Lakeland Electric
Winston Peaking Station

Facility ID No.: 1050352
Polk County

Title V Air Operation Permit Revision

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

PROPOSED

Permitting Authority

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Division of Air Resource Management
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Title V Air Operation Permit Revision

Permit No. 1050352-008-AV

Table of Contents

Section **Page Number**

Placard Page. 1

I. Facility Information. ..... 2 - 3
- A. Facility Description. 2
- B. Summary of Emissions Unit ID No(s). and Brief Description(s). 2
- C. Relevant Documents. 3

II. Facility-wide Conditions. ..... 4 - 5

III. Emissions Unit(s) and Conditions.
- A. 20 – 2.5 MW Internal Combustion Engines. ..... 6 – 18
- B. One 350 kW Emergency Diesel Engine. 19-22
- ~~C. Common Conditions for EU 001-021. ..... 17~~

IV. Appendices, ~~and Attachments (listed in sequence as attached):~~ 24

Appendix TV~~-6~~, Title V Conditions (version dated 9/12/2012~~06/23/06 with AOR and Renewal updates 11/10/2008)~~

~~Appendix SS-1, Stack Sampling Facilities~~

Appendix A-1, Abbreviations, Definitions, Citations, and ID Numbers

~~Figure-1, Summary Report – Gaseous and Opacity Excess Emission and Monitoring System Performance~~

~~Appendix H-1, Permit History~~

Appendix I-1, List of Insignificant Emissions Units and/or Activities

Appendix CP-1, Compliance Plan for Natural Gas Compliance Testing

Appendix CP-2, Compliance Plan for Emergency Operation of EU 001 to 020

Appendix CAM

~~Appendix 63, Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE)~~

~~Appendix 63, Subpart A – NESHAP General Provisions~~

~~Appendix 63, Subpart ZZZZ – Summary of NESHAP 40 CFR 63, Subpart ZZZZ Applicable Requirements~~

~~Appendix 63, Subpart ZZZZ – RICE Inventory at Winston~~

Appendix RR, Reporting Requirements

Appendix TR, Testing Requirements

~~Table 297.310-1 Calibration Schedule~~

~~Statement of Basis~~

Referenced Attachments. ..... At End

Figure-1, Summary Report – Gaseous and Opacity Excess Emission and Monitoring System Performance

Table H-1, Permit History

Table 1, Summary of Air Pollutant Standards and Terms.

Table 2, Summary of Compliance Requirements.

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FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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2600 BLAIR STONE ROAD
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RICK SCOTT
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FINAL Permit No. 1050352-008-AV
Facility ID No. 1050352
SIC No.: 4911
Project: Title V Air Operation Permit Revision

The purpose of this permit is to revise Title V Air Operation Permit 1050352-005-AV to include the 40 CFR 63, Subpart ZZZZ applicable requirements for emissions units 001-021; and, to incorporate updated conditions that reflect the reduced NO_X emissions cap and emergency and non emergency operating hours for these units. This existing facility is located at 1200 Airport Road, Lakeland, Polk County; UTM Coordinates: Zone 17, 400.08 km East and 3100.69 km North; and, Latitude: $28^0$01'39.82" North and Longitude: $82^0$00'59.14" West.

This Title V Air Operation Permit Revision 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 shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

~~**Referenced attachments made a part of this permit:**~~
~~Appendix I-1, List of Insignificant Emissions Units and/or Activities~~
~~Appendix TV-6, Title V Conditions (version dated 06/23/06 with AOR and Renewal updates 11/10/2008)~~
~~APPENDIX SS-1, STACK SAMPLING FACILITIES version dated 10/07/96~~
~~Appendix CP-1, Compliance Plan dated 03/02/05~~
~~Appendix CP-2, Compliance Plan for Emergency Operation of EU 001 to 021~~
~~Appendix CAM~~
~~Appendix 63, Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE)~~
~~Appendix 63, Subpart A – NESHAP General Provisions~~
~~Appendix 63, Subpart ZZZZ – Summary of NESHAP 40 CFR 63, Subpart ZZZZ Applicable Requirements~~
~~Appendix 63, Subpart ZZZZ – RICE Inventory at Winston~~
~~TABLE 297.310-1, CALIBRATION SCHEDULE version dated 10/07/96~~

1050352-005-AV Effective Date: **May 12, 2011**
1050352-008-AV Effective Date: **(Day 55)**
Renewal Application Due Date: **September 30, 2015**
Expiration Date: **May 12, 2016**

(Proposed)

Jeffery F. Koerner, Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

JFK/sa/jh/th

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Subsection A. Facility Description.

This facility consists of twenty nominal 2.5-MW GM EMD 20/645/E4B diesel engines, one 350-kW ~~Volvo~~ 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. ~~or~~ 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. ~~F~~The fuel oil ~~will~~ 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 ~~is~~was categorically exempt from the requirement to obtain an air construction permit ~~with the fuel limitation of 32,000 gallons per year in the unit~~. However it is not exempt from Title V permitting requirements due to ~~unit specific applicable requirement of complying with~~ the requirements of 40 CFR Part 63, Subpart ZZZZ - National Emission Standards of Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE). T~~he addition of~~ ~~t~~this emergency generator ~~gave the facility~~ has the potential to emit (PTE) about 10 ~~260~~ tons per year of NO_X ~~per year~~, ~~which makes the facility a PSD major facility~~.

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

Based on the Title V Air Operation Permit ~~Renewal~~ Revision application received 07/15/2013~~7/21/2009~~, this facility is an area source of hazardous air pollutants (HAPs).

This facility is classified as a synthetic minor prevention of significant deterioration (PSD) ~~major~~ 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)~~, as revised in the March 3, 2010 Federal Registers for all twenty diesel engines and one emergency diesel engine. The March 3, 2010 Subpart ZZZZ revisions have an effective date of May 3, 2010, and a compliance date of May 3, 2013 for all existing CI RICE at this area source of HAP~~. 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.

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No.	Brief Description
001-020	20 GM EMD 20/645/E4B diesel engines and associated electric generators (Existing Stationary CI RICE Diesel Engines > 500 HP each)
021	One 350-kW VOLVO TAD1232GE emergency diesel engine and associated electric generator. (Existing Stationary Emergency CI RICE Diesel Engine > 500 HP)

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection C. Relevant Documents.

The documents ~~listed below are not a part of this permit; however, they are specifically related to this permitting action.~~ related to this permitting action are posted under permit No.1050352-008-AV at the following web site address: http://appprod.dep.state.fl.us/air/emission/apds/default.asp

~~These documents are provided to the permittee for information purposes only:~~
~~Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers~~
~~Appendix H-1, Permit History~~
~~Statement of Basis~~

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~~These documents are on file with the permitting authority:~~
~~Initial Title V Air Operation Permit issued 03/17/2005~~
~~Title V Air Renewal Operation Permit effective date 05/12/2011~~

PROPOSED

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:

- Paving and maintenance of roads, parking areas and yards.
- Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
- Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
- 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.
- Landscaping or planting of vegetation.
- Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
- Confining abrasive blasting where possible.
- Enclosure or covering of conveyor systems.

In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice. [Rule 62-296.320(4)(c)2., F.A.C.; and, 1050352-001-AC]

Annual Reports and Fees

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

FW6. Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370(3), F.A.C.]

FW7. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by April 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download 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/permitting/tvfee.htm. [Rule 62-213.205, F.A.C. and §403.0872(11), Florida Statutes (2013)]

{Permitting Note: In addition to the change in the Title V fee submission from March 1st to April 1st, Chapter 403.0872(11)(a) has been revised to require that the annual fee be calculated based upon actual emissions rather than allowable emissions, as in the past. The Department will be exploring the development of a revision to the electronic annual operating report (EAOR) application to automatically calculate the amount of the fee based upon actual emission information provided with the annual operating report. When completed, the procedures for submitting the fee and/or the submission address may change. Until further notice, the fees shall continue to be submitted to the address shown in Specific Condition FW7 and according to instructions posted on the Department's fee information web page. Be sure to check the Title V Annual Emissions Fee On-line Information Center (see above web site address) periodically for updates, especially before submitting future Title V fee payments.}

FW8. 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 within 60 days after the end of each calendar year during which the Title V permit was effective. [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

FW9. 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://www.epa.gov/osweroe1/content/rmp/index.htm. 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]

PROPOSED

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

E.U. ID No.	**Brief Description**
001-020	20 GM EMD 20/645/E4B diesel engines and associated electric generators. (Existing Stationary CI RICE Diesel Engines > 500 HP each)

Twenty GM EMD 20/645/E4B diesel engines and associated electric generators. Each Power Module consists of one General Motors (GM) Electro Motive Division (EMD) 20-cylinder Model 645 E4B, 2-cycle turbocharged internal combustion (IC) engine and one Baylor-Stallion Model G8558RNV electric generator. The GM EMD IC engine has a power rating of 3,600 brake horsepower (bhp) at 100 percent load. The Baylor-Stallion generator has a power output rating of 2,500 kilowatt (continuous rating) and 2,750 kilowatts (kW) under peak load conditions. The 20 generators are designed to produce a nominal 50 MW (55 MW at peak load) of electric power. The IC engines ~~will be fired with low sulfur (maximum of 0.05 weight percent sulfur) diesel fuel oil and natural gas (with 6 percent diesel fuel for ignition)~~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. ~~and~~These engines operate using selective catalytic reduction (SCR), oxidation catalyst, and an air/fuel ratio regulator for the control of nitrogen oxide (NO_X) emissions. Compliance Assurance Monitoring (CAM) applies to each of these engines as detailed in the attached Appendix CAM.

{Permitting Notes: The facility is an existing synthetic minor Prevention of Significant Deterioration (PSD)~~ major source of air pollution in accordance with Rule 62-212.400, F.A.C.~~ The facility used to be a synthetic PSD minor facility with the NO_x emissions from Emission Unit Nos. 001-020 limited to 249.4 tpy. The facility added an emergency diesel generator that was categorically exempt from the requirements to obtain an air construction permit by limiting the fuel usage to 32,000 gallons per year of diesel (roughly equivalent to 10 tpy of NO_x emission) in the unit. The addition of this emergency diesel generator made the facility a PSD major facility with the potential NO_x emissions of 259.4 tpy. These emissions units are not regulated under Acid Rain, Phase II. Each 2.5 MW unit exhausts through a single stack. Stack height = 34 feet; exit diameter = 2.3 feet; exit temperature = 740^{0}F (natural gas), 635^{0}F (fuel oil); actual volumetric flow rate = 21,350 acfm.}

~~These emissions units are not regulated under Acid Rain, Phase II. Each 2.5 MW unit exhausts through a single stack. Stack height = 34 feet; exit diameter = 2.3 feet; exit temperature = 740^{0}F (natural gas), 635^{0}F (fuel oil); actual volumetric flow rate = 21,350 acfm.~~

The following table provides important details for these emissions units:

Engine Brake HP	**Date of Construction**	**Date ordered**	**Date Installed**	**Model Year**	**Displacement liters/cylinder (l/c)**	**Model No.**
3,600 HP 2,750 kW	Varies (1973-1979)	2001	2001	unknown	10.6	GM EMD 20/645/E4B

{Permitting Note: These emissions units, compression ignition (CI) engines, are 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 "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

The following specific conditions apply to the emissions unit(s) listed above:

A.0. Compliance Plan and Operating Conditions for Emergency Operation. The permittee has chosen to temporarily restrict these units to emergency operation only, as allowed by 40 CFR 63.6640(f)(4). This Section of the permit is not applicable until the permittee notifies the Department that they wish to resume operation of these units as non-emergency engines. Until that time, the permittee shall comply with requirements contained in the attached Appendix CP-2, Compliance Plan for Emergency Operation of EU 001 to 020. [Rule 62-213.440(1)(b), F.A.C.]

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The heat input to each internal combustion engine from firing No. 2 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 26.35 MMBtu per hour at 100% load. [Rules 62-4.160(2) & 62-210.200(PTE), F.A.C.; Construction Permits 1050352-001-AC & 1050352-004-AC]

A.2. Methods of Operation - (i.e. Fuels). Only No. 2 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.

a. Natural Gas. The heat input from natural gas shall not exceed 26.35 MMBtu/hr. Firing of natural gas requires 6% diesel fuel for ignition.

b. Fuel Oil. The heat input from No. 2 fuel oil shall not exceed 25 MMBtu/hr at full load or 28 MMBtu/hr at peak load. ~~The maximum sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent, by weight.~~

(1) *Sulfur Content*. The sulfur content shall not exceed = 15 ppm = 0.0015% by weight (ultra low sulfur) for non-road fuel.

(2) *Cetane and Aromatic*. 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, Construction Permits 1050352-001-AC & 1050352-004-AC]

A.3. Hours of Operation:

a. The twenty internal combustion engines shall operate no more than ~~43,000~~ 41,000 engine-hours when firing fuel oil at 100% load, or 17,520 engine-hours at peak load or ~~89,200~~ 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_X emissions cap ~~limit~~ 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_X 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 and 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)]

[Rules 62-4.160(2) & 62-210.200(PTE), F.A.C.; Permits 1050352-001-AC; 1050352-004-AC & 1050352-007-AC, Specific Condition 2.]

A.4. Emissions Unit Operating Rate Limitation After Testing. See ~~Specific Condition A.18.~~the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

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Control Technology

A.5. NO_X and CO Control Technologies. The following are the control technologies established by permit 1050352-001-AC to avoid PSD regulations during the construction/installation of the 20 GM engines;
a. Selective Catalytic Reduction (SCR) to control NO_X emissions.
b. Oxidation Catalyst (OC) to control CO emissions.
[Rules 62-212.400 and 62-4.070(3), F.A.C., and TEPD & Permit 1050353-001-AC]

*{Permitting Note: NO_X 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: 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. Nitrogen Oxides (NO_X). NO_X emissions from each internal combustion engine shall not exceed 13.9 lb/hr while in peak load operation firing distillate oil, or 11.6 lb/hr while in base load operation firing distillate oil, or 5.58 lb/hr in base load operation firing natural gas. Annual emissions of NO_X in TPY from these emission units shall be calculated by using the allowable NO_X 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.**) ~~This~~The NO_X emissions from the 20 engines ~~in tpy~~ shall not exceed ~~249.4~~ 237.8 TPY, based upon a consecutive 12-month period.
[Rule 62-212.400, F.A.C.; Construction Permits 1050352-001-AC; 050352-004-AC & 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 if 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.; Construction Permit 1050352-001-AC]

A.8. Ammonia Emissions. The concentration of ammonia in the exhaust gas from each internal combustion engine shall not exceed 10 ppmvd @15% O_2 while firing natural gas or fuel oil.
[Rule 62-4.070, F.A.C.; Construction Permit 1050352-001-AC]

A.9. Carbon Monoxide (CO) Emissions. The owner or operator must reduce carbon monoxide (CO) by:
a. Limiting the concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O_2; or
b. Reduce CO emissions by 70 percent or more.
[40 CFR 63.6603(a) Table 2d. paragraph 3.]

Excess Emissions

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP 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.; Construction Permit 1050352-001-AC]

PROPOSED

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.; Construction Permit 1050352-001-AC]

Operating Requirements

A.12. Operating Limitations for the Oxidation Catalyst. You must operate these engine catalysts with the following requirements:

a. 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

b. 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.

a. Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

b. 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_X Compliance Assurance Demonstration Method. Using the information required by Specific Conditions **A.6.** & **A.35.**, compliance with the 12-month NO_X 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:
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)
[Construction Permit 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.

PROPOSED

a. Except for monitor malfunctions, associated repairs, 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 approved operating parameter 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 operating parameters established during the performance test.

[40 CFR 63.6640(a) and Table 6, paragraph 11.]

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 0.05% by weight. The permittee shall also maintain daily records of fuel oil and natural gas consumption for the emission units.
[Rules 62-297.440, F.A.C. & 62-210.200, F.A.C.; Construction Permit 1050352-001-AC]

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.; 40 CFR 63.6625(f); and, Construction Permit 1050352-001-AC]

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_X emissions. (See attached Appendix CP-1, Compliance Plan for Natural Gas Compliance Testing.)
[Rules 62-4.070 & 62-213.440, F.A.C.]

A.22. CO Continuous Parameter Monitoring System (CPMS). You are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of 40 CFR 63, Subpart ZZZZ, to monitor catalyst inlet temperature and pressure drop across the catalyst. You must install, operate, and maintain each CPMS according to the requirements in 40 CFR 63.6625(b)(1) through (6), replicated below as paragraphs **a**. through **f**.
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. Link to 40 CFR 63.8
(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;

PROPOSED

(4) Ongoing operation and maintenance procedures in accordance with provisions in § 63.8(c)(1)(ii) and (c)(3); and
(5) Ongoing reporting and recordkeeping procedures in accordance with provisions in § 63.10(c), (e)(1), and (e)(2)(i).

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 § 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)]

Test Methods and Procedures for NO_X, VE and Ammonia

A.23. NO_X, NH_3 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 ~~DEP Emissions Monitoring Section Administrator~~Department.
[Construction Permit 1050352-001-AC]

A.24. NO_X and NH_3 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_X 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 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-1, Compliance Plan for Natural Gas Compliance Testing.)**
[Rules 62-213.440(2), 62-297.310(7)(a)1. & 62-297.310(7)(c), F.A.C.; Construction Permit 1050352-001-AC]

{Permitting Note: Initial performance tests for NO_X 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. ~~T~~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 in the preceding 12-month period. Annual performance tests for NO_X shall be conducted on the emissions units that emitted a cumulative total of more than 100 tons per year of NO_X in the preceding 12-month period. The facility ~~will be~~is required to keep 12-month emission totals of NO_X in tons per year for each internal combustion engine during each federal fiscal year (October 1- September 30). Tests required on an annual basis shall be conducted at least once during each federal fiscal year.

PROPOSED

[Rule 62-297.310(7)(a)4. & 62-297.310(7)(c), F.A.C.; Construction Permits 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_X, 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. [Rule 62-297.310(7)(a)3., F.A.C.; Construction Permits 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 of 40 CFR 63, Subpart ZZZZ]

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. [40 CFR 63.7(h), 63.6612, 63.6615 & Table 3; and, Permit 1050352-007-AC, Specific Condition 3.]

A.29. Methods and Measurements to Determine O_2 and CO.

a. *Measurements to Determine O_2.* The owner or operator must measure the O_2 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_2 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 40 CFR 63.14) or Method 10 of 40 CFR 60, Appendix A. The CO concentration must be at 15 percent O_2, 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:

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

Where:

C_i = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

C_o = 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_2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO_2 concentration is measured in lieu of oxygen concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (1) through (3), below.

(1) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

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

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

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

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu)

(2) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2 , as follows:

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

Where:

X_{CO2} = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2 —15 percent O_2 , the defined O_2 correction value, percent.

(3) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

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

Where:

C_{adj} = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O_2

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

X_{CO2} = CO_2 correction factor, percent.

% CO_2 = Measured CO_2 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:

PROPOSED

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)]

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. 6655(a)(1)
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). Link to 40 CFR 63.10
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). Link to 40 CFR 63.10
g. Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3). Link to 40 CFR 63.8
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. Link to 40 CFR 63.8
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) & Table 6, Paragraph 11]

A.34. Record Retention.
a. The owner or operator must keep records in a suitable and readily available form for expeditious reviews.
b. 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.
c. 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, Construction Permit 1050352-001-AC]

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_X (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.; Construction Permits 1050352-001-AC & 1050352-004-AC]

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.8.
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), 63.9(b), (e) & (g) that by the dates specified. Link to 40 CFR 63, Subpart A [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, 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)]

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.
(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]

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(7)(b), F.A.C.

[40 CFR 64; and, Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

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
§ 63.8(c)(1)	Monitoring system operation and maintenance
§ 63.8(c)(1)(i)	Routine and predictable SSM
§ 63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan
§ 63.8(c)(1)(iii)	Compliance with operation and maintenance requirements
§ 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

PROPOSED

General Provisions Citation	Subject of Citation
§ 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 & Table 8]

PROPOSED

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

E.U. ID No.	Brief Description
021	One VOLVO ~~EMD~~ TAD1232GE emergency diesel engine and associated electric generator (Existing Stationary CI RICE Emergency Diesel Engine > 500 HP)

One Volvo TAD1232GE emergency diesel engine and associated generator set. 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 will be fired with low sulfur (maximum of 0.05 weight percent of sulfur) diesel fuel. This emission unit is subject to the requirements of 40 CFR 63, Subpart ZZZZ.

~~*{Permitting Note: This emergency diesel engine was categorically exempt from the requirements to obtain an air construction permit pursuant to Rule 62-210.300(3)(a), F.A.C. This status will remain so long as the facility never burns more than 32,000 gallons of diesel in the unit. The burning of 32,000 gallons of diesel fuel is roughly equivalent to 10 tons per year (tpy) of nitrogen oxide (NO_x) emitted from this unit. This emission unit is not exempt from the Title V permitting requirements of a regulated emission unit due to the unit specific applicable requirement of compliance with the requirements of 40 CFR 63, Subpart ZZZZ.}*~~

The following table provides important details for this emissions unit:

Engine Brake HP	Date of Construction	Model Year	Fuel	Displacement liters/cylinder (l/c)	Model No.
514 HP (350 kW)	2001 Installed 2001 Ordered	unknown	Diesel	2.0	TAD 1232GE

{Permitting Note: This emissions unit, 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 RICE is an existing emergency engine. This permit section addresses an "existing" stationary 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.}

The following specific conditions apply to the emissions unit listed above:

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. ~~The emergency diesel engine shall not burn more than 32,000 gallons of No. 2 diesel oil per consecutive 12-month period which is equivalent to 10 tpy of NO_x. The maximum sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent, by weight. The permittee shall demonstrate compliance with the fuel oil sulfur limit by keeping the records specified in this permit.~~ [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. *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. [40 CFR 63.6640(f)(1)]

c. *Non-emergency Situations*. This unit is authorized to operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. [40 CFR 63.6640(f)(1)(iii)]

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 **A.3.a**. 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 with Operating Requirements

B.5. Continuous Compliance. Each 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)]

Recordkeeping Requirements

B.7. Required Records. The owner or operator must keep the following records in order to be in compliance.

a. *Maintenance.* The owner or operator must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the stationary RICE and after-treatment control device (if any) are operated and maintained according to your own maintenance plan. [40 CFR 63.6655(e)]

b. *Records Retention.*

(1) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1). [40 CFR 63.6660(a)]

(2) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR 63.6660(b)]

(3) You 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, according to §63.10(b)(1). [40 CFR 63.6660(c)]

Reporting Requirements

B.8. Emergency Situation. 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 **A.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]

B.9. Monthly Fuel Usage Operations Summary. By the fifth calendar day of each month, the permittee shall record the most recent consecutive 12-month usage of No. 2 fuel oil fired in the emergency diesel engine. The information shall be recorded in a written or electronic log and shall be available for inspection and/or printing within one day of a request from the Compliance Authority. [Rule 62-213.440(1)(b), F.A.C.]

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)
§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

General Provisions Citation	Subject of Citation
§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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~~**Section III. Emissions Unit(s) and Conditions.**~~

~~**Subsection C. Common Conditions for EU 001 – EU 021**~~

~~**Applicable Federal Requirements**~~

~~**C.1.** Federal 40 CFR 63 NESHAP Subpart ZZZZ Requirements - The engines in EU Nos. 001-021 are subject to the applicable requirements of NESHAP 40 CFR 63 Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines), which is attached to this permit as **Appendix NESHAP 40 CFR 63 Subpart ZZZZ**, as it applies to existing RICE at area sources of hazardous air pollutants (HAP). The applicable requirements for each engine category and HP rating range are shown in **40 CFR 63, Subpart ZZZZ applicability table – Summary of NESHAP 40 CFR 63 Subpart ZZZZ Requirements for Existing CI RICE at Area Sources of HAP**, attached to this permit.
[Rule 62-4.070(3), F.A.C.; NESHAP 40 CFR 63 Subpart ZZZZ]~~

~~*(Compliance Note – The final compliance date for the applicable Subpart ZZZZ requirements for the existing compression ignition (**CI**) RICE engines (E.U. Nos. 001-021) at this area source of HAP is 05/03/2013. (40 CFR 63.6595(a)(1).)*~~

~~**C.2.** Federal NESHAP 40 CFR 63 Subpart A General Provisions Requirements - The engines in EU Nos. 001 - 021 are subject to the applicable requirements of NESHAP 40 CFR 63 Subpart A (General Provisions for 40 CFR 63), as adopted and incorporated by reference in Rules 62-204.800(11)(d), F.A.C., which is attached to this permit as **Appendix NESHAP 40 CFR 63 Subpart A General Provisions**. The applicable requirements of Subpart A are shown in Table 8 to 40 CFR 63 Subpart ZZZZ *(see Appendix 40 CFR 63 Subpart ZZZZ).*
[Rule 62-208.800(11)(d), F.A.C.; NESHAP 40 CFR 63 Subpart ZZZZ]~~

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SECTION IV. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Abbreviations, Definitions, Citations, and ID Numbers.
Appendix CAM, Compliance Assurance Monitoring.
Appendix CP-1, Compliance Plan dated 03/02/05.
Appendix CP-2, Compliance Plan for Emergency Operation of EU 001 to 020.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.

The Following Attachments are Included for Applicant Convenience

Figure-1, Summary Report – Gaseous and Opacity Excess Emission and Monitoring System Performance.
Table H, Permitting History Summary.
Table 1, Summary of Air Pollutant Standards and Terms.
Table 2, Summary of Compliance Requirements.

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