

St. Joseph's Hospital  
Tampa, Florida  
Facility ID No. 0570089  
Hillsborough County

**DRAFT/PROPOSED Title V Air Operation Permit Revision**  
Permit No. 0570089-018-AV

(Revision of Title V Air Operation Permit No. 0570089-016-AV)



**Permitting and Compliance Authority:**

Environmental Protection Commission  
of Hillsborough County  
3629 Queen Palm Drive  
Tampa, FL 33619  
Telephone: (813) 627-2600  
Fax: (813) 627-2660

Title V Air Operation Permit Revision  
Permit No. 0570089-018-AV

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**PERMITTEE:**

St. Joseph's Hospital  
3001 W. Martin Luther King, Jr. Blvd.  
Tampa, FL 33607

DRAFT/PROPOSED Title V Permit No. 0570089-018-AV  
Tampa, Florida  
Facility ID No. 0570089  
Title V Air Operation Permit Revision

The purpose of this permit is to revise the Title V air operation permit for the above referenced facility. The group of medical facilities is located in Hillsborough County at 3001 W. Martin Luther King, Jr. Blvd., Tampa, Florida 33607. UTM Coordinates are: Zone 17, 353.3 km East and 3095.9 km North. Latitude is: 27° 58' 26" North; and, Longitude is: 82° 29' 29" 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, 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Effective Date: DRAFT  
Renewal Application Due Date: October 23, 2017  
Expiration Date: June 25, 2018

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Richard D. Garrity, Ph.D.  
Executive Director

RDG/LAW/law

## SECTION I. FACILITY INFORMATION.

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

This facility (St. Joseph's Hospital) is comprised of a group of medical facilities including St. Joseph's Hospital, St. Joseph's Children's Hospital, and St. Joseph's Women's Hospital. The hospital operations include multiple fuel combustion sources including boilers, natural gas fired generators, emergency generators, hot water heaters, a chiller unit, and a cogenerator.

St. Joseph's Hospital operates three large boilers. Boiler No. 2 is a Cleaver-Brooks, Model No. CB200-300, with a maximum heat input rate of 12.55 MMBTU/hr. Boiler Nos. 3 and 4 are Kewanee, Model No. Classic III Scotch Firetube, with a maximum heat input rate of 12.55 MMBTU/hr each. The boilers are fired primarily on natural gas with No. 2 fuel oil as a backup fuel. Emissions from the boilers are controlled by limits on the fuel usage and sulfur content. These boilers are subject to the requirements from 40 CFR 60 Subpart Dc. However, these boilers are not subject to 40 CFR 63 Subpart JJJJJ, since they meet the definition of gas-fired boiler in the subpart.

The cogeneration plant consists of a single 16.6 MMBtu/hr Fairbanks-Morse, Model No. 38ETDS8 1/8, Serial No. 38E892003TS1S8, spark ignited, natural gas fired two-stroke internal combustion engine, rated at approximately 2,200 HP. The engine is coupled to a Kato 1,710 KW generator. The exhaust gas and engine jacket water pass through heat exchangers to provide steam to supplement boilers and provide hot water for the hospital domestic use. Emissions from the cogeneration unit are controlled by limiting the type of fuel usage to natural gas. The existing cogenerator is subject to the requirements of 40 CFR 63 Subpart ZZZZ.

The chiller system at the main hospital includes four engines that power four different chiller units. Three of the engines are electrically powered, but the fourth engine is fired on natural gas. It is a 4.8 MMBtu/hr Caterpillar Model G3412C spark-ignited four-stroke internal combustion engine that is lean burn and rated at approximately 675 HP. Emissions are controlled by limiting the type of fuel to natural gas and the addition of a GT Exhaust, Model No. OX5314, oxidation catalyst on the engine exhaust. The natural gas-fired chiller engine is subject to the applicable requirements of 40 CFR 63 Subpart ZZZZ.

The two new stationary, natural gas-fired generators are identical Caterpillar, Model No. G3520C, generator sets rated at 2 MW each. The generators are intended to operate as peaking units. The units operate during periods of high electricity demand at the request of the power company in situations that are not emergencies. In addition, the units are able to operate as emergency generators for instances when backup power is necessary due to an interruption in power. Because the units can operate during non-emergency situations, the generators are considered "non-emergency" generators when considering the applicability of the state and federal rules.

The maximum heat input of each generator is 22.2 MMBtu/hr based on the maximum fuel usage rate provided by the manufacturer. Each unit is equipped with a non-selective catalytic reduction (NSCR) system (Model #SP-ZCSI-54x61-20/24-XH2.5B3) on the exhaust portion of the generator to help reduce emissions and ensure compliance with the exhaust limits from the federal rules. The generators are subject to 40 CFR 60 Subpart JJJJ and 40 CFR 63 Subpart ZZZZ.

The four new diesel fired emergency generators are identical Caterpillar, Model No. DM8266, generator sets rated at 2.5 MW each. Each engine associated with the generator set is an identical Caterpillar,

## SECTION I. FACILITY INFORMATION.

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Model No. 3516C, engine with a maximum rating of 3,634 HP. The generators are intended to operate exclusively as emergency generators for instances when backup power is necessary due to an interruption in power. Therefore, the generators are considered “emergency” generators when considering the applicability of the state and federal rules. The generators are subject to 40 CFR 60 Subpart III. Also, these engines are not subject to the requirements of 40 CFR 63 Subpart ZZZZ pursuant to 40 CFR 63.6590(c)(1) since they are classified as new stationary RICEs located at an area source of HAP, and are only required to meet with the requirements of 40 CFR 60 Subpart III.

Also located at the facility is a medical waste processing/sanitation system known as the Vanish System. This system operates by grinding the medical waste in an internal chamber and thereby exposing the waste to temperatures between 275°F - 325°F. The waste material’s volume is significantly reduced during the process. The shredded material exits the system and is considered sanitized per the Florida Department of Health guidelines and is no longer required to be handled as a medical waste. There is no combustion occurring as part of the waste processing system, and the unit is electrically-powered. The finished product is hauled off-site as needed for disposal. The system was determined to be exempt from air permitting on April 3, 2008 and is included in the permit as part of Appendix I (List of Insignificant Emission Units).

Several smaller natural gas-fired boilers and hot water heaters are located throughout the medical complexes. These units are categorically exempt from permitting pursuant to Rule 62-210.300(3)(a)33., F.A.C. and are identified as part of Appendix I.

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

**SECTION I. FACILITY INFORMATION.**

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

<b>EU No.</b>	<b>Brief Description</b>
<i>Regulated Emissions Units</i>	
003	Cogeneration Plant
006	Natural Gas Fired Boiler No. 3
007	Natural Gas Fired Boiler No. 4
008	Natural Gas Fired Boiler No. 2
009	Natural Gas-Fired Generator No. 1 (East)
010	Natural Gas-Fired Generator No. 2 (West)
011	Natural Gas Fired Chiller Engine
013	Four Diesel Fired Emergency Generators

**Subsection C. Applicable Regulations.**

Based on the Title V air operation permit revision application received on September 20, 2013, this facility is NOT a major source of hazardous air pollutants (HAP). Because this facility operates stationary reciprocating and spark ignition internal combustion engines, it is subject to regulation under 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines; 40 CFR 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines; and 40 CFR 63, Subpart ZZZZ – National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines. The boilers are subject to 40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. A summary of applicable regulations is shown in the following table.

<b>Regulation</b>	<b>EU No(s).</b>
40 CFR 60, Subpart A, NSPS General Provisions	006, 007, 008, 009, 010, 013
40 CFR 60, Subpart Dc	006, 007, 008
40 CFR 60, Subpart IIII	013
40 CFR 60, Subpart JJJJ	009, 010
40 CFR 63, Subpart A, NESHAP General Provisions	003, 011
40 CFR 63, Subpart ZZZZ	003, 009, 010, 011
Rule 62-296.406, F.A.C.	006, 007, 008

## SECTION II. FACILITY-WIDE CONDITIONS.

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

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

### **Emissions and Controls**

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

**FW3. General Visible Emissions.** 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 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)1, F.A.C.]

**FW4. 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 or its delegated agent, the Environmental Protection Commission of Hillsborough County. [Rule 62-296.320(1), F.A.C.]

**FW5. Unconfined Particulate Matter (PM).** 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: [Rules 62-296.320(4)(c) and 62-4.070(3), F.A.C.; and Permit No. 0570089-016-AV]

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

## SECTION II. FACILITY-WIDE CONDITIONS.

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- g) Confining abrasive blasting where possible.
- h) In determining what constitutes reasonable precautions for a particular facility, 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.

### **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 1<sup>st</sup> 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 March 1<sup>st</sup> 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 (3)(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: [40 CFR 68]

- 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.

### **Additional Conditions**

**FW10.** When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one. [Rules 62-213.440(1)(b) and 62-4.070(3), F.A.C.]

**FW11. Circumvention.** [Rule 62-210.650, F.A.C. and 40 CFR 60.12]

- a) No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a

## SECTION II. FACILITY-WIDE CONDITIONS.

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standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR 60.12]

- b) No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.

**FW12. Credible Evidence.** For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in 40 CFR 60, nothing in 40 CFR 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. [40 CFR 60.11(g)]

**FW13. Required Stack Sampling Facilities.** When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rules 62-297.310(6) and 62-4.070(3), F.A.C.]

**FW14.** Except for emissions units that are subject to a more stringent notification requirements set forth or established by rule and reflected by conditions in this permit, the permittee shall notify the Air Compliance Section of the Environmental Protection Commission of Hillsborough County at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the contact person who will be responsible for coordinating an having such test conducted. If after the initial notice, there is a delay (due to operational problems, etc) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the EPCHC as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the EPCHC by mutual agreement. [Rules 62-297.310(7)(a)9., F.A.C. and 62-4.070(3), F.A.C.]

**FW15. Special Compliance Tests.** When the Environmental Protection Commission of Hillsborough County (EPC) after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable requirement or permit condition is being violated, it may require the owner or operator of the source to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of said tests to the EPC. [Rules 62-297.310(7)(b) and 62-4.070(3), F.A.C.]

**FW16.** At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the EPCHC which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [40 CFR 60.11(d)]

**FW17.** 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 EPCHC for longer duration. [Rule 62-210.700(1), F.A.C.]

## SECTION II. FACILITY-WIDE CONDITIONS.

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**FW18.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

**FW19.** The owner or operator subject to the provisions of 40 CFR 60 shall furnish the EPCHC written notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and Final emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The EPCHC may request additional relevant information subsequent to this notice. [40 CFR 60.7(a)(4) and 62-4.070(3), F.A.C.]

**FW20.** The use of property, facilities, equipment, processes, products, or compounds, or the commission of paint overspraying or any other act, that causes or materially contributes to a public nuisance is prohibited. [Hillsborough County Environmental Protection Act, Section 16, Chapter 84-446, Laws of Florida, as Amended.]

**FW21.** The permittee shall provide timely notification to the Environmental Protection Commission of Hillsborough County prior to implementing any changes that may result in a modification to this permit pursuant to Rule 62-210.200, F.A.C., Modification. This notice shall be resubmitted timely and in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and, the anticipated completion date of the change. The changes do not include normal maintenance, but may include, and are not limited to, the following, and may also require prior authorization before implementation: [Rules 62-210.300 and 62-4.070(3), F.A.C.]

- a) Alteration or replacement of any equipment\* or major component of such equipment listed in the Process Description.
- b) Installation or addition of any equipment\* which is a source of air pollution.

\*Not applicable to routine maintenance, repair, or replacement of component parts of an air emissions unit.

**FW22.** The following shall not, by themselves, be considered modifications to units regulated under 40 CFR 60: [40 CFR 60.14(e)]

- a) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of 40 CFR 60.14(c) and 40 CFR 60.15.
- b) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.
- c) An increase in the hours of operation, unless specifically limited by permit condition.
- d) Use of an alternative fuel or raw material if, prior to the date any standard under 40 CFR 60 becomes applicable to that source type, as provided by 40 CFR 60.1, the existing facility was

## SECTION II. FACILITY-WIDE CONDITIONS.

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designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.

- e) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the EPCHC determines to be less environmentally beneficial.
- f) The relocation or change in ownership of an existing facility.

**FW23.** If the permittee wishes to transfer this permit to another owner, an "Application for Transfer of Permit" (DEP Form 62-210.900(7)) shall be submitted, in duplicate, to the Environmental Protection Commission of Hillsborough County within 30 days after the sale or legal transfer of the permitted facility. [Rule 62-4.120, F.A.C.]

**FW24.** Any reports, data, notifications, certifications, and requests required to be sent to the Environmental Protection Commission of Hillsborough County shall be sent to:

Environmental Protection Commission of Hillsborough County  
Air Management Division  
3629 Queen Palm Drive  
Tampa, FL 33619

**FW25.** Any reports, data, notifications, certifications and requests required to be sent to the United States Environmental Protection Agency Region 4 should be sent to:

United States Environmental Protection Agency  
Region 4  
Air, Pesticides and Toxics Management Division  
Air and EPCRA Enforcement Branch  
Air Enforcement Section  
61 Forsyth Street  
Atlanta, Georgia 30303-8960  
Telephone: 404/562-9155; Fax: 404/562-9163

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

**Subsection A. Emissions Unit 003**

**The specific conditions in this section apply to the following emissions unit(s):**

<b>EU No.</b>	<b>Brief Description</b>
003	Cogeneration Plant

The cogeneration plant consists of a single 16.6 MMBtu/hr Fairbanks-Morse, Model No. 38ETDS8 1/8, Serial No. 38E892003TS1S8, spark ignited, natural gas-fired two-stroke lean burn (2SLB) internal combustion engine, rated at approximately 2,200 HP. The engine is coupled to a Kato 1,710 KW generator. The exhaust gas and engine jacket water pass through heat exchangers to provide steam to supplement boilers and provide hot water for the hospital domestic use. Emissions from the cogeneration unit are controlled by limiting the type of fuel usage to natural gas. The cogenerator is subject to Subpart ZZZZ of 40 CFR 63, National Emission Standards for Hazardous Air Pollutants (NESHAP). The cogenerator is also subject to Rule 62-296.320, F.A.C.

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

**A.1. Permitted Capacity.** The maximum natural gas usage rate is 138.5 MMft<sup>3</sup>/yr. (based on 16.6 MMBTU/hr and 1050 BTU/ft.<sup>3</sup>). [Rules 62-4.070(3) F.A.C., and Permit No. 0570089-016-AV]

**A.2. Methods of Operation.** The cogeneration unit shall only be fired on natural gas. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C., and Permit AC29-184724]

**A.3. Hours of Operation.** This emissions unit is allowed to operate for a maximum of 7,670 hours/year. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C., and Permit No. 0570089-016-AV]

**Emission Limitations and Standards**

*[Permit Note: Notwithstanding the emission limitations stated in this section, additional limits and requirements from 40 CFR 63 (Subpart ZZZZ) are specified in the last section of Subsection A.]*

**A.4.** In order to limit the potential to emit, the nitrogen oxide emissions shall not exceed 27.9 ton/yr. [Rules 62-4.070(3), F.A.C.; and Permit Nos. AC29-184724 and 0570089-016-AV]

**A.5.** In order to limit the potential to emit, the carbon monoxide emissions shall not exceed 63.7 ton/yr. [Rule 62-4.070(3), F.A.C. and Permit Nos. AC29-184724 and 0570089-016-AV]

**A.6.** In order to limit the potential to emit, the volatile organic compound (VOC) emissions shall not exceed 24.2 ton/yr. [[Rule 62-4.070(3), F.A.C. and Permit Nos. AC29-184724 and 0570089-016-AV]

**A.7.** Visible emissions from the cogeneration unit shall not exceed 20% opacity. [Rule 62-296.320(4)(b)(1), F.A.C. and Chapter 1-3.52.1, Rules of the EPC]

**Test Methods and Procedures**

*[Permit Note: Notwithstanding the test requirements stated in this section, additional limits and requirements from 40 CFR 63 (Subpart ZZZZ) are specified in the last section of Subsection A.]*

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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### Subsection A. Emissions Unit 003

**A.8. Compliance Tests Prior To Renewal.** Test the cogeneration unit engine exhaust for NO<sub>x</sub>, CO and VOC emissions no later than 60 days prior to the renewal application due date of this permit. [Rules 62-4.070(3) and 62-297.310(7)(a)3., F.A.C.]

**A.9. Annual Compliance Tests Required.** Test the cogeneration unit engine exhaust for visible emissions at least once per federal fiscal year (October 1 – September 30). The visible emission test observation period shall be at least 30 minutes. [Rules 62-297.310(4)(a)2. and (7)(a)4., F.A.C.; and Chapter 1-3.52.3, Rules of the EPC]

**A.10. Test Methods.** Compliance with the emission limitations in Specific Condition Nos. A.4., A.5., A.6. and A.7. shall be performed in accordance with EPA Methods 7 or 7E, 18 or 25A, 9, and 10 contained and described in 40 CFR 60, Appendix A and adopted by reference in Rule 62-204.800, F.A.C. The minimum requirements for stack sampling facilities, source sampling, and reporting shall be in accordance with Rule 62-297.310(6), F.A.C. If the permittee elects to use EPA Method 18 in lieu of EPA Method 25A, only the direct interface or dilution interface (real time sampling) methods shall be used. Two copies of the test data shall be submitted to the Air Management Division of the Environmental Protection Commission of Hillsborough County office within 45 days of such testing. [Rule 62-297.310, F.A.C.]

**A.11. Testing Conditions.** Emissions testing of the cogeneration unit shall be accomplished when the unit is operating within 90 - 100% of the maximum allowable fuel usage rate of 15,810 ft<sup>3</sup>/hr of natural gas. If it is impractical to test at this rate, the unit may be tested at less than the maximum permitted capacity; in this case, subsequent operation of the unit is limited to 110 percent of the tested fuel usage rate until a new test is conducted. Once this unit is so limited, operation at a higher fuel usage is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Testing at conditions which are not representative of normal operating conditions may invalidate the test. [Rules 62-297.310(2) and 62-4.070(3), F.A.C.]

**A.12. 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.]

### **Recordkeeping and Reporting Requirements**

**A.13. Recordkeeping.** In order to provide reasonable assurance of compliance with Specific Condition Nos. A.1 and A.3, the permittee shall maintain monthly and yearly records for the natural gas usage and hours of operation of the cogenerator. The permittee shall retain the records for the most recent 5 year period. Upon request, the records shall be made available to the Environmental Protection Commission of Hillsborough County, state, or federal air pollution agency for inspection. The records shall include, but not limited to, the following: [Rules 62-4.070(3) and 62-213.440(1)(b)2.b., F.A.C.]

- a) Monthly natural gas usage
- b) Monthly hours of operation
- c) Rolling 12-month total of (1) and (2) above

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

**Subsection A. Emissions Unit 003**

**A.14. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for any additional reporting requirements.

**Cogenerator - 40 CFR 63 Requirements**

*[Permit Note: As long as the cogenerator continues to operate in situations wherein primary power is still available, the cogenerator is considered a “non-emergency” generator and is therefore subject to 40 CFR 63 – Subpart ZZZZ and the associated requirements below. If the cogenerator’s operation changes such that it only operates in “emergency” situations consistent with the definition from 40 CFR 63.6675, then it does not have to meet the requirements of Subpart ZZZZ pursuant to 40 CFR 63.6590(b)(3) since it could be classified as an institutional emergency generator, and thereby could also possibly qualify for exemption from permitting as an emergency generator pursuant to Rule 62-210.300(3)(a)35, F.A.C. Records documenting such operation, along with evidence that it meets the operating requirements to qualify as an emergency generator, must be maintained and made available as needed.]*

**A.15.** Notwithstanding the specific requirements from NESHAP detailed in this permit, these emissions units shall comply with all applicable requirements of 40 CFR 63 Subpart ZZZZ, incorporated by reference. [Rules 62-4.030, 62-4.070(3) and 62-204.800(11), F.A.C.]

**A.16.** Notwithstanding the specific requirements from NESHAP detailed in this permit, these emissions units shall comply with all applicable requirements of 40 CFR 63 Subpart A, incorporated by reference. [Rules 62-4.030, 62-4.070(3) and 62-204.800(11), F.A.C.]

**A.17.** As an existing stationary non-emergency RICE (reciprocating internal combustion engine) located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations of 40 CFR 60 – Subpart ZZZZ no later than October 19, 2013. [40 CFR 63.6595(a)]

*[Permit Note: Based on information provided by the permittee on November 7, 2012, the cogenerator is a two-stroke lean burn (2SLB) engine with spark ignition (SI), and rated at approximately 2,200 HP. The conditions below only reflect the requirements from Subpart ZZZZ for 2SLB engines with SI.]*

**A.18.** You must comply with the requirements in Table 2d of Subpart ZZZZ that apply to you, as summarized below: [40 CFR 63.6603(a)]

<b>For each . . .</b>	<b>You must meet the following requirement, except during periods of startup . . .</b>
Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; <sup>1</sup>
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary; and
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.

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

#### Subsection A. Emissions Unit 003

<sup>1</sup> Sources have the option to utilize an oil analysis program as described in 40 CFR 60.6625(j) in order to extend the specified oil change requirement in Table 2d of Subpart ZZZZ.

**A.19.** The following general requirements apply for compliance with Subpart ZZZZ: [40 CFR 63.6605]

- a) You must be in compliance with the emission limitations, operating limitations, and other requirements in Subpart ZZZZ that apply to you at all times.
- b) At all times you 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. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator 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.

**A.20.** The following monitoring, installation, collection, operation, and maintenance requirements must be followed, as applicable: [40 CFR 63.6625]

- a) You must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop 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
- b) Since you operate an existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d of Subpart ZZZZ apply.
- c) Since you operate a stationary SI engine that is subject to the work, operation or management practices in item 6 of Table 2d to Subpart ZZZZ, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid 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 business 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 business 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

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

**Subsection A. Emissions Unit 003**

changes for the engine. The analysis program must be part of the maintenance plan for the engine.

**A.21.** As applicable, the permittee shall monitor and collect data to demonstrate continuous compliance as follows: [40 CFR 63.6635]

- a) Since you must comply with emission and operating limitations, you must monitor and collect data according to this section.
- b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- c) 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.

**A.22.** As applicable, the permittee shall demonstrate continuous compliance with the emission limitations, and other requirements as follows: [40 CFR 63.6640]

- a) You must demonstrate continuous compliance with each operating limitation specified in this permit as applicable according to methods specified in Table 6 of Subpart ZZZZ, which is summarized as follows:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
Existing non-emergency 2SLB stationary RICE located at an area source of HAP	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. 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.

- b) You must report each instance in which you did not meet each operating limitation or other requirement in this permit that applies to you. These instances are deviations from the operating limitations in this Subpart ZZZZ. These deviations must be reported according to the requirements in 40 CFR 60.6650.
- c) You must also report each instance in which you did not meet the requirements in Table 8 of Subpart ZZZZ that apply to you.

**A.23.** The following notifications must be submitted to the regulating authority: [40 CFR 63.6645]

- a) You must submit all of the notifications in 40 CFR 40 CFR 60.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that are applicable to this engine.

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

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**Subsection A. Emissions Unit 003**

**A.24.** The following records must be maintained: [40 CFR 63.6655]

- a) You must keep the records described in paragraphs (a)(i) through (a)(v), and (e) below:
  - i. A copy of each notification and report that you submitted to comply with Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR 60.10(b)(2)(xiv).
  - ii. Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.
  - iii. Records of performance tests and performance evaluations (if applicable) as required in 40 CFR 60.10(b)(2) (viii).
  - iv. Records of all required maintenance performed on the air pollution control and monitoring equipment.
  - v. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 60.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

b) – d) [Reserved.]

e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE.

**A.25.** Records must be maintained as follows: [40 CFR 63.6660]

- a) Your records must be in a form suitable and readily available for expeditious review according to 40 CFR 60.10(b)(1).
- b) As specified in 40 CFR 60.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- c) 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 40 CFR 60.10(b)(1).

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

**Subsection B. Emissions Units 006, 007, 008**

**The specific conditions in this section apply to the following emissions unit(s):**

<b>EU No.</b>	<b>Brief Description</b>
006	Natural Gas Fired Boiler No. 3
007	Natural Gas Fired Boiler No. 4
008	Natural Gas Fired Boiler No. 2

St. Joseph’s Hospital operates three large boilers. Boiler No. 2 is a Cleaver-Brooks, Model No. CB200-300, with a maximum heat input rate of 12.55 MMBTU/hr. Boiler Nos. 3 and 4 are Kewanee, Model No. Classic III Scotch Firetube, with a maximum heat input rate of 12.55 MMBTU/hr. each. The boilers are fired primarily on natural gas with No. 2 fuel oil as a backup fuel. Emissions from the boilers are controlled by limits on the fuel usage and sulfur content. The boilers are subject to the requirements from 40 CFR 60 – Subpart Dc and Rule 62-296.406, F.A.C.

**Essential Potential to Emit (PTE) Parameters and Emission Limitations**

**B.1. Permitted Capacity.** In order to limit the potential to emit, the following restrictions and limitations shall apply for any consecutive twelve month period: [Rules 62-4.070(3) and 62-210.300 – Potential to Emit, F.A.C.; BACT Determinations dated March 21, 2001 and April 7, 2004; and Permit Nos. 0570089-009-AC and 0570089-012-AC]

- a) The maximum usage rate per boiler of natural gas is 105 MMft<sup>3</sup>/yr minus (0.14 times Q\*).
- b) The maximum usage rate per boiler of new No. 2 fuel oil is 35.9 Mgals/yr.
- c) Fuel oil shall not be fired for more than 400 hours per boiler.

[Permitting Note: Q\* = Mgal of oil burned in previous 12 consecutive months.]

**B.2. Methods of Operation.** Boiler Nos. 2, 3 and 4 shall be fired only on natural gas with new No. 2 fuel oil as a back-up fuel. The term “new” oil means an oil that has been refined from crude oil and has not been used, and which may or may not contain additives. The firing of waste or recycled oil is disallowed. [Rules 62-4.070(3) and 62-210.300 – Potential to Emit, F.A.C.; BACT Determinations dated March 21, 2001 and April 7, 2004; and Permit Nos. 0570089-002-AC, 0570089-009-AC and 0570089-012-AC]

**B.3. Hours of Operation.** Aside from the limit on hours while firing fuel oil from Specific Condition No. B.1, the boiler's hours of operation are not restricted, 8,760 hours/yr. [Rules 62-4.070(3), 62-4.160(2) and 62-210.200(PTE), F.A.C.]

**Emission Limitations and Standards**

**B.4.** The amount of sulfur dioxide emissions from the boilers shall be limited by the firing of natural gas or new No.2 fuel oil with a maximum sulfur content not to exceed 0.05% by weight. [Rule 62-296.406(3), F.A.C. and BACT Determinations dated March 21, 2001 and April 7, 2004, and Permit Nos. 0570089-009-AC and 0570089-012-AC]

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

#### Subsection B. Emissions Units 006, 007, 008

**B.5.** Visible emissions from each boiler shall not exceed 20% opacity except for one six-minute period per hour during which opacity shall not exceed 27%. [Rule 62-296.406(1), F.A.C.; Permit Nos. 0570089-009-AC and 0570089-012-AC; and Chapter 1-3.52.1, Rules of the EPC]

**B.6.** The opacity standard in Condition No. B.5. applies at all times, except during periods of startup, shutdown, or malfunction. [40 CFR 60.43c(d)]

#### **Test Methods and Procedures**

**B.7.** Annual Compliance Tests Required. Test all three boilers for visible emissions once per federal fiscal year (October 1 – September 30). The visible emission test observation period shall be at least 60 minutes. [Rules 62-297.310(4)(a)2. and (7)(a)4., F.A.C.; and Chapter 1-3.52.3, Rules of the EPC]

**B.8.** Test Methods. Compliance with the emission limitations in Specific Condition No. B.5 shall be performed in accordance with EPA Method 9 contained and described in 40 CFR 60, appendix A and adopted by reference in Rule 62-204.800, F.A.C. The minimum requirements for stack sampling facilities, source sampling, and reporting shall be in accordance with Rule 62-297.310(6), F.A.C. Two copies of the test data shall be submitted to the Air Management Division of the Environmental Protection Commission of Hillsborough County office within 45 days of such testing. [Rule 62-297.310, F.A.C.]

**B.9.** Testing Conditions. Emissions testing of each boiler shall be accomplished when the unit is operating within 90 - 100% of the maximum allowable fuel usage rate of 11950 ft<sup>3</sup>/hr of natural gas or 89.6 gal/hr of No. 2 fuel oil. If it is impractical to test at this rate, the boiler may be tested at less than the maximum permitted capacity; in this case, subsequent operation of the boiler is limited to 110 percent of the tested fuel usage rate until a new test is conducted. Once this boiler is so limited, operation at a higher fuel usage is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Testing at conditions which are not representative of normal operating conditions may invalidate the test. [Rules 62-297.310(2) and 62-4.070(3), F.A.C.]

**B.10.** The compliance test report shall include the following: Rules 62-4.070(3) and 62-297.310(8), F.A.C.]

- a) The actual type of fuel and fuel usage rate during the test period.
- b) A copy of the records required by Condition No. B.13., which includes, if fuel oil was fired during the test, the most recent documentation of the fuel oil's sulfur content.
- c) Failure to submit this data or actual operating conditions may invalidate the test.

**B.11.** 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.]

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## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection B. Emissions Units 006, 007, 008

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#### **Recordkeeping and Reporting Requirements**

**B.12. Recordkeeping.** In order to provide reasonable assurance of compliance with Specific Condition No. B.1, the permittee shall maintain fuel usage records for the boilers. The permittee shall retain the records for the most recent 5 year period. Upon request, the records shall be made available to the Environmental Protection Commission of Hillsborough County, state, or federal air pollution agency for inspection. The records shall include, but not limited to, the following: [40 CFR 60.48c(g) and (i); and Rules 62-4.070(3) and 62-213.440(1)(b)2.b., F.A.C.]

- a) Month and Year
- b) Daily hours of operation of the boiler while firing on fuel oil
- c) Daily summary of fuel oil usage
- d) Monthly summary of the natural gas and fuel oil usage
- e) Monthly summary of hours of operation using either fuel
- f) Rolling twelve (12) month total of natural gas and fuel oil usage

**B.13.** The permittee shall comply with the following for each boiler:

- a) Pursuant to 40 CFR 60.48c NSPS Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units), the permittee is required to maintain daily records of the hours of operation and amount of natural gas combusted in the boiler. If the most recent visible emissions test was conducted within 90 - 100% of the maximum allowable natural gas usage rate and since none of the emission limits in Subpart Dc are applicable to the boiler when firing natural gas, it has been determined by the Department that keeping records for natural gas usage and hours of operation on a monthly rather than daily basis is adequate for the purpose of verifying the periods that only natural gas is burned in this boiler. These records shall be recorded in a permanent form suitable for inspection upon request and shall be retained for at least a 5 year period from the date of such recording. [Rule 62-4.070(3), F.A.C., and 40 CFR 60.48c(g) and (i)]
- b) The permittee shall maintain a daily record of the hours of operation and quantity of fuel oil used in the boiler for each day the boiler fired on fuel oil. These records shall be recorded in a permanent form suitable for inspection upon request, and shall be retained for at least a 5 year period from the date of such recording. [Rule 62-4.070(3), F.A.C., and 40 CFR 60.48c(g) and 60.48c(i)]
- c) Ongoing compliance with the fuel oil's 0.05%, by weight, sulfur content limitation shall be demonstrated through either:
  - i. Fuel supplier documentation of the fuel oil sulfur content for each shipment of oil delivered for use in the boiler per 40 CFR 60.48c(f). The records shall include a "fuel supplier certification" consisting of the name of the oil supplier and a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c.
  - ii. Actual fuel oil analysis per 40 CFR 60.60c(d)(2). Fuel sampling and analysis shall be in accordance with 40 CFR 60 Appendix A.

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

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#### Subsection B. Emissions Units 006, 007, 008

iii. These records shall be recorded in a permanent form suitable for inspection upon request, and shall be retained for at least a 2 year period. [Rules 62-4.070(3), and 62-204.800, F.A.C., and 40 CFR 60.46c(e), 60.48c(e)(11), 60.48c(f) and 60.48c(i)]

d) The permittee shall submit for the boilers semi-annual reports of the fuel oil supplier sulfur content certification records required by Condition C.11.(c) for any reporting period during which fuel oil is fired. In addition to the above, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. The semi-annual reports shall be submitted to the EPCHC within 30 days of the end of the six-month period being reported. [40 CFR 60.48c(d), (e), and(f)]

**B.14.** The permittee shall comply with the following requirements: [Rule 62-204.800, F.A.C.]

a) The permittee shall furnish the EPC written notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The EPC may request additional relevant information subsequent to this notice. [40 CFR 60.7(a)(4)]

b) The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]

c) Any owner or operator subject to the provisions of 40 CFR 60 Subpart A shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR 60 Subpart A recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records. [40 CFR 60.(e)(3)]

d) No owner or operator subject to the provisions of 40 CFR 60 Subpart A shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR 60.12]

**B.15.** Determination of Process Variables. [Rule 62-297.310(5), F.A.C.]

a) Required Equipment. The Permittee shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input,

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

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**Subsection B. Emissions Units 006, 007, 008**

when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

- b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

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

**Subsection C. Emissions Unit 011**

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

<b>EU No.</b>	<b>Brief Description</b>
011	Natural Gas-Fired Chiller Engine

The chiller system at the main hospital includes four engines that power four different chiller units. Three of the engines are electrically powered, but the fourth engine is fired on natural gas. It is a 4.8 MMBtu/hr Caterpillar Model G3412C spark ignited internal combustion four stroke engine that is lean burn and rated at approximately 675 HP. Emissions are controlled by limiting the type of fuel usage to natural gas and the use of GT Exhaust, Model No. OX5314, oxidation catalyst. The natural gas chiller engine is subject to Subpart ZZZZ of 40 CFR 63, National Emission Standards for Hazardous Air Pollutants (NESHAP). The chiller engine is also subject to Rule 62-296.320, F.A.C.

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

**C.1. Permitted Capacity.** The maximum natural gas usage rate is 40.0 MMft<sup>3</sup>/yr. (4.8 MMBTU/hr based on 1050 BTU/ft<sup>3</sup>). [Rule 62-4.070(3) F.A.C. and Permit No. 0570089-016-AV]

**C.2. Methods of Operation.** The chiller engine shall only be fired on natural gas. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C., and Permit No. 0570089-016-AV]

**C.3. Hours of Operation.** This emissions unit is allowed to operate continuously (i.e. 8,760 hours/year). [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C., and Permit No. 0570089-016-AV]

**Emission Limitations and Standards**

*[Permit Note: Notwithstanding the emission limitations stated in this section, additional limits and requirements from 40 CFR 63 (Subpart ZZZZ) are specified in the last section of Subsection C.]*

**C.4.** Visible emissions from the chiller engine shall not exceed 20% opacity. [Rule 62-296.320(4)(b)(1), F.A.C.; and Chapter 1-3.52.1, Rules of the EPC]

**Test Methods and Procedures**

*[Permit Note: Notwithstanding the test requirements stated in this section, additional limits and requirements from 40 CFR 63 (Subpart ZZZZ) are specified in the last section of Subsection C.]*

**C.5. Annual Compliance Tests Required.** Test the chiller engine exhaust for visible emissions once per federal fiscal year (October 1 – September 30). The visible emission test observation period shall be at least 30 minutes. [Rules 62-297.310(4)(a)2. and (7)(a)4., F.A.C.; and Chapter 1-3.52.3, Rules of the EPC]

**C.6. Test Methods.** Compliance with the emission limitation in Specific Condition No. C.4 shall be performed in accordance with EPA Method 9 contained and described in 40 CFR 60, appendix A and adopted by reference in Rule 62-204.800, F.A.C. The minimum requirements for stack sampling facilities, source sampling, and reporting shall be in accordance with Rule 62-297.310(6), F.A.C. Two

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection C. Emissions Unit 011

copies of the test data shall be submitted to the Air Management Division of the Environmental Protection Commission of Hillsborough County office within 45 days of such testing. [Rule 62-297.310, F.A.C.]

**C.7. Testing Conditions.** Emissions testing of the chiller engine shall be accomplished when the unit is operating within 90 - 100% of the maximum allowable fuel usage rate of 4,571 ft<sup>3</sup>/hr of natural gas. If it is impractical to test at this rate, the unit may be tested at less than the maximum permitted capacity; in this case, subsequent operation of the unit is limited to 110 percent of the tested fuel usage rate until a new test is conducted. Once this unit is so limited, operation at a higher fuel usage is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Testing at conditions which are not representative of normal operating conditions may invalidate the test. [Rules 62-297.310(2) and 62-4.070(3), F.A.C.]

**C.8. 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.]

#### **Recordkeeping and Reporting Requirements**

**C.9. Recordkeeping.** In order to provide reasonable assurance of compliance with Specific Condition Nos. C.1 and C.3, the permittee shall maintain monthly and yearly records for the gas usage and hours of operation of the chiller engine. The permittee shall retain the records for the most recent 5 year period. Upon request, the records shall be made available to the Environmental Protection Commission of Hillsborough County, state, or federal air pollution agency for inspection. The records shall include, but not limited to, the following: [Rules 62-4.070(3) and 62-213.440(1)(b)2.b., F.A.C.]

- a) Monthly natural gas usage
- b) Monthly hours of operation
- c) Rolling 12-month total of (1) and (2) above

**C.10. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for any additional reporting requirements.

#### **Chiller Engine - 40 CFR 63 Requirements**

*[Permit Note: As long as the chiller engine continues to operate in situations wherein primary power is still available, the chiller engine is considered a "non-emergency" engine and is therefore subject to 40 CFR 63 – Subpart ZZZZ and the associated requirements below. If the chiller engine's operation changes such that it only operates in "emergency" situations consistent with the definition from 40 CFR 63.6675, then it does not have to meet the requirements of Subpart ZZZZ pursuant to 40 CFR 63.6590(b)(3) since it could be classified as an institutional emergency engine, and thereby could also possibly qualify for exemption from permitting as an emergency engine pursuant to Rule 62-210.300(3)(a)35, F.A.C. Records documenting such operation, along with evidence that it meets the operating requirements to qualify as an emergency engine, must be maintained and made available upon request.]*

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

**Subsection C. Emissions Unit 011**

**C.11.** Notwithstanding the specific requirements from the NESHAP detailed in this permit, these emissions units shall comply with all of the applicable requirements of 40 CFR 63 Subpart ZZZZ, incorporated by reference. [Rules 62-4.030, 62-4.070(3) and 62-204.800(11), F.A.C.]

**C.12.** Notwithstanding the specific requirements from the NESHAP detailed in this permit, these emissions units shall comply with all of the applicable requirements of 40 CFR 63 Subpart A, incorporated by reference. [Rules 62-4.030, 62-4.070(3) and 62-204.800(11), F.A.C.]

**C.13.** [Reserved]

**C.14.** You must comply with the requirements in Table 2d of Subpart ZZZZ and the operating limitations in Table 2b of Subpart ZZZZ that apply to you, as summarized below: [40 CFR 63.6603(a)]

<b>For each . . .</b>	<b>You must meet the following requirement, except during periods of startup . . .</b>
Non-emergency, non-black start 4SLB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install an oxidation catalyst to reduce HAP emissions from the stationary RICE.

**C.15.** The following general requirements apply for compliance with Subpart ZZZZ: [40 CFR 63.6605]

- a) You must be in compliance with the emission limitations, operating limitations, and other requirements in Subpart ZZZZ that apply to you at all times.
- b) At all times you 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. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator 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.

**C.16.** You must **conduct an initial performance test** and other initial compliance demonstration according to Tables 4 and 5 of Subpart ZZZZ (as summarized below) that apply to you within 180 days after the compliance date that is specified for your stationary RICE in 40 CFR 60.6595 (October 19, 2013) and according to the provisions in 40 CFR 60.7(a)(2). The requirements for performance tests are as follows: [40 CFR 63.6612]

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<b>For each ...</b>	<b>Complying with the requirement to . ..</b>	<b>You must ...</b>	<b>Using ...</b>	<b>According to the following requirements . ..</b>
1. 4SLB stationary RICE	a. Reduce CO emissions	i. Measure the O <sub>2</sub> at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR Part 60, Appendix A, or ASTM Method D6522-00 (Re- approved 2005). <sup>a c</sup>	(a) Measurements to determine O <sub>2</sub> must be made at the same time as the measurements for CO concentration.
		ii. Measure the CO at the inlet and the outlet of the control device	(1) ASTM D6522-00 (Re-approved 2005) <sup>a b c</sup> or Method 10 of 40 CFR Part 60, Appendix A.	(a) The CO concentration must be at 15 percent O <sub>2</sub> , dry basis.
2. Stationary RICE	a. Limit the concentration of CO in the stationary RICE exhaust	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR Part 60, Appendix A 40 CFR 60.7(d)(1)(i)	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O <sub>2</sub> concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR Part 60, Appendix A, or ASTM Method D6522-00 (Re- approved 2005). <sup>a</sup>	(a) Measurements to determine O <sub>2</sub> concentration must be made at the same time and location as the measurements for CO concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR Part 60, Appendix A, or Test Method 320 of 40 CFR Part 63, Appendix A, or ASTM D 6348- 03. <sup>a</sup>	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for CO concentration.
		iv. Measure CO at the exhaust of the stationary RICE	(1) Method 10 of 40 CFR Part 60, Appendix A, ASTM Method D6522- 00 (2005), <sup>a c</sup> Method 320 of 40 CFR Part 63, Appendix A, or ASTM D6348-03. <sup>a</sup>	(a) CO Concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

<sup>a</sup> Incorporated by reference, see 40 CFR 63.14. You may also obtain copies from University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

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<sup>b</sup> You may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03.

<sup>c</sup> ASTM-D6522-00 (2005) may be used to test both CI and SI stationary

The requirements for initial compliance with emission limitations, operating limitations, and other requirements are as follows:

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year.	a. Install an oxidation catalyst	i. You have conducted an initial compliance demonstration as specified in 40 CFR 63.6630(e) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O <sub>2</sub> ;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in 40 CFR 63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350 °F.

**C.17. [RESERVED]**

**C.18.** The following performance tests and other performance tests must be used: [40 CFR 63.6620]

- a) You must conduct each performance test in Table 4 of Subpart ZZZZ that applies to you.
- b) Each performance test must be conducted according to the requirements that Subpart ZZZZ specifies in Table 4 to Subpart ZZZZ.
- c) [Reserved]
- d) You must conduct three separate test runs for each performance test required in this section, as specified in 40 CFR 63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in this subpart.
- e) 1. You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

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

Where:

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

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

R = percent reduction of CO emissions.

- 2. You must normalize the CO concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO<sub>2</sub>). If

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pollutant concentrations are to be corrected to 15 percent oxygen and CO<sub>2</sub> concentration is measured in lieu of oxygen concentration measurement, a CO<sub>2</sub> correction factor is needed. 3. Calculate the CO<sub>2</sub> correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

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

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

Where:

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

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

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

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

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

$$X_{CO_2} = 5.9 / F_o \quad (\text{Eq. 3})$$

Where:

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

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

- h) Calculate the CO gas concentrations adjusted to 15 percent O<sub>2</sub> using CO<sub>2</sub> as follows:

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

Where:

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

C<sub>d</sub> = Measured concentration of CO, uncorrected.

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

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

- i) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.
- j) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (j)(1) through (5) of this section.
1. Identification of the specific parameters you propose to use as operating limitations;
  2. A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;
  3. A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

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4. A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
  5. A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.
- k) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (k)(1) through (7) of this section.
1. Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (*e.g.*, operator adjustment, automatic controller adjustment, etc.) or unintentionally (*e.g.*, wear and tear, error, etc.) on a routine basis or over time;
  2. A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;
  3. For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;
  4. For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;
  5. For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;
  6. For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and
  7. A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.
- l) 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.

**C.19.** The following monitoring, installation, collection, operation, and maintenance requirements must be followed, as applicable: [40 CFR 63.6625]

- a) [RESERVED]
- b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of Subpart ZZZZ, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (6) of this section.

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- 1) 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 (b)(1)(i) through (v) of this section 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 (b)(1) through (5) of this section in your site-specific monitoring plan.
  - i. The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;
  - ii. Sampling interface (*e.g.*, thermocouple) location such that the monitoring system will provide representative measurements;
  - iii. Equipment performance evaluations, system accuracy audits, or other audit procedures;
  - iv. Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR 60.8(c)(1)(ii) and (c)(3); and
  - v. Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR 60.10(c), (e)(1), and (e)(2)(i).
- 2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.
- 3) The CPMS must collect data at least once every 15 minutes (see also 40 CFR 60.6635).
- 4) 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.
- 5) 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.
- 6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

c) – g) [Reserved]

h) Since you operate an existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d of Subpart ZZZZ apply.

**C.20.** Initial compliance with the emission limitations and operating limitations shall be demonstrated as follows: [40 CFR 63.6630]

- a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of Subpart ZZZZ.
- b) During the initial performance test, you must establish each operating limitation in Table 2b of Subpart ZZZZ that applies to you.

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- c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 CFR 60.6645.
- d) [RESERVED]
- e) The initial compliance demonstration required for existing non-emergency 4SLB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:
  - i. The compliance demonstration must consist of at least three test runs.
  - ii. Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.
  - iii. If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.
  - iv. [RESERVED]
  - v. You must measure O<sub>2</sub> using one of the O<sub>2</sub> measurement methods specified in Table 4 of this subpart. Measurements to determine O<sub>2</sub> concentration must be made at the same time as the measurements for CO concentration.
  - vi. If you are demonstrating compliance with the CO percent reduction requirement, you must measure CO emissions and O<sub>2</sub> emissions simultaneously at the inlet and outlet of the control device.

**C.21.** As applicable, the permittee shall monitor and collect data to demonstrate continuous compliance as follows: [40 CFR 63.6635]

- a) Since you must comply with emission and operating limitations, you must monitor and collect data according to this section.
- b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- c) 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.

**C.22.** As applicable, the permittee shall demonstrate continuous compliance with the emission limitation, operating limitation, and other requirements as follows: [40 CFR 63.6640]

- a) You must demonstrate continuous compliance with each emission limitations, and other requirements specified in this permit as applicable according to methods specified in Table 6 of Subpart ZZZZ, which is summarized as follows:

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<b>For each . . .</b>	<b>Complying with the requirement to . . .</b>	<b>You must demonstrate continuous compliance by . . .</b>
Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. Conducting annual compliance demonstrations as specified in 40 CFR 63.6640(c) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O <sub>2</sub> ; and either  ii. Collecting the catalyst inlet temperature data according to 40 CFR 60.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than 450 °F and less than or equal to 1350 °F for the catalyst inlet temperature; or  iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1350 °F

- b) You must report each instance in which you did not meet each emission limitation or operating limitations in this permit that apply to you. These instances are deviations from the emission and operating limitations in Subpart ZZZZ. These deviations must be reported according to the requirements in 40 CFR 60.6650. If you change your catalyst (if applicable), 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 applicable to your stationary RICE.
- c) The annual compliance demonstration required for existing non-emergency 4SLB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:
  - 1) The compliance demonstration must consist of at least one test run.
  - 2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.
  - 3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.
  - 4) [RESERVED]
  - 5) You must measure O<sub>2</sub> using one of the O<sub>2</sub> measurement methods specified in Table 4 of this subpart. Measurements to determine O<sub>2</sub> concentration must be made at the same time as the measurements for CO concentration.

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- 6) If you are demonstrating compliance with the CO percent reduction requirement, you must measure CO emissions and O<sub>2</sub> emissions simultaneously at the inlet and outlet of the control device.
- 7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.
- d) [Reserved]
- e) You must also report each instance in which you did not meet the requirements in Table 8 of Subpart ZZZZ that apply to you.

**C.23.** The following notifications must be submitted to the regulating authority: [40 CFR 63.6645]

- a) You must submit all of the notifications in 40 CFR 60.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the timelines specified in this condition.
- b) Since you are required 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 as required in 40 CFR 60.7(b)(1).
- c) Since you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 of Subpart ZZZZ, you must submit a Notification of Compliance Status according to 40 CFR 60.9(h)(2)(ii).
  - 1) For each initial compliance demonstration required in Table 5 of Subpart ZZZZ that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.
  - 2) For each initial compliance demonstration required in Table 5 of Subpart ZZZZ that includes a performance test conducted according to the requirements in Table 3 of Subpart ZZZZ, you must submit the 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 according to 40 CFR 60.10(d)(2).

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**C.24.** The following reports must be submitted: [40 CFR 63.6650]

a) You must submit each report in Table 7 of Subpart ZZZZ that applies to you, as follows:

<b>For each ...</b>	<b>You must submit a ...</b>	<b>The report must contain ...</b>	<b>You must submit the report ...</b>
Existing non-emergency, non-black start 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Compliance report	a. The results of the annual compliance demonstration, if conducted during the reporting period	i. Semiannually according to the requirements in 40 CFR 60.6650(b)(1)-(5). (See below)

b) Unless the Administrator has approved a different schedule for submission of reports under 40 CFR 60.10(a), you must submit each report according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

- 1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in 40 CFR 60.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in 40 CFR 60.6595.
- 2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in 40 CFR 60.6595.
- 3) For semiannual Compliance reports, each subsequent 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.
- 4) For semiannual Compliance reports, each subsequent Compliance report 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.
- 5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.

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- 6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in 40 CFR 60.6595 and ending on December 31.
  - 7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in 40 CFR 60.6595.
  - 8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.
  - 9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.
- c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section
- 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 40 CFR 60.6605(b), 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 60.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.
- d) 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 subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.
- 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.
- e) 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

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subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.

- 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 40 CFR 60.8(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.

**C.25.** The following records must be maintained: [40 CFR 63.6655]

- a) You must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) below:
  - 1) A copy of each notification and report that you submitted to comply with Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR 60.10(b)(2)(xiv).
  - 2) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.
  - 3) Records of performance tests and performance evaluations as required in 40 CFR 60.10(b)(2)(viii).
  - 4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
  - 5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 60.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

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- b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.
  - 1) Records described in 40 CFR 60.10(b)(2)(vi) through (xi).
  - 2) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in 40 CFR 60.8(d)(3).
  - 3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 CFR 60.8(f)(6)(i), if applicable.
- c) [Reserved.]
- d) You must keep the records required in Table 6 of Subpart ZZZZ to show continuous compliance with each emission or operating limitation that applies to you.

**C.26.** Records must be maintained as follows: [40 CFR 63.6660]

- a) Your records must be in a form suitable and readily available for expeditious review according to 40 CFR 60.10(b)(1).
- b) As specified in 40 CFR 60.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- c) 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 40 CFR 60.10(b)(1).

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

**Subsection D. Emissions Unit 009 and 010**

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

<b>EU No.</b>	<b>Brief Description</b>
009	Natural Gas-Fired Generator No. 1 (East)
010	Natural Gas-Fired Generator No. 2 (West)

The two stationary, natural gas-fired generators are identical Caterpillar, Model No. G3520C, generator sets rated at 2 MW each. The generators are intended to operate as peaking units. The maximum heat input of each generator is 22.2 MMBtu/hr based on the maximum fuel usage rate provided by the manufacturer. Each unit is equipped with a non-selective catalytic reduction (NSCR) system (Model #SP-ZCSI-54x61-20/24-XH2.5B3) on the exhaust portion of the generator to help reduce emissions and ensure compliance with the exhaust limits from the federal rules. The generators are subject to 40 CFR 60 Subpart JJJJ and 40 CFR 63 Subpart ZZZZ.

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

**D.1. Permitted Capacity.** The maximum heat input for each generator shall not exceed 22.2 MMBtu/hr. [Rules 62-4.070(3), 62-210.200(Potential to Emit), and 62-212.300(1)(d), F.A.C.; and Permit No. 0570089-017-AC]

**D.2. Methods of Operation.** In order to limit the potential to emit for the stationary natural gas-fired generators, the following restrictions shall apply: [Rules 62-4.070(3), 62-210.200(Potential to Emit), and 62-212.300(1)(d), F.A.C.; and Permit No. 0570089-017-AC]

- a) The generators shall be fired only on natural gas.
- b) Each generator shall have a non-selective catalytic reduction (NSCR) system as part of its exhaust system.
- c) The generators shall only operate when all emissions from the engines are being vented through the NSCR systems.

**D.3. Hours of Operation.** The hours of operation for each generator are not restricted (i.e., each is permitted to operate 8,760 hrs/yr). [Rules 62-4.070(3), 62-210.200(Potential to Emit), and 62-212.300(1)(d), F.A.C.; and Permit No. 0570089-017-AC]

**Emission Limitations and Standards**

*[Permit Note: Notwithstanding the emission limitations stated in this section, additional limits and requirements from 40 CFR 60 (Subpart JJJJ) are specified in the last section of Subsection D.]*

**D.4. Visible emissions from the exhaust of the stationary natural gas-fired generators shall not have an opacity equal to or greater than 20%. [Rule 62-296.320(4)(b)1, F.A.C.; and Chapter 1-3.52(1), Rules of the EPC]**

**Test Methods and Procedures**

*[Permit Note: Notwithstanding the test requirements stated in this section, additional limits and requirements from 40 CFR 60 (Subpart JJJJ) are specified in the last section of Subsection D.]*

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

#### Subsection D. Emissions Unit 009 and 010

**D.5. Annual Visible Emissions Tests Required.** The permittee shall test both stationary natural gas-fired generators for visible emissions (opacity) once per federal fiscal year (October 1 – September 30). Each test shall be at least 30 minutes in duration. The test shall be performed at the point of highest opacity from each emission point. [Rules 62-297.310, and 62-4.070(3), F.A.C.; and Chapter 1-3.52(3), Rules of the EPC]

**D.6. Test Methods.** Compliance with the emission limitation in Specific Condition No. D.4 shall be performed in accordance with EPA Method 9 contained and described in 40 CFR 60, appendix A and adopted by reference in Rule 62-204.800, F.A.C. The minimum requirements for stack sampling facilities, source sampling, and reporting shall be in accordance with Rule 62-297.310(6), F.A.C. Two copies of the test data shall be submitted to the Air Management Division of the Environmental Protection Commission of Hillsborough County office within 45 days of such testing. [Rule 62-297.310, F.A.C.]

**D.7. Testing Conditions.** Testing of emissions shall be conducted with the generators operating at capacity. Capacity is defined as 90-100% of rated capacity of each unit as specified in Specific Condition No. D.1. If it is impracticable to test at capacity, then the source may be tested at less than capacity; in this case subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen days for purposes of additional compliance testing to regain the rated capacity in the permit, with prior notification to the EPC. Failure to submit the heat input rates and actual operating conditions may invalidate the test. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Rule 62-297, F.A.C. and 40 CFR 60, Appendix A. [Rules 62-4.070(3) and 62-297.310, F.A.C.]

**D.8. 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.]

#### **Recordkeeping and Reporting Requirements**

**D.9. Recordkeeping.** The permittee shall maintain monthly records of the generators operation in order to ensure compliance with Specific Condition Nos. D.1., D.2., and D.3. The records shall be maintained onsite for at least five years and shall be made available to any local, state, or federal air pollution agency upon request. The records shall include, but not be limited to, the following: [40 CFR 60.4243(e); and Rules 62-4.070(3) and 62-213.440(1)(b)2., F.A.C.]

- a) Date, Month
- b) Hours of operation of each generator (hours)
- c) Rolling consecutive 12-month total of hours of operation of each generator (hours)

**D.10. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for any additional reporting requirements.

#### **40 CFR 60 Requirements**

**D.11.** Notwithstanding the specific requirements from NSPS and NESHAP detailed in this permit,

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

**Subsection D. Emissions Unit 009 and 010**

these emissions units shall comply with all applicable requirements of 40 CFR 60 Subpart JJJJ and 40 CFR 63 Subpart ZZZZ, incorporated by reference. [Rules 62-4.030, 62-4.070(3) and 62-204.800(8) and (11), F.A.C.]

**D.12.** Notwithstanding the specific requirements from NSPS and NESHAP detailed in this permit, these emissions units shall comply with all applicable requirements of 40 CFR 60 Subpart A and 40 CFR 63 Subpart A, incorporated by reference. [Rules 62-4.030, 62-4.070(3) and 62-204.800(8) and (11), F.A.C.]

**D.13.** The stationary natural gas-fired generators must comply with the following emission standards: [40 CFR 60.4233(e)]

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards <sup>a</sup>					
			g/HP-hr			ppmvd at 15% O <sub>2</sub>		
			NO <sub>x</sub>	CO	VOC <sup>b</sup>	NO <sub>x</sub>	CO	VOC <sup>b</sup>
Non-Emergency SI Natural Gas	HP≥500	7/1/2010	1.0	2.0	0.7	82	270	60

<sup>a</sup> Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O<sub>2</sub>.

<sup>b</sup> For purposes of these limits, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

**D.14.** The permittee must operate and maintain the stationary natural gas-fired generators in compliance with the emission limits stated in D.13. above over the entire life of the engine. [40 CFR 60.4234]

**D.15.** Since the engines are not certified to the emission standards, the permittee must demonstrate compliance through the following method: [40 CFR 60.4243(b) and 60.8(a); and Rule 62-4.070(3), F.A.C.]

- a) The permittee must demonstrate compliance with the emission standards stated in D.13. in accordance with the requirements specified in 40 CFR 60.4244, as applicable, and according to the following:
  - i. The permittee 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.
  - ii. The permittee must conduct performance testing for NO<sub>x</sub>, CO, and VOC emissions on each generator every 8,760 hours or 3 years, whichever comes first, to demonstrate compliance.

**D.16.** [Reserved]

**D.17.** If three-way catalysts/non-selective catalytic reduction systems are installed on the engines, it is expected that air-to-fuel ratio (AFR) controllers will be used. The AFR controller must be maintained

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

**Subsection D. Emissions Unit 009 and 010**

and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40 CFR 60.4243(g)]

**D.18.** Performance tests must follow the procedures stated below: [40 CFR 60.4244]

- a) Performance tests must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the following specific conditions:

<b>For each</b>	<b>Complying with the requirement to</b>	<b>You must</b>	<b>Using</b>	<b>According to the following requirements</b>
1. Stationary SI internal combustion engine demonstrating compliance according to 40 CFR 60.4244	a. limit the concentration of NO <sub>x</sub> , CO, and VOC in the stationary SI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, Appendix A. For NO <sub>x</sub> and CO, ASTM Method D6522–00(2005) <sup>a</sup> may also be used.	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B <sup>b</sup> of 40 CFR part 60, appendix A or ASTM Method D6522–00(2005) <sup>a</sup>	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for NO <sub>x</sub> , CO, and VOC concentration, respectively.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 19 of 40 CFR part 60	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see 40 CFR 60.17)	(c) Measurements to determine moisture must be made at the same time as the measurement for NO <sub>x</sub> , CO, and VOC concentration, respectively.

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

**Subsection D. Emissions Unit 009 and 010**

		v. Measure NO <sub>x</sub> at the exhaust of the stationary internal combustion engine	(5) Method 7E of 40 CFR part 60, appendix A, Method D6522-00(2005) <sup>a</sup> , Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR 60.17)	(d) Results of this test consist of the average of the three 1-hour or longer runs.
		v. Measure CO at the exhaust of the stationary internal combustion engine	(5) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522-00(2005) <sup>a</sup> , Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR 60.17)	(d) Results of this test consist of the average of the three 1-hour or longer runs.
		v. Measure VOC at the exhaust of the stationary internal combustion engine	(5) Methods 25A and 18 of 40 CFR part 60, appendix A, Method 25A with the use of a methane cutter as described in 40 CFR 1065.265, Method 18 or 40 CFR part 60, appendix A <sup>c,d</sup> , Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR 60.17)	(d) Results of this test consist of the average of the three 1-hour or longer runs.

- b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 CFR 60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.
- c) You must conduct three separate test runs for each performance test required in this section, as specified in 40 CFR 60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.
- d) To determine compliance with the NO<sub>x</sub> mass per unit output emission limitation, convert the concentration of NO<sub>x</sub> in the engine exhaust using Equation 1 below:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 1})$$

Where:

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

#### Subsection D. Emissions Unit 009 and 010

ER = Emission rate of NO<sub>x</sub> in g/HP-hr.

C<sub>d</sub>= Measured NO<sub>x</sub> concentration in parts per million by volume (ppmv).

1.912×10<sup>-3</sup> = Conversion constant for ppm NO<sub>x</sub> to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

- e) To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 below:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 2})$$

Where:

ER = Emission rate of CO in g/HP-hr.

C<sub>d</sub>= Measured CO concentration in ppmv.

1.164×10<sup>-3</sup> = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

- f) For purposes of Subpart JJJJ, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 below:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 3})$$

Where:

ER = Emission rate of VOC in g/HP-hr.

C<sub>d</sub>= VOC concentration measured as propane in ppmv.

1.833×10<sup>-3</sup> = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

- g) If the permittee chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

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

**Subsection D. Emissions Unit 009 and 010**

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$$RF_i = \frac{C}{C_{Ai}} \quad (\text{Eq. 4})$$

Where:

RF<sub>i</sub>= Response factor of compound i when measured with EPA Method 25A.

C<sub>Mi</sub>= Measured concentration of compound i in ppmv as carbon.

C<sub>Ai</sub>= True concentration of compound i in ppmv as carbon.

$$C_{\text{corr}} = RF_i \times C_{\text{meas}} \quad (\text{Eq. 5})$$

Where:

C<sub>corr</sub>= Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C<sub>meas</sub>= Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{\text{Req}} = 0.6098 \times C_{\text{corr}} \quad (\text{Eq. 6})$$

Where:

CP<sub>eq</sub>= Concentration of compound i in mg of propane equivalent per DSCM.

**D.19.** The permittee must meet the following notification, reporting and recordkeeping requirements: [40 CFR 60.4245 and Rule 62-297.310(8), F.A.C.]

- a) The permittee must keep records of the following information:
  - i. All notifications submitted to comply with Subpart JJJJ and all documentation supporting any notification.
  - ii. Maintenance conducted on the engines.
  - iii. Since the stationary SI internal combustion engines are not certified engines, documentation that the engines meet the emission standards.
- b) [Reserved]
- c) The permittee must submit a copy of each performance test as conducted in 40 CFR 60.4244 within 45 days after the test has been completed.

**D.20.** Since the facility is subject to 40 CFR 60 Subpart JJJJ, the permittee shall comply with the following requirements: [Rule 62-204.800, F.A.C. and 40 CFR 60.4230]

- a) Testing shall be performed in accordance with 40 CFR 60.8, as applicable. [40 CFR 60.8]
- b) No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR 60.12]

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

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**Subsection D. Emissions Unit 009 and 010**

- c) Notification and reporting requirements stated in this permit shall be in accordance with 40 CFR 60.19, as applicable. [40 CFR 60.19]

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

**Subsection E. Emissions Unit 013**

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

<b>EU No.</b>	<b>Brief Description</b>
013	Four Diesel Fired Emergency Generators

<u>Brief Description of Engine</u>	<u>Horsepower (per generator)</u>	<u>Rule Applicability</u>
Four Identical Diesel Fired, Caterpillar, Model No. DM8266, Emergency Generator Sets with a Caterpillar, Model No. 3516C, diesel engine	3,634 HP	40 CFR 60 Subpart III

[*Permit Note:* The engines listed above must comply with the requirements from the federal rule(s) as identified below. The conditions referenced below are a summary of the requirements from the federal rules, but the facility must ensure that it maintains compliance with all aspects of the rule. If the facility fails to maintain retention of the manufacturer’s certification statement of compliance with the emission limits, or at such time that the manufacturer’s certification is no longer valid (i.e. due to operation or maintenance practices that are inconsistent with the manufacturer’s recommendations), the permittee may be subject to additional compliance requirements with the standards listed in the applicable federal rule (included in the appendices as an enforceable part of this permit) in a manner that is prescribed by that rule.]

**E.1.** Notwithstanding the specific requirements from the NSPS detailed in this permit, these emissions units shall comply with all of the applicable requirements of 40 CFR 60 Subpart III, incorporated by reference. [Rules 62-4.030, 62-4.070(3) and 62-204.800, F.A.C.]

**E.2.** Notwithstanding the specific requirements from the NSPS detailed in this permit, these emissions units shall comply with all of the applicable requirements of 40 CFR 60 Subpart A, incorporated by reference. [Rules 62-4.030, 62-4.070(3) and 62-204.800, F.A.C.]

**E.3.** Each engine shall meet the following emission limits: [Rule 62-204.800, F.A.C. and 40 CFR 60.4202(a)(2)]

<b>NMHC</b> (g/kW-hr)/(g/bhp-hr)	<b>NO<sub>x</sub></b> (g/kW-hr)/(g/bhp-hr)	<b>CO</b> (g/kW-hr)/(g/bhp-hr)	<b>PM</b> (g/kW-hr)/(g/bhp-hr)
(1.3)/(1.0)	(9.2)/(6.9)	(11.4)/(8.5)	(0.54)/(0.40)

g/kW-hr - Grams per kilowatt hour; g/bhp-hr - Grams per brake horse power hour;  
 NMHC - Non-methane hydrocarbon; NO<sub>x</sub> – Oxides of nitrogen as NO<sub>2</sub>;  
 CO - Carbon monoxide; PM - particulate matter

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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### Subsection E. Emissions Unit 013

**E.4.** Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in E.3. above over the entire life of the engine. [40 CFR 60.4206]

**E.5.** Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [40 CFR 60.4207]

**E.6.** If your emergency stationary CI internal combustion engine does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine. [40 CFR 60.4209]

**E.7.** The permittee shall comply with the following: [40 CFR 60.4211(a)]

- 1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
- 2) Change only those emission-related settings that are permitted by the manufacturer; and
- 3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

**E.8.** You must operate the emergency stationary ICE according to the requirements in paragraphs 1) through 3) below. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs 1) through 3) below, is prohibited. If you do not operate the engine according to the requirements in paragraphs 1) through 3) below, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. [Rule 62-204.800, F.A.C. and 40 CFR 60.4211(f)]

- 1) There is no time limit on the use of emergency stationary ICE in emergency situations.
- 2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraph 2)(i) through (iii) below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph 3) below counts as part of the 100 hours per calendar year allowed by this paragraph.

- (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. 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 ICE beyond 100 hours per calendar year.

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection E. Emissions Unit 013

(ii) Emergency stationary ICE 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 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph 2) above. Except as provided in paragraph 3)(i) below, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(ii) [Reserved]

**E.9.** 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

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## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection E. Emissions Unit 013

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way that is not permitted by the manufacturer, you must demonstrate compliance as follows: [40 CFR 60.4211(g)]

- 1) 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.
- 2) 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.
- 3) You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

**E.10.** If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii) (Specific Condition No. E.8.) or that operates for the purposes specified in 40 CFR 60.4211(f)(3)(i) (Specific Condition No. E.8.), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) below. [Rule 62-204.800, F.A.C. and 40 CFR 60.4214(d)]

1) The report must contain the following information:

- i. Company name and address where the engine is located.
- ii. Date of the report and beginning and ending dates of the reporting period.
- iii. Engine site rating and model year.
- iv. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
- v. Hours operated for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii) (Specific Condition No. E.8.), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii) (Specific Condition No. E.8.).
- vi. Number of hours the engine is contractually obligated to be available for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii) (Specific Condition No. E.8.).
- vii. Hours spent for operation for the purposes specified in 40 CFR 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4211(f)(3)(i) (Specific Condition No. E.8.). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

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

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**Subsection E. Emissions Unit 013**

- 3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ( [www.epa.gov/cdx](http://www.epa.gov/cdx) ). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4.

**SECTION IV. APPENDICES.**

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**The Following Appendices Are Enforceable Parts of This Permit:**

Appendix A, Glossary  
Appendix I, List of Insignificant Emissions Units and/or Activities  
Appendix RR, Facility-wide Reporting Requirements  
Appendix SS-1, Stack Sampling Facilities  
Appendix TR, Facility-wide Testing Requirements  
Appendix TV, Title V General Conditions  
Appendix NESHAP, Subpart A – General Provisions  
Appendix NESHAP, Subpart ZZZZ  
Appendix NSPS, Subpart A – General Provisions  
Appendix NSPS, Subpart Dc  
Appendix NSPS, Subpart IIII  
Appendix NSPS, Subpart JJJJ

**REFERENCED ATTACHMENTS.**

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**The Following Attachments Are Included for Applicant Convenience:**

Table H, Permit History.

Table 1, Summary of Air Pollutant Standards and Terms.

Table 2, Compliance Requirements.