

Florida Power & Light Turkey Point Nuclear Plant

Facility ID No. 0250003
Miami-Dade County

Title V Air Operation Permit Renewal

Permit No. 0250003-021-AV
(Renewal of Title V Air Operation Permit No. 0250003-010-AV)



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Title V Air Operation Permit Renewal

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Permit No. 0250003-021-AV
Turkey Point Nuclear Plant
Facility ID No. 0250003
Project: Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V Air Operation Permit for the above referenced facility. The existing Turkey Point Nuclear Plant is located in Miami-Dade County at 9700 SW 344th Street, Florida City. UTM Coordinates are: Zone 17, 567.2 km East and 2813.2 km North; Latitude: 25° 26' 09" North and Longitude: 80° 19' 52" 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 shown on the application and approved drawings, plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Effective Date: January 1, 2014
Renewal Application Due Date: May 20, 2018
Expiration Date: December 31, 2018

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

JK/sa/jh/th

SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

The Turkey Point Title V Facility is composed of two separate co-located power plants: the Fossil Plant and the Nuclear Plant. This permit, No. 0250003-021-AV, addresses only the (non-nuclear) operations at the Nuclear Plant. The operations at the Fossil Plant are addressed in a separate Title V permit.

The Nuclear Plant consists of: two nuclear generating units with a combined capacity of 1,332 megawatts (MW); multiple diesel emergency generators; a diesel engine-driven emergency fire pump; miscellaneous emergency diesel engines used to support plant equipment; and, miscellaneous unregulated and insignificant emissions units and/or activities. This permit does not address the two nuclear generating units which are regulated by the Nuclear Regulatory Commission (NRC) pursuant to the Atomic Energy Act.

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
<i>Regulated Emissions Units</i>	
007	Four Emergency Diesel Engines Used to Support Plant Equipment
023	Two Emergency Diesel Generator Engines For South Dade Meteorological Tower
024	One Emergency Diesel Fire Pump
<i>Unregulated Emissions Units and Activities (See Appendix U)</i>	
005	Four Diesel Engine-driven Emergency Generators Not Subject to RICE
006	Three Emergency Diesel Engines Used to Support Plant Equipment Not Subject to RICE

Also included in this permit are miscellaneous insignificant emissions units and/or activities (see Appendix I – List of Insignificant Emissions Units and/or Activities). The engines contained in unregulated Emission Units 005 and 006 are exempt from the requirements of 40 CFR 63, Subpart ZZZZ, because they are existing or new emergency engines greater than 500 HP located at a major source of HAP.

Subsection C. Applicable Regulations.

Based on the Title V Air Operation Renewal application received December 7, 2012, this facility is a major source of hazardous air pollutants (HAP). This facility is classified as a PSD major facility. A summary of applicable regulations is shown in the following table.

Applicable Requirement/Regulation	E.U. ID No(s).
<i>Federal Rule Citations</i>	
40 CFR 60, Subpart A, New Source Performance Standards (NSPS) General Provisions	007
40 CFR 60, Subpart IIII, New Source Performance for Stationary Internal Combustion Engines (ICE).	007
40 CFR 63, Subpart A, National Emissions Standards for Hazardous Air Pollutants (NESHAP) General Provisions	023, 024
40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE)	023, 024

SECTION I. FACILITY INFORMATION.

Applicable Requirement/Regulation	E.U. ID No(s).
<i>State Rule Citations</i>	
Rules 62-4.160(2), F.A.C., Permit Conditions	All
Rule 62-210.200(PTE), F.A.C., Definitions	
Rule 62-210.300, F.A.C., Permits Required	
Rule 62-213, F.A.C., Title V Requirements	

SECTION II. FACILITY-WIDE CONDITIONS.

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. No person shall 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. Nothing is deemed necessary and ordered at this time. [Rule 62-296.320(1)(a), F.A.C.]

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. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. 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 of roads, parking areas and equipment yards;
- b. Landscaping and planting vegetation;
- c. Use of thick poly-flaps over doorways to prevent any sandblasting material from leaving the sandblast facility. (The facility also constructs temporary sandblasting enclosures when necessary in order to perform sandblasting on fixed plant equipment.);
- d. Maintenance of paved areas;
- e. Regular mowing of grass and care of vegetation;
- f. Limiting access to plant property by unnecessary vehicles;
- g. Bagged chemical products are stored in weather-tight buildings until they are used. (Spills of powdered chemical products are cleaned up as soon as possible.); and,
- h. Vehicles are restricted to slow speeds on the plant site.

[Rule 62-296.320(4)(c), F.A.C. and provided by applicant in Title V air operation permit renewal application received December 7, 2012.]

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.]

{Permitting Note: If the applicant chooses to use the Electronic Annual Operating Report software, instructions provided with the system should be followed.}

SECTION II. FACILITY-WIDE CONDITIONS.

FW7. Annual Emissions Fee Form and Fee. The Title V annual emissions fees are due (postmarked) by March 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/emission/tvfee.htm>. [Rule 62-213.205, F.A.C.]

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.]

{Permitting Note: As specified in Specific Condition RR7 of Appendix RR, the applicant shall use DEP Form No. 62-213.900 (7) to comply with these requirements.}

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 to: 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]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 007

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

ID No.	Emission Unit Description
007	<p>Four Diesel Engine-driven Emergency Engines Used to Support Plant Equipment</p> <ul style="list-style-type: none"> Two Caterpillar 325 HP - C11 ACERT™ Industrial Back-up Generators for the Instrument Air Compressors Generators One John Deere 149 HP Diesel Engine-driven Pump for the Back-up Service Water Feed System One Isuzu 24 HP Generator Set for the Land Utilization Meteorological Tower

Emissions Unit 007 consists of four emergency diesel engines used for the plant's backup systems for the instrument air compressors, the service feed water system and the generator at the 10-Meter Land Utilization Meteorological Tower. The emergency Service Water Feed Pump is used as a back-up to the Auxiliary Feed Water System (EU 006), which is used as a back-up to the main Service Feed Water System (electric pumps). These engines fire ultra low sulfur diesel fuel (0.0015% S).

In the event station power is lost, Turkey Point Units 3 and 4 (nuclear reactors) have emergency generators (see Unregulated EU 005) that supply critical systems including electric power for the instrument air compressors. In the event that the emergency generators cannot supply electric power for instrument air, the two 325 HP Caterpillar diesel engine-driven generators provide backup power to the instrument air compressors (i.e., the instrument air compressor diesel engines (part of EU 007) are a backup to the backup system of EU 005).

To provide cooling water to the nuclear reactors in normal, non-emergency situations, electric motors are utilized to drive feed water pumps for the system. In emergency situations due to a loss of electrical power, the 149 HP emergency engine is used to provide mechanical power to the back-up Service Feed Water Pump System.

The following table provides important details for the engines collectively regulated as EU 007:

Engine Identification	Engine Brake HP	Date of Purchase	Model Year	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
Instrument Air Compressor Generators	325 (242 kW)	01/03/11	2011	1.85	Caterpillar	GLS03911 and GLS03912
Service Feed Water System Pump	149 (115 kW)	11/28/12	2012	1.13	John Deere	Model 4045HF485 (Serial No. PE4045L217923)
10-Meter Land Utilization Meteorological Tower Generator	24 (18 kW)	November 2011	2011	1.64	Yanmar	Model 3CE1

{Permitting Notes: These compression ignition reciprocating internal combustion engines (CI RICE) are regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE and 40 CFR 60, Subpart IIII, NSPS for Stationary Compression Ignition RICE, adopted in Rules 62.204.800(11)(b) & (8)(b), F.A.C., respectively. These RICE are not used for fire pumps. These are "new" stationary emergency CI RICE with a displacement of less than 10 liters per cylinder, located at a major source of HAP, that have been modified, reconstructed or commenced construction on or after 6/12/2006, and that have a post-2007 model year. In accordance with provisions of 40 CFR 63.6590(c)(6), meeting the requirements of 40 CFR 60, Subpart IIII, satisfies compliance with the requirements of Subpart ZZZZ. As emergency use engines, these units are not subject to the VOC and NO_x RACT requirements contained in Rules 62-296.500 & 570, F.A.C. The emergency generators for the instrument air compressors were installed in 2011 under the authority of permit No. 0250003-015-AC. The emergency generators for the service feed water system and the 10-meter land utilization meteorological tower were installed in 2013 under the authority of permit No. 0250003-020-AC.}

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 007

Essential Potential to Emit (PTE) Parameters

- A.1. Authorized Fuel.** These Stationary Reciprocating Internal Combustion Engines (RICE) must use diesel fuel that meets the following requirements for non-road diesel fuel:
- a. *Sulfur Content.* The sulfur content shall not exceed = 15 ppm = 0.0015% by weight (ultra low sulfur) for non-road fuel.
 - b. *Cetane and Aromatic.* The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
 - c. *Marking Provisions.* The diesel fuel fired shall be free of marker solvent yellow 124 until November 30, 2014. After December 1, 2014, there are no requirements or restrictions on the use of marker solvent yellow 124.
 - d. *Use of Existing Fuel.* Any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.
- [40 CFR 60.4207(b), 80.510(c), 80.510(f)(2) & 80.510(f)(7); and, Permit Nos. 0250003-015-AC & 0250003-020-AC]
- A.2. Restricted Hours of Operation.**
- a. *Maintenance and Testing.* These engines are 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.
 - b. *Emergency Situations.* There is no time limit on the use of emergency stationary RICE in emergency situations.
 - c. *Non-emergency Situations.* These engines may 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.
 - d. *Other Situations.* These engines cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity.
- [40 CFR 60.4211(f); and, Permit Nos. 0250003-015-AC & 0250003-020-AC]
- A.3. Operation and Maintenance.** The owner or operator must operate and maintain the stationary CI internal combustion engines according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. These RICE must be maintained and operated to meet the emissions limits in Specific Conditions **A.4. - A.6.** over the entire life of the engine. [40 CFR 60.4206, 4211(a)(1), (2) & (3); and, Permit Nos. 0250003-015-AC & 0250003-020-AC]

Emissions Standards

- A.4. NO_x + NMHC Emissions.** Emissions of NO_x plus non-methane hydrocarbons shall not exceed:
- a. *325 HP Caterpillar Engines.* 4.0 grams per kilowatt hour (g/kW-hr). [40 CFR 60.4205(b), 40 CFR 60.4202(a)(2) & 40 CFR 89.112(a); and, Permit No. 0250003-015-AC]
 - b. *149 HP John Deere Engine.* 4.0 grams per kilowatt hour (g/kW-hr). [40 CFR 60.4205(b), 40 CFR 60.4202(a)(2) & 40 CFR 89.112(a); and, Permit No. 0250003-020-AC]
 - c. *24 HP Yanmar Engine.* 7.5 grams per kilowatt hour (g/kW-hr) (5.6 grams per horsepower hour (g/HP-hr)). [40 CFR 60.4205(b), 40 CFR 60.4202(a)(1)(i) & Table 2 of Subpart IIII; and, Permit No. 0250003-020-AC]
- A.5. CO Emissions.** Carbon monoxide (CO) emissions shall not exceed:
- a. *325 HP Caterpillar Engines.* 3.5 g/kW-hr. [40 CFR 60.4205(b), 40 CFR 60.4202(a)(2) & 40 CFR 89.112(a); and, Permit No. 0250003-015-AC]
 - b. *149 HP John Deere Engine.* 5.0 g/kW-hr. [40 CFR 60.4205(b), 40 CFR 60.4202(a)(2) & 40 CFR 89.112(a); and, Permit No. 0250003-020-AC]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 007

- c. *24 HP Yanmar Engine.* 6.6 g/kW-hr (4.9 g/HP-hr). [40 CFR 60.4205(b), 40 CFR 60.4202(a)(1)(i) & Table 2 of Subpart III; and, Permit No. 0250003-020-AC]

A.6. PM Emissions. Particulate matter (PM) emissions shall not exceed:

- a. *325 HP Caterpillar Engines.* 0.2 g/kW-hr. [40 CFR 60.4205(b), 40 CFR 60.4202(a)(2) & 40 CFR 89.112(a); and, Permit No. 0250003-015-AC]
- b. *149 HP John Deere Engine.* 0.3 g/kW-hr. [40 CFR 60.4205(b), 40 CFR 60.4202(a)(2) & 40 CFR 89.112(a); and, Permit No. 0250003-020-AC]
- c. *24 HP Yanmar Engine.* 0.40 g/kW-hr (0.3 g/HP-hr). [40 CFR 60.4205(b), 40 CFR 60.4202(a)(1)(i) & Table 2 of Subpart III; and, Permit No. 0250003-020-AC]

Testing and Compliance Requirements

- A.7. Engine Certification Requirements.** The owner or operator must comply with the emissions standards specified above by having purchased an engine certified by the manufacturer to meet those limits. The engine must have been installed and configured according to the manufacturer's emission-related specifications, except as permitted in Specific Condition **A.8.** [40 CFR 60.4211(c); and, Permit Nos. 0250003-015-AC & 0250003-020-AC]

- A.8. Compliance Requirements Due to Loss of Certification.** If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

- a. *24 HP Yanmar Engine.* You must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.
- b. *325 HP Caterpillar and 149 HP John Deere Engines.* You must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

[40 CFR 60.4211(g)(1) & (2); and, Permit Nos. 0250003-015-AC & 0250003-020-AC]

- A.9. Testing Requirements.** In the event performance tests are required pursuant to Specific Condition **A.8.**, the following requirements shall be met:

- a. *Testing Procedures.* The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F. [Link to Subpart F](#)
- b. *NTE Standards.* Exhaust emissions from these engines must not exceed the not-to-exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in Specific Conditions **A.4.a.** & **b.**, **A.5.a.** & **b.** and **A.6.a.** & **b.**, determined from the following equation:
NTE Requirement For Each Pollutant = (1.25) x (STD) (Eq. 1)

[40 CFR 60.4212(a) & (c); and, Permit Nos. 0250003-015-AC & 0250003-020-AC]

- A.10. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 007

Monitoring Requirements

A.11. Hour Meter. The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 60.4209(a); and, Permit Nos. 0250003-015-AC & 0250003-020-AC]

Records and Reports

A.12. Hours of Operation Records. The owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214; and, Permit Nos. 0250003-015-AC & 0250003-020-AC]

A.13. Maintenance Records. To demonstrate conformance with the manufacturer's written instructions for maintaining the certified engine and to document when compliance testing must be performed pursuant to Specific Condition **A.8.**, the owner or operator must keep the following records:

- a. Engine manufacturer data indicating compliance with the standards.
- b. A copy of the manufacturer's written instructions for operation and maintenance of the certified engine.
- c. A written maintenance log detailing the date and type of maintenance performed on the engine, as well as any deviations from the manufacturer's written instructions.

[Rule 62-213.440(1), F.A.C. and Permit No. 0250003-020-AC]

A.14. Testing Notification. At such time that the requirements of Specific Condition **A.8.** become applicable, the owner or operator shall notify the compliance authority of the date by which the initial compliance test must be performed. [Rule 62-213.440(1), F.A.C. and Permit No. 0250003-020-AC]

A.15. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

General Provisions

A.16. 40 CFR 60 Subpart A, General Provisions. The owner or operator shall comply with the applicable requirements of 40 CFR 60 Subpart A, General Provisions, as specified below. [Link to 40 CFR 60, Subpart A - General Provisions.](#)

General Provisions Citation	Subject of Citation
§ 60.1	General applicability of the General Provisions
§ 60.2	Definitions (see also § 60.4219)
§ 60.3	Units and abbreviations
§ 60.4	Address
§ 60.5	Determination of construction or modification
§ 60.6	Review of plans
§ 60.9	Availability of information
§ 60.10	State Authority
§ 60.12	Circumvention
§ 60.14	Modification
§ 60.15	Reconstruction
§ 60.16	Priority list
§ 60.17	Incorporations by reference
§ 60.19	General notification and reporting requirements

[40 CFR 60.4218; and, Permit Nos. 0250003-015-AC & 0250003-020-AC]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 023

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

ID No.	Emission Unit Description
023	Two Emergency Generators Used to Support The South Dade Meteorological Tower. <ul style="list-style-type: none">• One Onan 21.8 HP South Dade Meteorological Tower Diesel No. 1 Generator• One John Deere 46 HP South Dade Meteorological Tower Diesel No. 2 Generator

Emissions Unit 023 consists of two diesel engine-driven emergency generators used to provide emergency backup power for the plant's South Dade Meteorological Tower. These engines fire ultra low sulfur diesel fuel (0.0015% S).

The following table provides important details for the engines collectively regulated as EU 023:

Engine Identification	Engine Brake HP	Date of Manufacture	Model Year	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
South Dade Met. Tower Diesel Engine No. 1	21.8 (12 kW)	Installed 1962	1962 or earlier	Approximately 0.5	Onan	Unknown
South Dade Met. Tower Diesel Engine No. 2	46 (34.3 kW)	12/30/05 (Installed 5/1/06)	2005	0.61	John Deere	5030

{Permitting Note: The engines in this section collectively regulated as EU 023 were listed in the previous Title V permit as part of EU 007. They have been renumbered for clarity to identify the applicable RICE requirements for the different engines at the facility. As emergency use engines, these units are not subject to the VOC and NO_x RACT requirements contained in Rules 62-296.500 & 570, F.A.C. These compression ignition reciprocating internal combustion engines (CI RICE) are regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE adopted in Rule 62.204.800(11)(b), F.A.C. These RICE are not used for fire pumps. These RICE are exempted from regulations under 40 CFR 60, Subpart IIII - New Source Performance for Stationary Internal Combustion Engines (ICE) based on the manufacturer date. These are "existing" stationary CI RICE less than or equal to 500 HP, with a displacement of less than 10 liters per cylinder that are located at a major source of HAP and that have not been modified or reconstructed after 6/12/2006.}

Essential Potential to Emit (PTE) Parameters

B.1. Hours of Operation.

- Emergency Situations.* There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1)]
- 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 paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
 - Maintenance and Testing.* Each 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)]
 - Emergency Demand Response.* Each 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

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 023

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. 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 nonemergency 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 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)]

B.2. Work or Management Practice Standards.

- a. *Oil.* Change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR 63.6602 & Table 2c.1.a.]
- b. *Air Cleaner.* Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first and replace as necessary. [40 CFR 63.6602 & Table 2c.1.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 63.6602 & Table 2c.1.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 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. [40 CFR 63.6625(h)]
- f. *Oil Analysis.* The owner or operator has the option of using an oil analysis program to extend the oil 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 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 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.3. Hour Meter.** The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]

Compliance

- B.4. Continuous Compliance.** Each unit shall be in compliance with the emission limitations and operating standards in this section at all times. [40 CFR 63.6605(a)]
- B.5. 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

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 023

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.6. Notification, Performance and Compliance Records. The owner or operator must keep:

- a. 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.
- b. Records of the occurrence and duration of each malfunction of operation.
- c. Records of all required maintenance performed on the hour meter.
- d. Records of actions taken during periods of malfunction to minimize emissions in accordance with Specific Condition **B.5.**, including corrective actions to restore malfunctioning process and monitoring equipment to its normal or usual manner of operation.
- e. Records of the actions required in specific condition **B.2.d.** to show continuous compliance with each emission limitation or operating requirement.
- f. Records of the Work or Management Practice Standards specified in Specific Condition **B.2.**
- g. Records of the maintenance conducted in order to demonstrate that the RICE was operated and maintained according to your own maintenance plan.
- h. 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]

B.7. 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.

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

Reporting Requirements

B.8. 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.2.**, 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]

General Provisions

B.9. 40 CFR 63 Subpart A - General Provisions. The owner or operator 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

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 023

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 (additional terms defined in 43 CFR 63.6675)
§63.3	Units and abbreviations
§63.4	Prohibited activities and circumvention
§63.5	Construction and reconstruction
§63.6(a)	Applicability
§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)
§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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Subsection C. Emissions Unit 024

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

ID No.	Emission Unit Description
024	One Emergency Diesel Fire Pump

Emissions Unit 024 consists of a diesel engine-driven emergency fire pump. This engine fires ultra low sulfur diesel fuel.

The following table provides important details for this engine:

Engine Identification	Engine Brake HP	Date of Manufacture	Model Year	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
Emergency Fire Pump	340	1983 (Installed 8/28/1984)	1983	2.3	Cummins	NT 885-F4

{Permitting Note: The engine in this section regulated as EU 024 was listed in the previous Title V permit as part of EU 007. It has been renumbered for clarity to identify the applicable RICE requirements for the different engines at the facility. As an emergency use engine, this unit is not subject to the VOC and NO_x RACT requirements contained in Rules 62-296.500 & 570, F.A.C. This compression ignition reciprocating internal combustion engine (CI RICE) is regulated under 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) adopted in Rule 62.204.800(11)(b), F.A.C. This permit section addresses an “existing” emergency stationary CI RICE fire pump engine less than or equal to 500 HP with a displacement of less than 10 liters per cylinder that is located at a major source of HAPs and that has not been modified or reconstructed after 6/12/2006.}

Essential Potential to Emit (PTE) Parameters

C.1. Hours of Operation.

- Emergency Situations.* There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1)]
- Maintenance and Testing.* This unit 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)]
- 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)(2)(iii)]

Emission Limitations and Operating Requirements

C.2. Work or Management Practice Standards.

- Oil.* Change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR 63.6602 & Table 2c.1.a.]
- Air Cleaner.* Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63.6602 & Table 2c.1.b.]
- Hoses and Belts.* Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63.6602 & Table 2c.1.c.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit 024

- 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) & Table 6.9.].
- 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 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 oil change requirement. The oil analysis must be performed at the same frequency specified for changing the oil in paragraph a., of this condition. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent 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 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

- C.3. Hour Meter.** The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]

Compliance

- C.4. Continuous Compliance.** Each unit shall be in compliance with the emission limitations, operating limitations, and other requirements in this section at all times. [40 CFR 63.6605(a)]
- C.5. 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

- C.6. Notification, Performance and Compliance Records.** The owner or operator must keep:
- a. 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.
 - b. Records of the occurrence and duration of each malfunction of operation.
 - c. Records of all required maintenance performed on the hour meter.
 - d. Records of actions taken during periods of malfunction to minimize emissions in accordance with Specific Condition C.5., including corrective actions to restore malfunctioning process and monitoring equipment to its normal or usual manner of operation.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit 024

- e. Records of the actions required in specific condition **C.2.d.** to show continuous compliance with each emission limitation or operating requirement.
- f. Records of the Work or Management Practice Standards specified in Specific Condition **C.2.**
- g. Records of the maintenance conducted in order to demonstrate that the RICE was operated and maintained according to your own maintenance plan.
- h. 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]

C.7. 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.

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

Reporting Requirements

- C.8. 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 **C.2.** 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]

General Provisions

- C.9. 40 CFR 63 Subpart A - General Provisions.** The owner or operator 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 (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
§63.9(a)	Applicability and State delegation of notification requirements
§63.9(b)(1)–(5)	Initial notifications (Except that §63.9(b)(3) is reserved)
§63.9(i)	Adjustment of submittal deadlines
§63.9(j)	Change in previous information
§63.10(a)	Administrative provisions for recordkeeping/reporting

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit 024

General Provisions Citation	Subject of Citation
§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]

SECTION IV. APPENDICES.

The Following Appendices Are Enforceable As Allowed By Rule Applicability And Are Supporting Documents For The Air Operating Permit

Appendix A, Glossary.
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.
Appendix U, List of Unregulated Emissions Units and/or Activities.