catalytic reduction and air/fuel ratio regulator; CO emissions are controlled by oxidation catalyst. These EUs are subject to 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines adopted in Rule 62-204.800(11)(b), F.A.C., and 40 CFR 64 - Compliance Assurance Monitoring, as detailed in the attached Appendix CAM.

*{Permitting Notes: The facility is an existing synthetic minor Prevention of Significant Deterioration (PSD)-source of air pollution in accordance with Rule 62-212.400, F.A.C. These emissions units are not regulated under Acid Rain, Phase II. This permit section addresses existing non- emergency stationary CI RICE greater than 500 HP, with a displacement more than 10 liters per cylinder and less than 30 liters/cylinder, that are located at an Area Source of HAP and that commenced construction before 6/12/2006. If any of these RICE are modified or reconstructed after 7/11/2005, the NSPS 40 CFR 60, Subpart IIII, will then apply.}* [Link to 40 CFR 63, Subpart ZZZZ](#)

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#### **Essential Potential to Emit (PTE) Parameters**

- A.1. Permitted Capacity.** The heat input to each internal combustion engine from firing ultra-low sulfur fuel oil shall not exceed 25 MMBtu per hour at 100 % load or 28 MMBtu per hour at peak load. The heat input to each internal combustion engine from firing natural gas shall not exceed 29 MMBtu per hour at 100% load. [Rules 62-4.160(2) & 62-210.200(PTE), F.A.C.; and, Permit No. 1050352-001-AC]
- A.2. Methods of Operation - (i.e. Fuels).** Only ultra-low sulfur fuel oil and natural gas can be fired in the internal combustion engines. The permittee shall demonstrate compliance with the fuel oil sulfur limit by keeping the records specified in this permit.
- Natural Gas.** The heat input from natural gas shall not exceed 29 MMBtu/hr. Firing of natural gas requires 6% diesel fuel for ignition.
  - Fuel Oil.** The heat input from No. 2 fuel oil shall not exceed 25 MMBtu/hr at 100 % load or 28 MMBtu/hr at peak load.
    - The sulfur content shall not exceed = 15 ppm = 0.0015% by weight (ultra-low sulfur).
    - The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
- [Rule 62-213.440(1)(b), F.A.C.; 40 CFR 63.6604(a), 40 CFR 80.510(b); and, Permit No. 1050352-001-AC]



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## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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### Subsection A. Emissions Units 001 - 020

#### A.3. Hours of Operation.

- a. *Normal Operation.* The twenty internal combustion engines shall operate no more than 41,000 engine-hours when firing fuel oil at 100% load, or 17,520 engine-hours at peak load or 85,000 engine-hours when firing natural gas during any consecutive 12-month period. If multiple fuels are used during a 12-month period, the allowable hours for each fuel type shall be prorated so as not to exceed the NO<sub>x</sub> emissions cap specified in Specific Condition A.6. The permittee shall install, calibrate, operate and maintain a monitoring system to measure the hours of operation for each fuel on each internal combustion engine. Compliance with the NO<sub>x</sub> cap for the 20 engines shall be demonstrated using the equation contained in Specific Condition A.14.
- b. *Engine Startup Operation.* The owner or operator must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the CO emission limitations in Specific Condition A.9. apply. [40 CFR 63.6625(h)]

[Rule 62-4.160(2), F.A.C.; and, Permit Nos. 1050352-001-AC, 1050352-004-AC & 1050352-007-AC, Specific Condition 2.]

- A.4. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(3), F.A.C.]

#### Control Technology

- A.5. NO<sub>x</sub> and CO Control Technologies. The following are the control technologies established by permit No. 1050352-001-AC to avoid PSD regulations during the construction/installation of the 20 GM engines;

- a. Selective Catalytic Reduction (SCR) to control NO<sub>x</sub> emissions.
- b. Air/fuel ratio regulator to control NO<sub>x</sub> emissions.
- c. Oxidation Catalyst (OC) to control CO emissions.

[Rules 62-212.400 & 62-4.070(3), F.A.C.; and, Permit No. 1050353-001-AC]

*{Permitting Note: NO<sub>x</sub> allowable emissions are under 250 TPY as specified in Condition A.6.; and, CO potential emissions were estimated at 191.1 TPY during the PSD evaluation project in 2001.}*

#### Emission Limitations and Standards

*{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}*

Unless otherwise specified, the averaging times for Specific Conditions A.6. - A.9. are based on the specified averaging time of the applicable test method.

- A.6. NO<sub>x</sub> Emissions. Nitrogen oxide emissions from each internal combustion engine shall not exceed 13.9 lb/hr while in peak load operation firing ultra-low sulfur fuel oil, 11.6 lb/hr while in base load operation firing ultra-low sulfur fuel oil, or 5.58 lb/hr in base load operation firing natural gas. Annual emissions of NO<sub>x</sub> in TPY from these emission units shall be calculated by using the allowable NO<sub>x</sub> emission rate in lb/hr for each mode of operation multiplied by the total operating hours for each mode of operation for the 20 engines divided by 2,000. (See Specific Condition A.14.). The NO<sub>x</sub> emissions from the 20 engines shall not exceed 237.8 TPY, based upon a consecutive 12-month period. [Permit Nos. 1050352-001-AC, Specific Condition 6., 1050352-004-AC, Specific Condition 2. & 1050352-007-AC, Specific Condition 1.]

- A.7. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.; and, Permit No. 1050352-001-AC]

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection A. Emissions Units 001 - 020

- A.8. Ammonia Emissions.** The concentration of ammonia in the exhaust gas from each internal combustion engine shall not exceed 10 ppmvd @15% O<sub>2</sub> while firing natural gas or fuel oil. [Rule 62-4.070, F.A.C.; and, Permit No. 1050352-001-AC, Specific Condition 8.]
- A.9. CO Emissions.** The owner or operator must:
- Limit the concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O<sub>2</sub>; or
  - Reduce CO emissions by 70 percent or more.
- [40 CFR 63.6603(a) and Table 2d of 40 CFR 63 Subpart ZZZZ, paragraph 3.]

#### **Excess Emissions**

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

- A.10. Excess Emissions Allowed.** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C., and Permit No. 1050352-001-AC]
- A.11. Excess Emissions Prohibited.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited. [Rule 62-210.700(4), F.A.C., and Permit No. 1050352-001-AC]

#### **Operating Requirements**

- A.12. Operating Limitations for the Oxidation Catalyst.** You must meet the following operation limitation, except during periods of startup:
- Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test; and
  - Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1,350 °F. Note: Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.
- [40 CFR 63.6603(a) and Table 2b, paragraph 2.]
- A.13. Crankcase Ventilation System Operation.** If your engine is not equipped with a closed crankcase ventilation system, you must comply with either paragraph **a.** or **b.** below.
- Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or
  - Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.
- You must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. [40 CFR 63.6625(g)]

#### **Compliance Requirements**

- A.14. NO<sub>x</sub> Compliance Assurance Demonstration Method.** Using the information required by Specific Conditions **A.6.** & **A.35.**, compliance with the 12-month NO<sub>x</sub> emissions limit for the 20 engines shall be demonstrated by using the following equation:

$$[(X * 11.6 \text{ lbs/hr}) + (Y * 13.9 \text{ lbs/hr}) + (Z * 5.6 \text{ lbs/hr})] / (2,000 \text{ lbs/ton}) = \text{Calculated tons of NO}_x.$$

Where:

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### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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#### Subsection A. Emissions Units 001 - 020

X = Documented hours per year firing oil at 100% load (total of all 20 engines)

Y = Documented hours per year firing oil at peak load (total of all 20 engines)

Z = Documented hours per year firing natural gas at 100% load (total of all 20 engines)

[Rule 62-4.070(1), F.A.C., and Permit No. 1050352-004-AC]

**A.15. Continuous Compliance.** Each unit shall be in compliance with the emission limitations and operating limitations and other requirements in this permit at all times. [40 CFR 63.6605(a)]

**A.16. Operation and Maintenance of Equipment.** At all times the owner or operator must operate and maintain these engines, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the compliance authority which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b)]

**A.17. Continuous Compliance - Monitoring and Data.** You must monitor and collect data according to the requirements in this permit.

- a. Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- b. You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

[40 CFR 63.6635]

**A.18. Continuous Compliance with CO Emission Limitations.** You (using CPMS) must demonstrate continuous compliance with the emissions and operating limitations by:

- a. Conducting performance tests for CO every 8,760 hours or 3 years, whichever comes first, to demonstrate that the required CO percent reduction is achieved or that your emissions remain at or below the CO concentration limit; and
- b. Collecting the catalyst inlet temperature data according to Specific Condition **A.22.**; and
- c. Reducing these data to 4-hour rolling averages; and
- d. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature.
- e. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test. (See Specific Condition **A.12.a.**)

[40 CFR 63.6640(a), Table 2b, paragraph 2 and Table 6, paragraph 10.]

#### **Monitoring of Operations**

**A.19. Fuel Monitoring.** The fuel oil shall be monitored initially and annually for the sulfur content using ASTM D4294 Method (or equivalent). The permittee shall retain records of vendor certificate of fuel oil supply to have sulfur content of maximum 0.0015% by weight (see Specific Condition **A.2.**). The permittee shall also maintain daily records of fuel oil and natural gas consumption for the emission units. [Permit No. 1050352-001-AC, Specific Condition 17.]

**A.20. Time Monitoring.** The permittee shall have installed and calibrated, and shall operate and maintain a monitoring system to measure the hours of operation for each fuel on each internal combustion engine. [Rule 62-213.440, F.A.C.; and, Permit Nos. 1050352-001-AC, 1050352-004-AC & 1050352-007-AC, Specific Condition 2.]

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## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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### Subsection A. Emissions Units 001 - 020

**A.21. Ammonia Monitoring.** The flow of ammonia to the Selective Catalytic Reduction unit shall be continuously monitored while the emission unit is in operation to ensure that the ammonia flow is maintained at the same level as recorded during the most recent successful compliance test for NO<sub>x</sub> emissions. (See attached Appendix CP, Compliance Plan for Natural Gas Compliance Testing.)  
[Rules 62-4.070 & 62-213.440, F.A.C.]

**A.22. Catalyst Inlet Temperature Monitoring.** You are required to maintain and operate a continuous parameter monitoring system (CPMS) to monitor the catalyst inlet temperature. You must install, operate, and maintain the temperature CPMS in order to collect the catalyst inlet temperature data according to the requirements in paragraphs a. through f. (See also Specific Conditions **A.12.b.** and **A.18.c.** & d.)

- a. You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (1) through (5), below, and in 40 CFR 63.8(d). As specified in 40 CFR 63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (1) through (5), below, in your site-specific monitoring plan.
  - (1) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;
  - (2) Sampling interface (*e.g.*, thermocouple) location such that the monitoring system will provide representative measurements;
  - (3) Equipment performance evaluations, system accuracy audits, or other audit procedures;
  - (4) Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR 63.8(c)(1)(ii) and (c)(3); and
  - (5) Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR 63.10(c), (e)(1), and (e)(2)(i). [Link to 40 CFR 63, Subpart A](#)
- b. You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.
- c. The CPMS must collect data at least once every 15 minutes (see also 40 CFR 63.6635).
- d. For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.
- e. You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.
- f. You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

[40 CFR 63.6625(b) and Table 5, paragraph 2]

### **Test Methods and Procedures for NO<sub>x</sub>, VE and Ammonia**

**A.23. NO<sub>x</sub>, NH<sub>3</sub> and VE Performance Test Methods.** Compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.

- a. EPA Method 7 or 7E – Determination of Nitrogen Oxide Emissions from Stationary Sources;
- b. EPA Method 9 - Visual Determination of the Opacity of Emissions from Stationary Sources;
- c. Method CTM-027 or equivalent for ammonia slip (see Specific Condition **A.21.**)

No other test methods may be used for compliance testing unless prior DEP approval is received, in writing, from the Department.

[Permit No. 1050352-001-AC, Specific Condition 16.]

**A.24. NO<sub>x</sub> and NH<sub>3</sub> Initial Tests Required.** Initial performance tests to demonstrate compliance with the emission standards specified in this permit shall be conducted within 60 days after achieving at least 90% of permitted capacity, but not later than 180 days after initial operation of the emissions unit. Initial performance tests shall be conducted for NO<sub>x</sub> and visible emissions on a sample of 5 (five) randomly picked internal combustion engines for the first year. A different set of randomly picked five engines from the remaining internal combustion engines will be tested during subsequent years of operation until all of the

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## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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### Subsection A. Emissions Units 001 - 020

engines have completed the initial performance test. Initial performance test while firing natural gas shall be done when the fuel is available to the facility. Initial performance tests shall be conducted for ammonia slip for both oil and gas (when available) on only one internal combustion engine. **(See the attached Appendix CP, Compliance Plan for Natural Gas Compliance Testing.)**

[Rules 62-213.440(2), F.A.C., and Permit No. 1050352-001-AC, Specific Condition 19.]

*{Permitting Note: Initial performance tests for NO<sub>x</sub> and visible emissions have been completed for all 20 internal combustion engines on distillate oil firing. Initial performance test for ammonia slip was carried out on EU 003 on distillate oil firing. Testing on natural gas firing is pending since the facility is not yet connected to the natural gas pipeline.}*

**A.25. Annual Performance Tests.** Except as provided in Specific Condition **A.28.**, to demonstrate compliance with the emission standards specified in this permit, the permittee shall conduct annual performance tests for visible emissions on each emissions unit that operated for more than 400 hours (including during startup and shutdown) during the calendar year. Annual performance tests for NO<sub>x</sub> shall be conducted on the emissions units that emitted a cumulative total of more than 100 tons per year of NO<sub>x</sub> in the preceding 12-month period. The facility is required to keep 12-month emission totals of NO<sub>x</sub> in tons per year for each internal combustion engine during each calendar year (January 1- December 31). Tests required on an annual basis shall be conducted at least once during each calendar year.

[Rules 62-297.310(8)(a)3. & 62-297.310(8)(a)5.d., F.A.C.; and, Permit Nos. 1050352-001-AC & 1050352-004-AC]

**A.26. Tests Prior to Permit Renewal.** Prior to renewing the air operation permit, the permittee shall conduct simultaneous performance tests for NO<sub>x</sub>, visible emissions and ammonia on the internal combustion engine that operated for the most hours in the previous five years. These tests shall be conducted within the 12-month period prior to renewing the air operation permit. For pollutants required to be tested annually, the permittee may submit the most recent annual compliance test to satisfy the requirements of this provision. [Permit Nos. 1050352-001-AC & 1050352-004-AC]

### **Test Methods and Procedures for CO**

**A.27. CO Initial Compliance Testing - Establishing Operating Limitations.** During the initial performance test, the owner or operator must establish each operating limitation in Specific Condition **A.12.** [40 CFR 63.6630(b) and Table 2b, paragraph 2.]

**A.28. Initial and Subsequent Compliance Tests for CO.** An initial compliance test shall be performed to demonstrate compliance with the emissions limits in Specific Condition **A.9.** on each engine no later than 180 days after the date on which the engine resumes operation as a non-emergency engine. Subsequent compliance tests shall be performed on each engine every 8,760 hours of operation or 3 years, whichever comes first. In the event that multiple engines are returned to non-emergency operation at the same time, the testing of a maximum of 10 engines during any testing period is sufficient to demonstrate compliance for the 20 identical engines. A different set of up to 10 engines shall be tested during each subsequent test to ensure that all 20 engines are tested during each six-year cycle. [Rule 62-4.070, F.A.C.; 40 CFR 63.7(h), 63.6612, 63.6615 & Table 3; and, Permit No. 1050352-007-AC, Specific Condition 3.]

*{Permitting Note: Initial compliance testing for CO emissions for EUs 001-010 was conducted on September 8-12, 2014.}*

**A.29. Methods and Measurements to Determine O<sub>2</sub> and CO.**

- a. *Measurements to Determine O<sub>2</sub>.* The owner or operator must measure the O<sub>2</sub> at the inlet and outlet of the control device using Method 3 or 3A or 3B of 40 CFR 60, Appendix A, or ASTM Method D6522-00 (Reapproved 2005) (incorporated by reference, see 40 CFR 63.14). Measurements to determine O<sub>2</sub> concentration must be made at the same time and location as the measurements for CO concentration.
- b. *Measurements to Determine CO.* The owner or operator must measure the CO at the inlet and the outlet of the control device using ASTM Method D6522-00 (Reapproved 2005) (incorporated by reference, see

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## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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40 CFR 63.14) or Method 10 of 40 CFR 60, Appendix A. The CO concentration must be at 15 percent O<sub>2</sub>, dry basis. Method 320 of 40 CFR part 63, Appendix A, or ASTM D6348-03, may also be used. [40 CFR 63.6620(a) and Table 4, paragraph 1.]

**A.30. CO Performance Test Requirements.** The performance tests shall be conducted according to methods and requirements below.

- a. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. [40 CFR 63.6620(b)]
- b. You must conduct three separate test runs for each performance test. Each test run must last at least 1 hour. [40 CFR 63.7(e)(3) & 63.6620(d)] [Link to 40 CFR 63.7](#)
- c. You must use the Equation 1 to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 1})$$

Where:

C<sub>i</sub> = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

C<sub>o</sub> = concentration of CO, THC, or formaldehyde at the control device outlet, and

R = percent reduction of CO, THC, or formaldehyde emissions.

- d. You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO<sub>2</sub>). If pollutant concentrations are to be corrected to 15 percent oxygen and CO<sub>2</sub> concentration is measured in lieu of oxygen concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs (1) through (3), below.

- (1) Calculate the fuel-specific F<sub>o</sub> value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 2})$$

Where:

F<sub>o</sub> = Fuel factor based on the ratio of oxygen volume to the ultimate CO<sub>2</sub> volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F<sub>d</sub> = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/10<sup>6</sup> Btu).

F<sub>c</sub> = Ratio of the volume of CO<sub>2</sub> produced to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/10<sup>6</sup> Btu)

- (2) Calculate the CO<sub>2</sub> correction factor for correcting measurement data to 15 percent O<sub>2</sub>, as follows:

$$X_{CO2} = \frac{5.9}{F_o} \quad (\text{Eq. 3})$$

Where:

X<sub>CO2</sub> = CO<sub>2</sub> correction factor, percent.

5.9 = 20.9 percent O<sub>2</sub> — 15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.

- (3) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O<sub>2</sub> using CO<sub>2</sub> as follows:

$$C_{adj} = C_d \frac{X_{CO2}}{\%CO_2} \quad (\text{Eq. 4})$$

Where:

C<sub>adj</sub> = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O<sub>2</sub>.

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## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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### Subsection A. Emissions Units 001 - 020

$C_d$  = Measured concentration of CO, THC, or formaldehyde, uncorrected.

$X_{CO_2}$  = CO<sub>2</sub> correction factor, percent.

% CO<sub>2</sub> = Measured CO<sub>2</sub> concentration measured, dry basis, percent.

- e. The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

[40 CFR 63.7(e)(3) and 40 CFR 63.6620(b), (d), (e) & (i)]

**A.31. CO Compliance Demonstration.** The owner or operator using oxidation catalyst and CPMS has demonstrated initial compliance when:

- a. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction or the average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation, and
- b. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in Specific Condition **A.22.**, and
- c. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.

[40 CFR 63.6630(a) and Table 5, paragraphs 1 & 2.]

**A.32. Initial Notification of CO Compliance Status.** You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in Specific Condition **A.40.** [40 CFR 63.6630(c)]

*{Permitting Note: The CO compliance demonstration and initial notification of CO compliance status from Specific Conditions **A.31** and **A.32** shall be repeated every time the catalyst is replaced, and operating limitations from Specific Condition **A.27** shall be re-established.}*

### **Recordkeeping Requirements**

**A.33. Performance, Maintenance and Compliance Records.** Lakeland Electric must keep the following records:

- a. A copy of each notification and report that you submitted to comply with Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv).
- b. Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.
- c. Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).
- d. Records of all required maintenance performed on the air pollution control and monitoring equipment.
- e. Records of actions taken during periods of malfunction to minimize emissions in accordance with Specific Condition **A.16.**, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- f. Records described in 40 CFR 63.10(b)(2)(vi) through (xi).
- g. Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).
- h. Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 CFR 63.8(f)(6)(i), if applicable.
- i. The records required in Specific Conditions **A.12.** and **A.18.** to show continuous compliance with each emission limitation or operating requirement.

[40 CFR 63.10(b)(2)(xiv), 63.6655(a), (b), & (d)] [Link to 40 CFR 63, Subpart A](#)



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#### A.34. Record Retention.

- The owner or operator must keep records in a suitable and readily available form for expeditious reviews.
- The owner or operator must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained at the facility for at least five years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request.

[Rules 62-4.160(14) & 62-213.440(1)(b)2., F.A.C.; 40 CFR 63.6660 & 63.10(b)(1); and, Permit No. 1050352-001-AC, Specific Condition 27.]

#### A.35. Monthly Operations Summary. By the fifth 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<sub>x</sub> (see Specific Condition A.14.), and amount of the No. 2 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.

[Rule 62-4.160(15), F.A.C.; and, Permit Nos. 1050352-001-AC & 1050352-004-AC, Specific Condition 7.]

### Reporting Requirements

#### A.36. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition(s)
Excess Emissions from Malfunctions	Quarterly, if requested	RR.3.
Test Reports	45 days after completion	TR.9.
Notice of Deviations	Semiannually	A.37.
General Provisions Notices	Varied	A.38.
Notice of Performance Test	60 Days Prior to Test	A.39.
Notice of Compliance Status	60 Days After Test	A.40.

[Rule 62-213.440(1)(b), F.A.C.]

#### A.37. Notice of Deviations. You must report each instance in which you did not meet each emission limitation or operating limitation in this permit. These instances are deviations from the emission and operating limitations in this permit. These deviations must be reported according to the requirements in Specific Condition A.41. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation in Specific Condition A.9. You must also report each instance when you did not meet the requirements in Specific Condition A.43. [40 CFR 63.6640(b) & (e)]

#### A.38. Notification Requirements. You must submit all of the notifications in 40CFR 63.7(b) & (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e) & (g) and (h) that apply to you by the dates specified. [Link to 40 CFR 63, Subpart A](#) [40 CFR 63.6645(a)]

#### A.39. Notification of Intent to Conduct a Performance Test. You must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin. [40 CFR 63.7(b)(1) & 63.6645(g)]

#### A.40. Notification of Compliance Status. You must submit a Notification of Compliance Status in accordance with 40 CFR 63.9(h)(2)(ii), including the performance test results, before the close of business on the 60th day following the completion of the performance test. [40 CFR 63.10(d)(2) & 63.6645(h)]



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### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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#### Subsection A. Emissions Units 001 - 020

- A.41. Compliance Reports.** Lakeland Electric must submit semiannual Compliance Reports according to the following requirements:
- a. Each semiannual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31 and must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
  - b. The Compliance report must contain the following information:
    - (1) Company name and address.
    - (2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
    - (3) Date of report and beginning and ending dates of the reporting period.
    - (4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with Specific Condition **A.16.**, including actions taken to correct a malfunction.
    - (5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
    - (6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 40 CFR 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period. [Link to 40 CFR 63.8](#)
  - c. For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this permit, the compliance report must contain the information in paragraphs b.(1) through (4), above, and the information in paragraphs (1) and (2), below.
    - (1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.
    - (2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
  - d. For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs b.(1) through (4), above, and (1) through (12), below.
    - (1) The date and time that each malfunction started and stopped.
    - (2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
    - (3) The date, time, and duration that each CMS was out-of-control, including the information in § 63.8(c)(8).
    - (4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.
    - (5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
    - (6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
    - (7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
    - (8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.
    - (9) A brief description of the stationary RICE.
    - (10) A brief description of the CMS.

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- (11) The date of the latest CMS certification or audit.
- (12) A description of any changes in CMS, processes, or controls since the last reporting period.
- e. If you submit a compliance report pursuant to this specific condition along with, or as part of, the semiannual monitoring report required in Appendix RR, and the compliance report includes all required information concerning deviations from any emission or operating limitation, submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.
- [40 CFR 63.6650(a) - (f) and Table 7, paragraph 1.]

#### **Compliance Assurance Monitoring (CAM) Requirements**

- A.42. CAM Requirements.** These emissions units are subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(8)(c), F.A.C.
- [Rules 62-204.800 & 62-213.440(1)(b)1.a., F.A.C.; and, 40 CFR 64]

#### **General Provisions, 40 CFR 63, Subpart ZZZZ**

- A.43. Applicability of General Provisions to Subpart ZZZZ.** These engines shall comply with the following applicable requirements of 40 CFR 63 Subpart A, General Provisions, which have been adopted by reference in Rule 62-204.800(11)(d)1., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 63.5(e), 40 CFR 63.5(f), 40 CFR 63.6(g), 40 CFR 63.6(h)(9), 40 CFR 63.6(j), 40 CFR 63.13, and 40 CFR 63.14. [Link to 40 CFR 63, Subpart A - General Provisions.](#)

General Provisions Citation	Subject of Citation
§ 63.1	General applicability of the General Provisions
§ 63.2	Definitions
§ 63.3	Units and abbreviations
§ 63.4	Prohibited activities and circumvention
§ 63.5	Construction and reconstruction
§ 63.6(a)	Applicability
§ 63.6(c)(1)-(2)	Compliance dates for existing sources
§ 63.6(f)(2)	Methods for determining compliance
§ 63.6(f)(3)	Finding of compliance
§ 63.6(i)	Compliance extension procedures and criteria
§ 63.7(a)(1)-(2)	Performance test dates
§ 63.7(a)(3)	CAA section 114 authority
§ 63.7(b)(1)	Notification of performance test
§ 63.7(b)(2)	Notification of rescheduling
§ 63.7(c)	Quality assurance/test plan
§ 63.7(d)	Testing facilities
§ 63.7(e)(2)	Conduct of performance tests and reduction of data
§ 63.7(e)(3)	Test run duration
§ 63.7(g)	Performance test data analysis, recordkeeping, and reporting
§ 63.8(a)(1)	Applicability of monitoring requirements
§ 63.8(a)(2)	Performance specifications
§ 63.8(b)(1)	Monitoring

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<b>General Provisions Citation</b>	<b>Subject of Citation</b>
§ 63.8(c)(1)	Monitoring system operation and maintenance
§ 63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan
§ 63.8(c)(2)-(3)	Monitoring system installation
§ 63.8(c)(4)	Continuous monitoring system (CMS) requirements
§ 63.8(c)(6)-(8)	CMS requirements
§ 63.8(d)	CMS quality control
§ 63.8(e)	CMS performance evaluation
§ 63.8(g)	Data reduction
§ 63.9(a)	Applicability and State delegation of notification requirements
§ 63.9(b)(1)-(5)	Initial notifications
§ 63.9(d)	Notification of special compliance requirements for new sources
§ 63.9(e)	Notification of performance test
§ 63.9(g)(1)	Notification of performance evaluation
§ 63.9(h)(1)-(6)	Notification of compliance status
§ 63.9(j)	Change in previous information
§ 63.10(a)	Administrative provisions for recordkeeping/reporting
§ 63.10(b)(1)	Record retention
§ 63.10(b)(2)(vi)-(xi)	Records
§ 63.10(b)(2)(xiv)	Records of supporting documentation
§ 63.10(b)(3)	Records of applicability determination
§ 63.10(d)(1)	General reporting requirements
§ 63.10(d)(2)	Report of performance test results
§ 63.10(d)(4)	Progress reports
§ 63.10(e)(1) and (2)(i)	Additional CMS Reports
§ 63.10(e)(3)	Excess emission and parameter exceedences reports
§ 63.10(f)	Waiver for recordkeeping/reporting
§ 63.12	State authority and delegations
§ 63.13	Addresses
§ 63.14	Incorporation by reference
§ 63.15	Availability of information

[40 CFR 63.6665 and Table 8]

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### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection B. Emissions Unit 021

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
021	VOLVO TAD1232GE 350 kW Emergency Diesel Engine and Associated Electric Generator

This emissions unit consists of one Volvo TAD1232GE emergency diesel engine and associated generator set (generator model SDMO Model GS350UC). The VOLVO emergency diesel engine has a power rating of 514 brake horse power (bhp) at 100 percent load. The generator has a power output rating of 350 kW. The VOLVO diesel engine is fired with low sulfur (maximum of 0.05 weight percent of sulfur) diesel fuel. This emissions unit's initial startup date was November, 2001. This emission unit is subject to the requirements of 40 CFR 63, Subpart ZZZZ.

*{Permitting Note: This compression ignition (CI) engine is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE adopted in Rule 62.204.800(11)(b), F.A.C. This permit section addresses an "existing" stationary emergency CI RICE greater than 500 HP with a displacement less than 10 liters per cylinder that is located at an area source of HAP and that commenced construction before 6/12/2006. If the RICE is modified or reconstructed after 7/11/2005, the NSPS 40 CFR 60, Subpart IIII, will then apply. As an emergency engine, electrical power may not be supplied to the grid.}*

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#### **Essential Potential to Emit (PTE) Parameters**

**B.1. Methods of Operation - (i.e. Fuels).** No. 2 fuel oil shall be fired in the emergency diesel internal combustion engine. [Rule 62-213.440(1)(b), F.A.C.]

**B.2. Hours of Operation.**

- a. *Emergency Situations.* There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1)]
- b. *Other Situations.* You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs b.(1) through (3) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph c. counts as part of the 100 hours per calendar year allowed by this paragraphs (1) – (3). [40 CFR 63.6640(f)(2)]
  - (1) *Maintenance and Testing.* This RICE is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [40 CFR 63.6640(f)(2)(i)]
  - (2) *Emergency Demand Response.* This RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR 63.6640(f)(2)(ii)]
  - (3) *Voltage or Frequency Deviations.* This emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [40 CFR 63.6640(f)(2)(iii)]
- c. *Non-emergency Situations.* These RICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph b., above. The 50 hours per year for non-emergency situations cannot be used for peak shaving

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or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(3)]

#### **Emission Limitations and Operating Requirements**

##### **B.3. Work or Management Practice Standards.**

- a. *Oil.* Change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR 63.6603(a) & Table 2d4.a.]
- b. *Air Cleaner.* Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first. [40 CFR 63.6603(a) & Table 2d4.b.]
- c. *Hoses and Belts.* Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63.6603(a) & Table 2d4.c.]
- d. *Operation and Maintenance.* Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions or develop and follow your own maintenance plan which must provide, to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution, control practice for minimizing emissions. [40 CFR 63.6625(e), 63.6640(a) & Table 6.9.a.]
- e. *Engine Startup.* During periods of startup the owner or operator must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63.6625(h)]
- f. *Oil Analysis.* The owner or operator has the option of using oil analysis to extend the change requirement. The oil analysis must be performed at the same frequency specified for changing the oil in paragraph a., above. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent of water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent of water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(i)]

#### **Monitoring of Operations**

- B.4. Hour Meter.** The owner or operator must install, maintain and operate a non-resettable hour meter. [40 CFR 63.6625(f)]

#### **Compliance Requirements**

- B.5. Continuous Compliance.** This unit shall be in compliance with the operating standards in this section at all times. [40 CFR 63.6605(a)]
- B.6. Operation and Maintenance of Equipment.** At all times the owner or operator must operate and maintain, any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the compliance authority which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b)]

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##### Reporting Requirements

**B.7. Delay of Performing Work Practice Requirements.** If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Specific Condition **B.3.** of this section, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. [40 CFR 63, Subpart ZZZZ, Table 2c, footnote 1]

##### Recordkeeping Requirements

**B.8. Performance and Compliance Records.** The owner or operator must keep:

- A copy of each notification and report that the owner or operator submitted to comply with this section, including all documentation supporting any Initial Notification or Notification of Compliance Status that the owner or operator submitted. [40 CFR 63.6655(a)(1)]
- Records of the occurrence and duration of each malfunction of operation. [40 CFR 63.6655(a)(2)]
- Records of all required maintenance performed on the hour meter. [40 CFR 63.6655(a)(4)]
- Records of actions taken during periods of malfunction to minimize emissions in accordance with Specific Condition **B.6.**, including corrective actions to restore malfunctioning process and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(5)]
- Records of the actions required in specific condition **B.3.d.** to show continuous compliance with each emission limitation or operating requirement. [40 CFR 63.6655(d)]
- Records of the Work or Management Practice Standards specified in Specific Condition **B.3.** [Rule 62-213.440(1)(b)2.a., F.A.C.]
- Records of the maintenance conducted in order to demonstrate that the RICE was operated and maintained according to your own maintenance plan. [40 CFR 63.6655(e)]
- Records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for emergency demand response operation or for periods of voltage or frequency deviations, the owner or operator must keep records of the notification of the emergency situation, and the time of engine operation for these purposes. [40 CFR 63.6655(f)]

[Rule 62-213.440, F.A.C. and 40 CFR 63.6655]

**B.9. Record Retention.**

- The owner or operator must keep records in a suitable and readily available form for expeditious reviews.
- The owner or operator must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

[40 CFR 63.6660 and 40 CFR 63.10(b)(1)]

##### General Provisions

**B.10. 40 CFR 63 Subpart A, General Provisions.** This engine shall comply with the following applicable requirements of 40 CFR 63 Subpart A, General Provisions, which have been adopted by reference in Rule 62-204.800(11)(d)1., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 63.5(e), 40 CFR 63.5(f), 40 CFR 63.6(g), 40 CFR 63.6(h)(9), 40 CFR 63.6(j), 40 CFR 63.13, and 40 CFR 63.14. (See Appendix NESHAP Subpart A – General Provisions.)

General Provisions Citation	Subject of Citation
§63.1	General applicability of the General Provisions
§63.2	Definitions (Additional terms defined in §63.6675)

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<b>General Provisions Citation</b>	<b>Subject of Citation</b>
§63.3	Units and abbreviations
§63.4	Prohibited activities and circumvention
§63.5	Construction and reconstruction
§63.6(a)	Applicability
§63.6(b)(1)–(4)	Compliance dates for new and reconstructed sources
§63.6(b)(5)	Notification
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources
§63.6(c)(1)–(2)	Compliance dates for existing sources
§63.6(c)(5)	Compliance dates for existing area sources that become major sources
§63.9(a)	Applicability and State delegation of notification requirements
§63.9(b)(1)–(5)	Initial notifications Except that §63.9(b)(3) is reserved. Except that §63.9(b) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines
§63.9(j)	Change in previous information
§63.10(a)	Administrative provisions for recordkeeping/reporting
§63.10(b)(1)	Record retention
§63.10(b)(2)(vi)–(xi)	Records
§63.10(b)(2)(xii)	Record when under waiver
§63.10(b)(2)(xiv)	Records of supporting documentation
§63.10(b)(3)	Records of applicability determination
§63.10(d)(1)	General reporting requirements
§63.10(f)	Waiver for recordkeeping/reporting
§63.12	State authority and delegations
§63.13	Addresses
§63.14	Incorporation by reference
§63.15	Availability of information

[40 CFR 63.6665 & Table 8 to Subpart ZZZZ of Part 63]

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