



Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

**BUREAU OF AIR MANAGEMENT  
TITLE V OPERATING PERMIT**

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-33 of the Regulations of Connecticut State Agencies (RCSA) and pursuant to the Code of Federal Regulations (CFR), Title 40, Part 70.

<b>Title V Permit Number</b>	075-0246-TV
<b>Client/ Sequence /Town/Premises Numbers</b>	1046/1/75/505
<b>Date Issued</b>	April 1, 2013
<b>Modification Issue Date</b>	March 26, 2014
<b>Expiration Date</b>	April 1, 2018

**Corporation:**

*The Metropolitan District*

**Premises Location:**

*Hartford Water Pollution Control Facility  
240 Brainard Road, Hartford, CT 06114*

**Name of Responsible Official and Title:**

*Charles P. Sheehan, Chief Executive Officer*

All the following attached pages, 2 through 72, are hereby incorporated by reference into this Title V Operating Permit.

/s/ Anne Gobin for  
Robert J. Klee  
Commissioner

March 26, 2014  
Date

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## **Title V Operating Permit**

**All conditions in Sections III, IV, and VI of this Title V permit are enforceable by both the Administrator and the commissioner unless otherwise specified. Applicable requirements and compliance demonstration are set forth in Section III of this Title V permit. The Administrator or any citizen of the United States may bring an action to enforce all permit terms or conditions or requirements contained in Sections III, IV, and VI of this Title V permit in accordance with the Clean Air Act, as amended.**

## LIST OF ABBREVIATIONS/ACRONYMS

<i>Abbreviation/Acronym</i>	<i>Description</i>
acfm	Actual Cubic Feet per Minute
AOS	Alternative Operating Scenario
As	Arsenic
ASC	Actual Stack Concentration
BAM	Bureau of Air Management
Bhp	Brake Horsepower
CAM	Compliance Assurance Monitoring
Cd	Cadmium
CEMS	Continuous Emission Monitoring System
cfm	Cubic feet per minute
CFR	Code of Federal Regulations
CGS	Connecticut General Statutes
CI	Compression Ignition
CMS	Continuous Monitoring System
CO <sub>2</sub>	Carbon Dioxide
CO	Carbon Monoxide
CPMS	Continuous Parameter Monitoring System
Cr	Chromium
Cu	Copper
°F	Degrees Fahrenheit
DAF	Dissolved Air Flootation
DAS	Data Acquisition System
DEEP	Department of Energy and Environmental Protection
DT/hr	Dry Ton per Hour
DT/yr	Dry Ton per Year
EU	Emission Unit
EPA	Environmental Protection Agency
FGR	Flue Gas Recirculation
FIRE	Factor Information Retrieval Software
ft <sup>3</sup>	Cubic Feet
gal	Gallon
gph	Gallons per Hour
GC/MS	Gas Chromatography/Mass Spectroscopy
GEU	Grouped Emission Unit
gm./bk. hp-hr	Gram per Brake Horsepower Hour
g/KW-hr	Grams per Kilowatt Hour
HAP	Hazardous Air Pollutant
HLV	Hazard Limiting Value
hp	Horsepower
hr	Hour
HWPCF	Hartford Water Pollution Control Facility
ICE	Internal Combustion Engine
ITT	Intent to Test
KOH	Potassium Hydroxide
kW	Kilo Watt
L	Liter

## LIST OF ABBREVIATIONS/ACRONYMS, continued

<i>Abbreviation/Acronym</i>	<i>Description</i>
lb	Pound
MASC	Maximum Allowable Stack Concentration
MACT	Maximum Allowable Control Technology
MDC	Metropolitan District
$\mu\text{g}/\text{m}^3$	Micrograms per Cubic Meter
Mn	Manganese
MM	Million
MMBTU	Million British Thermal Units
min	Minute
MSDS	Material Safety Data Sheets
NAAQS	National Ambient Air Quality Standards
NERC	North American Electric Reliability Corporation
Ni	Nickel
NMHC	Nonmethane Hydrocarbon
$\text{NO}_2$	Nitrogen Dioxide
$\text{NO}_x$	Nitrogen Oxides
NSR	New Source Review
NTE	Not-to Exceed
$\text{O}_2$	Oxygen
Pb	Lead
PM	Particulate Matter
$\text{PM}_{10}$	Particulate Matter less than 10 microns in diameter
ppmv	Parts per Million, Volumetric Basis
RCSA	Regulations of Connecticut State Agencies
RICE	Reciprocating Internal Combustion Engine
RSRF	Regional Solids Receiving Facility
SI	Spark Ignition
SIC	Source Identification Code
Se	Selenium
SOS	Standard Operating Scenario
$\text{SO}_x$	Sulfur Oxides
$\text{SO}_2$	Sulfur Dioxide
THC	Total Hydrocarbons
TPY	Tons per Year
TSP	Total Suspended Particulate
VFD	Variable Frequency Drive
VOC	Volatile Organic Compound
Zn	Zinc

## Section I: Premises Information/Description

### A. PREMISES INFORMATION

Nature of Business: Publicly Owned Treatment Works

Primary SIC: 4952

Facility Mailing Address: The Metropolitan District  
P.O. Box 800  
Hartford, CT 06142-0800

Telephone Number: 860-278-7850

### B. PREMISES DESCRIPTION

The Metropolitan District (MDC) owns and operates the Hartford Water Pollution Control Facility (HWPCF), an 80 million gallon per day activated sludge municipal wastewater treatment facility. The facility has three Nichols-Herreshoff multiple hearth sludge incinerators, several emergency or non-emergency engines/generators. The facility also houses settling tanks, aeration tanks, thickening tanks, holding tanks, sludge centrifuges and natural gas boilers that are not subject to permits.

MDC is a Title V source because actual carbon monoxide (CO) emissions exceed the major source threshold. MDC is located in a serious ozone non-attainment area as defined in RCSA §22a-174-1(103).

The sewage sludge incinerators are subject to:

40 CFR 60, Subpart O	Standards of Performance for Sewage Treatment Plants
40 CFR 61, Subpart C	National Emission Standards for Beryllium
40 CFR 61, Subpart E	National Emission Standards for Mercury
40 CFR 503, Subpart E	Technical Standards for the Use and Disposal of Sewage Sludge Incineration

Nine engines are subject to:

40 CFR 63, Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines
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One engine is subject to:

40 CFR 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
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## Section II: Emissions Units Information

### A. EMISSIONS UNITS IDENTIFICATION:

Emissions units are set forth in Table II.A. It is not intended to incorporate by reference these NSR Permits, Orders, or Registrations into this Title V permit.

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>				
<b>Grouped Emission Units</b>	<b>Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Regulation or Registration Number</b>
GEU-001	EU-001	Nichols-Herreshoff Multiple Hearth Sludge Incinerator, No. 1, Serial No. 47674 Installation Date: 8/1/72 Maximum Rated Capacity: 2.5 DT/hr	Venturi Pak Scrubber, Impingement Plate Scrubber, Flue Gas Recirculation and Zero Hearth Afterburner	Permit No. 075-0006, 40 CFR 60, Subpart O, 40 CFR 61, Subpart C, 40 CFR 61, Subpart E and 40 CFR 503, Subpart E
	EU-002	Nichols-Herreshoff Multiple Hearth Sludge Incinerator, No. 2, Serial No. 47673 Installation Date: 8/1/72 Maximum Rated Capacity: 2.5 DT/hr	Venturi Pak Scrubber, Impingement Plate Scrubber, Flue Gas Recirculation and Zero Hearth Afterburner	Permit No. 075-0007, 40 CFR 60, Subpart O, 40 CFR 61, Subpart C, 40 CFR 61, Subpart E and 40 CFR 503, Subpart E
	EU-003	Nichols-Herreshoff Multiple Hearth Sludge Incinerator, No.3, Serial No. 47675 Installation Date: 8/1/72 Maximum Rated Capacity: 2.5 DT/hr	Venturi Pak Scrubber, Impingement Plate Scrubber, Flue Gas Recirculation and Zero Hearth Afterburner	Permit No. 075-0008, 40 CFR 60, Subpart O, 40 CFR 61, Subpart C, 40 CFR 61, Subpart E and 40 CFR 503, Subpart E

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>				
<b>Grouped Emission Units</b>	<b>Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Regulation or Registration Number</b>
GEU-002	EU-007	Final Effluent Pump No. 1 – Caterpillar Model 3406C Diesel Industrial Engine Arrangement No. 109-1349, Serial No. 6TB 13435 Installation Date: 1/1995 Maximum Rated Capacity: 420 Bhp	Diesel Oxidation Catalyst	Permit No. 075-0213 and 40 CFR 63, Subpart ZZZZ
	EU-008	Final Effluent Pump No. 2 – Caterpillar Model 3406C Diesel Industrial Engine Arrangement No. 109-1349, Serial No. 6TB 13436 Installation Date: 1/1995 Maximum Rated Capacity: 420 Bhp	Diesel Oxidation Catalyst	Permit No. 075-0214 and 40 CFR 63, Subpart ZZZZ
	EU-009	Final Effluent Pump No. 3 – Caterpillar Model 3406C Diesel Industrial Engine Arrangement No. 109-1349, Serial No. 6TB 13356 Installation Date: 1/1995 Maximum Rated Capacity: 420 Bhp	Diesel Oxidation Catalyst	Permit No. 075-0215 and 40 CFR 63, Subpart ZZZZ
	EU-010	Final Effluent Pump No. 4 – Caterpillar Model 3406C Diesel Industrial Engine Arrangement No. 109-1349, Serial No. 6TB 13318 Installation Date: 1/1995 Maximum Rated Capacity: 420 Bhp	Diesel Oxidation Catalyst	Permit No. 075-0216 and 40 CFR 63, Subpart ZZZZ
	EU-011	Final Effluent Pump No. 5 – Caterpillar Model 3406C Diesel Industrial Engine Arrangement No. 109-1349, Serial No. 6TB 13317 Installation Date: 1/1995 Maximum Rated Capacity: 420 Bhp	Diesel Oxidation Catalyst	Permit No. 075-0217 and 40 CFR 63, Subpart ZZZZ



**Section II: Emissions Units Information**

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>				
<b>Grouped Emission Units</b>	<b>Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Regulation or Registration Number</b>
	EU-012	Emergency Generator at Wet Weather Pump Station – Caterpillar Model 3412 Diesel Engine Generator Set, Serial No. 6EJ00526 Installation Date: 10/1994 Maximum Rated Capacity: 1006 Bhp	Not Applicable	Permit No. 075-0212 and 40 CFR 63, Subpart ZZZZ
	EU-016	Caterpillar XQ350 Generator Set, Serial No. 4JK00628 Installation Date: 1999 Maximum Rated Capacity: 22.98 gph	Diesel Oxidation Catalyst	Permit No. 075-0343 and 40 CFR 63, Subpart ZZZZ
	EU-017	Wisconsin Natural Gas Fired Generator, Serial No. 45303 in Maintenance Department Installation Date: 1987 Total Maximum Rated Capacity: 10 kW (13.4 Bhp)	Not Applicable	40 CFR 63, Subpart ZZZZ
	EU-023	UV Facility Emergency Generator Installation Date: 3/2012 Maximum Rated Capacity: 1000 kW (1474 Bhp)	Three stage (30, 20 and 2 micron) primary diesel fuel filter with water separator	RCSA §22a-174-3b and 40 CFR 60, Subpart IIII

## Section II: Emissions Units Information

### B. OPERATING SCENARIO IDENTIFICATION

The Permittee shall be allowed to operate under the following Standard Operating Scenarios (SOS) and Alternative Operating Scenarios (AOS) without notifying the commissioner, provided that such operations are explicitly provided for and described in the Table II.B below.

There are no AOS for the premises.

<b>TABLE II.B: OPERATING SCENARIO IDENTIFICATION</b>	
<b>Emissions Units Associated with the Scenario</b>	<b>Description of Scenario</b>
GEU-001	SOS: The Permittee operates no more than two of three Nichols-Herreshoff Multiple hearth sludge incinerators at any one time by using sewage sludge as the primary fuel and natural gas or propane as auxiliary fuel.
GEU-002, EU-012, EU-016, EU-017 and EU-023	SOS: The Permittee operates several generators/pumps, boilers and sludge processing equipment in support of facility operations.

### Section III: Applicable Requirements and Compliance Demonstration

The following are summaries of applicable regulations and compliance demonstration for each identified Emissions Unit and Operating Scenario, regulated by this permit.

#### A. GEU-001 (Nichols-Herreshoff Multiple Hearth Sludge Incinerator Nos. 1, 2 & 3)

All conditions in Section III. A of this permit apply to each incinerator individually unless otherwise noted.

##### 1. Allowable Primary Fuels

###### a. Limitation or Restriction

Only sewage sludge may be fired in this unit. Any substance which is considered “municipal-type solid waste,” as defined in 40 CFR, Part 60, §60.51a, or “hazardous waste,” as defined in §22a-115 of the Connecticut General Statutes, is prohibited from being introduced to this unit. For the purposes of this permit, sewage sludge is defined as any solid, semi-solid or liquid residue from the pretreatment or primary, secondary or advanced treatment of domestic sewage, industrial wastewater, septage, portable toilet pumpings and grease traps. [Permit Nos. 075-0006, 075-0007 and 075-0008]

###### b. Monitoring Requirements

The Permittee shall monitor all materials that are fed to the incinerator. [RCSA § 22a-174-4(d)(1) and RCSA §22a-174-33(j)(1)(K)]

###### c. Record Keeping Requirements

The Permittee shall make and keep record the date of all instances of incinerator feed materials that are not sewage sludge and record a description of the nonconforming materials, the quantity of such materials, and the source thereof. [RCSA §22a-174-4(d)(1)]

##### 2. Maximum Hourly Sludge Charging Rate

###### a. Limitation or Restriction

2.5 DT/hr based on a 30 day average per incinerator [Permit Nos. 075-0006, 075-0007 and 075-0008]

###### b. Monitoring Requirements

- i. The Permittee shall install, calibrate, maintain and operate a flow measuring device which can be used to determine either the mass or volume of sludge charged to the incinerator. The flow device shall be certified by the manufacturer to have an accuracy of  $\pm 5\%$  over the operating range. [Permit Nos. 075-0006, 075-0007, 075-0008 and 40 CFR §60.153(a)(1)]
- ii. The Permittee shall continuously measure and record the mass or volume of sludge charged to the incinerator. [40 CFR §60.153 (a)(1)]

###### c. Record Keeping Requirements

- i. The Permittee shall make and keep daily records of the rate of sludge charged to the incinerator. [40 CFR §60.153(c)(3) and 40 CFR §503.47(i)]

### **Section III: Applicable Requirements and Compliance Demonstration**

- ii. The sludge hourly charging rate shall be based on a 30 day average as determined either by the product of the mass of wet sludge cake fed per unit time to the incinerator times the solids fraction or the product of the volumetric feed (in gallons of total wet feed per hour) times the density of wet feed to the dewatering operation times the solids fraction measured by the daily grab sample. [Permit Nos. 075-0006, 075-0007, 075-0008 and RCSA §22a-174-33(j)(1)(K)(ii)]
- iii. The Permittee shall make and keep calibration and maintenance records and original instrument recordings for all continuous monitoring instruments and equipment. [Permit Nos. 075-0006, 075-0007 and 075-0008]

#### **3. Maximum Annual Sludge Charging Rate**

##### *a. Limitation or Restriction*

- i. 21,060 DT/yr based on a 12-month rolling average per incinerator [Permit Nos. 075-0006, 075-0007 and 075-0008]
- ii. Only two of the three Nichols-Herreshoff Incinerators may incinerate sewage sludge at the same time [Permit Nos. 075-0006, 075-0007 and 075-0008]
- iii. Maximum Annual Sludge Charging Rate for the facility is 42, 120 DT/yr. [Permit Nos. 075-0006, 075-0007 and 075-0008]

##### *b. Monitoring Requirements*

- i. The Permittee shall install, calibrate, maintain and operate a flow measuring device which can be used to determine either the mass or volume of sludge charged to the incinerator. The flow device shall be certified by the manufacturer to have an accuracy of  $\pm 5\%$  over the operating range. [Permit Nos. 075-0006, 075-0007, 075-0008 and 40 CFR §60.153 (a)(1)]
- ii. The Permittee shall continuously measure and record the mass or volume of sludge charged to the incinerator. [40 CFR §60.153 (a)(1)]

##### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep monthly records of the rate of sludge charged to the incinerator. [40 CFR §60.153(c)(3)]
- ii. The Permittee shall make and keep calibration and maintenance records and original instrument recordings for all continuous monitoring instruments and equipment. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- iii. Annual sludge charge rate shall be calculated on a 12 month rolling average basis obtained by adding the current month's charge rate to that of the previous 11 months. These calculations shall be performed monthly. [Permit Nos. 075-0006, 075-0007 and 075-0008]

### Section III: Applicable Requirements and Compliance Demonstration

#### 4. Maximum Auxiliary Fuel Firing Rate

*a. Limitation or Restriction*

21,300 ft<sup>3</sup>/hr or 21.3 MMBTU/hr Natural Gas and Propane back up per incinerator [Permit Nos. 075-0006, 075-0007 and 075-0008]

*b. Monitoring Requirements*

The Permittee shall install, calibrate, maintain and operate a monitoring device for measuring the auxiliary fuel flow to the incinerator. The auxiliary flow measuring device shall be certified by the manufacturer to have an accuracy of  $\pm 5\%$  over the operating range. The fuel flow measuring device shall be operated continuously. [Permit Nos. 075-0006, 075-0007, 075-0008 and 40 CFR §60.153(b)(4)]

*c. Record Keeping Requirements*

- i. The Permittee shall make and keep calibration and maintenance records and original instrument recordings for all continuous monitoring instruments and equipment. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- ii. The Permittee shall make and keep hourly records of the auxiliary fuel flow to the incinerator for each fuel. [40 CFR §60.153(c)(3)]

#### 5. Maximum Auxiliary Annual Fuel Usage

*a. Limitation or Restriction*

179.5 MM ft<sup>3</sup> per incinerator [Permit Nos. 075-0006, 075-0007 and 075-0008]

*b. Monitoring Requirements*

The Permittee shall install, calibrate, maintain and operate a monitoring device for measuring the auxiliary fuel flow to the incinerator. The auxiliary flow measuring device shall be certified by the manufacturer to have an accuracy of  $\pm 5\%$  over the operating range. The fuel flow measuring device shall be operated continuously. [Permit Nos. 075-0006, 075-0007, 075-0008 and 40 CFR §60.154(b)(4)]

*c. Record Keeping Requirements*

- i. The Permittee shall make and keep calibration and maintenance records and original instrument recordings for all continuous monitoring instruments and equipment. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- ii. The Permittee shall make and keep monthly records of the auxiliary fuel flow to the incinerator for each fuel. [40 CFR §60.153(c)(3)]
- iii. Annual auxiliary fuel consumption shall be calculated on a 12 month rolling average basis obtained by adding the current month's auxiliary fuel consumption to that of the previous 11 months for each fuel. These calculations shall be performed monthly. [Permit Nos. 075-0006, 075-0007 and 075-0008]

### Section III: Applicable Requirements and Compliance Demonstration

#### 6. Operating Combustion Temperature

##### a. Limitation or Restriction

Operation of the incinerator shall not cause the operating combustion temperature to exceed the performance test combustion temperature by more than 20 %. [[Permit Nos. 075-0006, 075-0007, 075-0008 and 40 CFR §503.45(e)]

##### b. Monitoring Requirements

- i. The Permittee shall install, calibrate, maintain and operate a temperature measuring device in each hearth, including the after burner, and at the outlet of the incinerator. Each temperature device shall be certified by the manufacturer to have an accuracy of  $\pm 5\%$  over its operating range. Each temperature measuring device shall be operated continuously. [Permit Nos. 075-0006, 075-0007, 075-0008, 40 CFR §60.153(b)(3), 40 CFR §503.45(d) and 40 CFR 64]
- ii. The Permittee shall operate monitoring device using procedures that take into account manufacturer's specifications. [40 CFR 64]
- iii. Operation of the incinerator shall not cause the operating combustion temperature to exceed the performance test combustion temperature by more than 20 percent. [40 CFR §503.45(e)]

##### c. Record Keeping Requirements

- i. The Permittee shall make and keep calibration and maintenance records and original instrument recordings for all continuous monitoring instruments and equipment. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- ii. The Permittee shall make and keep daily records of the measured temperatures of the incinerator. [40 CFR §60.153(c)(3) and 40 CFR §503.47(f)]
- iii. The Permittee shall make and keep a calibration and maintenance log for the instruments used to measure the total hydrocarbons concentration and oxygen concentration in the exit gas from the sewage sludge incinerator stack, the information needed to determine moisture content in the exit gas, and the combustion temperatures. [40 CFR §503.47(n)]
- iv. The Permittee shall automatically and continuously record the temperature in each hearth on a strip chart or digital data acquisition system averaged over each 1-hour incinerator operating period (at least with four data values equally spaced over each hour). [40 CFR §64.3(b)(4)(ii)]

##### d. Reporting Requirements

The Permittee shall provide records to the commissioner within 30 days of the receipt of a written request from the commissioner or such sooner time as the commissioner may require. [40 CFR 64]

#### 7. In-situ Thermal Oxidizer Operating Temperature

##### a. Limitation or Restriction

1200°F nominal steady-state operating temperature [Permit Nos. 075-0006, 075-0007 and 075-0008]

### **Section III: Applicable Requirements and Compliance Demonstration**

#### *b. Monitoring Requirements*

- i. The Permittee shall install, calibrate, maintain and operate a temperature measuring device in each hearth, including the after burner, and at the outlet of the incinerator. Each temperature device shall be certified by the manufacturer to have an accuracy of  $\pm 5\%$  over its operating range. Each temperature measuring device shall be operated continuously. [Permit Nos. 075-0006, 075-0007, 075-0008, 40 CFR §60.153(b)(3), 40 CFR §503.45(d) and 40 CFR 64]
- ii. The Permittee shall operate monitoring device using procedures that take into account manufacturer's specifications. [40 CFR 64]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep calibration and maintenance records and original instrument recordings for all continuous monitoring instruments and equipment. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- ii. The Permittee shall make and keep daily records of the measured temperatures of the incinerator. [40 CFR §60.153(c)(3) and 40 CFR §503.47(f)]
- iii. The Permittee shall automatically and continuously record the afterburner temperature on a strip chart or digital data acquisition system averaged over each 1-hour incinerator operating period (at least with four data values equally spaced over each hour). [40 CFR §64.3(b)(4)(ii)]

#### *d. Reporting Requirements*

The Permittee shall provide records to the commissioner within 30 days of the receipt of a written request from the commissioner or such sooner time as the commissioner may require. [40 CFR 64]

### **8. VenturiPak Scrubber Gas Flow Pressure Drop**

#### *a. Limitation or Restriction*

Minimum gas flow pressure drop is 20 inches of water or 30% less than the average pressure drop measured for each period of 15 minutes duration or more during the most recent performance test, whichever is less [Permit Nos. 075-0006, 075-0007, 075-0008 and 40 CFR 64]

#### *b. Monitoring Requirements*

- i. The Permittee shall install, calibrate, maintain and operate a monitoring device (differential pressure transducer, differential pressure gauge or manometer) that continuously measures and records the VenturiPak scrubber gas flow pressure drop. This device shall be certified by the manufacturer to be accurate within 1 inch of water gauge and shall be calibrated on an annual basis in accordance with the manufacturer's instructions. [Permit Nos. 075-0006, 075-0007, 075-0008, 40 CFR §60.153(b)(1) and 40 CFR 64]
- ii. The Permittee shall operate monitoring device using procedures that take into account manufacturer's specifications. [40 CFR 64]

### **Section III: Applicable Requirements and Compliance Demonstration**

iii. If corrective action is necessary, the Permittee shall have maintenance respond within 24 hours to make adjustments/repairs. [40 CFR §64.3(b)(4)(iii)]

#### *c. Record Keeping Requirements*

i. The Permittee shall make and keep calibration and maintenance records and original instrument recordings for all continuous monitoring instruments and equipment. [Permit Nos. 075-0006, 075-0007 and 075-0008]

ii. The Permittee shall make and keep daily records of the measured pressure drop of the gas flow through the wet scrubbing device. [Permit No. 075-0008 and 40 CFR §60.153(c)(1)]

iii. The Permittee shall automatically and continuously record the pressure differential across the scrubber on a strip chart or digital data acquisition system averaged over each 1-hour incinerator operating period. [40 CFR 64]

#### *d. Reporting Requirements*

i. The Permittee shall provide records to the commissioner within 30 days of the receipt of a written request from the commissioner or such sooner time as the commissioner may require. [40 CFR 64]

ii. The Permittee shall submit a written report to the commissioner and to EPA Region I for each semi-annual period ending June 30 and December 31 of each year. The semi-annual reports shall be submitted on or before March 1 and September 1 following the end of the semi-annual period. The report shall contain a record of the average scrubber pressure drop measurements for each period of 15 minutes duration or more during which the pressure drop of the scrubber was less than 30 percent from the average pressure drop measured during the most recent performance test. [Permit Nos. 075-0006, 075-0007, 075-0008 and 40 CFR §60.155(a)(1)(i)]

### **9. VenturiPak Scrubber Tray Water Flow Rate**

#### *a. Limitation or Restriction*

Minimum water flow to the scrubber is 550 gal/min [Permit Nos. 075-0006, 075-0007, 075-0008 and 40 CFR 64]

#### *b. Monitoring Requirements*

i. The Permittee shall install, calibrate, maintain and operate a monitoring device that continuously measures and records the VenturiPak scrubber tray water flow rate. This device shall be certified by the manufacturer to be accurate within  $\pm 5\%$  over its operating range and shall be calibrated on an annual basis in accordance with the manufacturer's instructions. [Permit Nos. 075-0006, 075-0007, 075-0008 and 40 CFR 64]

ii. The Permittee shall operate monitoring device using procedures that take into account manufacturer's specifications. [40 CFR 64]

iii. If corrective action is necessary, the Permittee shall have maintenance respond within 24 hours to make adjustments/repairs. [40 CFR §64.3(b)(4)(iii)]



### **Section III: Applicable Requirements and Compliance Demonstration**

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep calibration and maintenance records and original instrument recordings for all continuous monitoring instruments and equipment. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- ii. The Permittee shall automatically and continuously record the scrubber tray water flow rate on a strip chart or digital data acquisition system at least once per 24 hour period. [40 CFR §64.3(b)(4)(iii)]

#### *d. Reporting Requirements*

The Permittee shall provide records to the commissioner within 30 days of the receipt of a written request from the commissioner or such sooner time as the commissioner may require. [40 CFR 64]

### **10. Opacity**

#### *a. Limitation or Restriction*

<10 % opacity based on a six minute block average [Permit Nos. 075-0006, 075-0007, 075-0008 and RCSA §22a-174-4(c)(2) and §22a-174-18(b)]

#### *b. Monitoring Requirements*

- i. The Permittee shall use Method 9 and the procedures in 40 CFR §60.11 to determine opacity every five years. [40 CFR §60.154(b)(6) and RCSA §22a-174-4(c)(2)]
- ii. The Permittee shall not cause or allow unburned waste or ash particulate emission that are individually discernible by the human eye measured using 40 CFR 60, Appendix A, Reference Method 9 and 40 CFR 60, Appendix A, Reference Method 22. [RCSA §22a-174-18(d)(3)]

#### *c. Record Keeping Requirements*

The Permittee shall make and keep and maintain records of opacity readings. [RCSA §22a-174-4(d)(1)]

### **11. PM/PM<sub>10</sub> (EU-001 and EU-002)**

#### *a. Limitation or Restriction*

- i. 1.0 lb/hr [Permit Nos. 075-0006 and 075-0007]
- ii. 0.4 lb/DT [Permit Nos. 075-0006 and 075-0007]
- iii. 4.21 TPY [Permit Nos. 075-0006 and 075-0007]
- iv. 1.30 lb/ton dry sludge input (Compliance Assurance Monitoring (CAM) limit)[Permit Nos. 075-0006, 075-0007, 40 CFR §60.152(a)(1) and 40 CFR 64]
- v. 0.08 grains per standard cubic foot corrected to 12% CO<sub>2</sub> over a 2-hr. average or 0.18 grams per cubic meter corrected to 12% CO<sub>2</sub> over a 2-hr. period (CAM limit)[Permit Nos. 075-0006, 075-0007, RCSA §22a-174-18(d)(2)(A) and 40 CFR 64]

### **Section III: Applicable Requirements and Compliance Demonstration**

#### *b. Monitoring Requirements*

- i. The Permittee shall stack test every five years to determine compliance with the particulate matter emission limit. [Permit Nos. 075-0006, 075-0007 and 40 CFR §60.152(a)(1)]
- ii. The Permittee shall submit a written intent-to-test (ITT) protocol for the Commissioner's review and written approval not less than 60 days prior to the emissions testing. The ITT submission shall comply with the Department of Energy and Environmental Protection (DEEP) Emission Test Guidelines and Form AE-404. [RCSA §22a-174-5(d)]
- iii. The Permittee shall provide access to the sludge charged so that a well-mixed representative grab sample of the sludge can be obtained. [40 CFR §60.153(a)(2)]
- iv. The Permittee shall collect and analyze a grab sample of the sludge fed to the incinerator once per day. The dry sludge content and the volatile solids content of the sample shall be determined in accordance with the method specified under 40 CFR §60.154(b)(5), except that the determination of volatile solids, step (3)(b) of the method, shall not be deleted. [Permit Nos. 075-0006, 075-0007 and 40 CFR §60.153(b)(5)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep stack test records. [RCSA §22a-174-4(d)(1)]
- ii. The Permittee shall demonstrate stack test emission results are in compliance with permit limitations for each pollutant for which stack testing is required. [Permit Nos. 075-0006 and 075-0007]
- iii. The Permittee shall make and keep daily records of the total solids and volatile solids content of the sludge charged to the incinerator. [Permit Nos. 075-0006, 075-0007 and 40 CFR §60.153(c)(3)]

### **12. SO<sub>x</sub> (EU-001 and EU-002)**

#### *a. Limitation or Restriction*

- i. 4.9 lb/hr [Permit Nos. 075-0006 and 075-0007]
- ii. 1.96 lb/DT [Permit Nos. 075-0006 and 075-0007]
- iii. 20.6 TPY [Permit Nos. 075-0006 and 075-0007]

#### *b. Monitoring Requirements*

- i. The Permittee shall stack test every five years to determine compliance with the SO<sub>x</sub> emission limit, expressed as SO<sub>2</sub>. [Permit Nos. 075-0006 and 075-0007]
- ii. The Permittee shall submit a written ITT protocol for the Commissioner's review and written approval not less than 60 days prior to the emissions testing. The ITT submission shall comply with the DEEP Emission Test Guidelines and Form AE-404. [RCSA §22a-174-5(d)]

### Section III: Applicable Requirements and Compliance Demonstration

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep stack test records. [RCSA §22a-174-4(d)(1)]
- ii. The Permittee shall demonstrate stack test emission results are in compliance with permit limitations for each pollutant for which stack testing is required. [Permit Nos. 075-0006 and 075-0007]

### 13. NO<sub>x</sub> (EU-001 and EU-002)

#### *a. Limitation or Restriction*

- i. 18.1 lb/hr [Permit Nos. 075-0006 and 075-0007]
- ii. 0.33 lb/MMBTU [Permit Nos. 075-0006, 075-0007 and RCSA §22a-174-22(e)(2)(D)]
- iii. 7.24 lb/DT (CAM limit) [Permit Nos. 075-0006, 075-0007 and 40 CFR 64]
- iv. 76.5 TPY [Permit Nos. 075-0006 and 075-0007]

#### *b. Monitoring Requirements*

- i. The Permittee shall stack test every five years to determine compliance with the NO<sub>x</sub> emission limit, expressed as NO<sub>2</sub>. [Permit Nos. 075-0006 and 075-0007]
- ii. The Permittee shall conduct emission testing at least once every five years. The five-year period shall begin once the last NO<sub>x</sub> emission tests are completed. Compliance with the 0.33 lb NO<sub>x</sub>/MMBTU emission limitation shall be determined based on, but not limited to, the average of three 1-hour tests, each performed over a consecutive 60-minute period. [RCSA §22a-174-22(k)(1)]
- iii. Sampling shall be conducted when the source is at normal operating temperature and, unless otherwise allowed by the Commissioner in a permit or order, is operating at or above 90% of maximum rated capacity. [RCSA §22a-174-22(k)(1)]
- iv. The Permittee shall submit a written ITT protocol for the Commissioner's review and written approval not less than 60 days prior to the emissions testing. The ITT submission shall comply with the DEEP Emission Test Guidelines and Form AE-404. [RCSA §22a-174-5(d)]
- v. The Permittee shall program existing Data Acquisition System (DAS) with predictive NO<sub>x</sub> emissions equation based on test results. [40 CFR 64]
- vi. The Permittee shall conduct testing of NO<sub>x</sub> emission and O<sub>2</sub> concentrations while the other parameters (combustion temperatures, FGR damper position, FGR flow rate or VFD fan speed) are varied, in order to develop the ranges of O<sub>2</sub> concentration and other parameters that are indicative of performance necessary for compliance with the NO<sub>x</sub> emission limit. The Permittee shall complete the testing and establishing of ranges within 180 days after the issuance of this Title V permit. [40 CFR §64.4(e)]

### **Section III: Applicable Requirements and Compliance Demonstration**

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep stack test records. [RCSA §22a-174-4(d)(1)]
- ii. The Permittee shall demonstrate stack test emission results are in compliance with permit limitations for each pollutant for which stack testing is required. [Permit Nos. 075-0006 and 075-0007]

#### *d. Reporting Requirements*

The Permittee shall provide records to the commissioner within 30 days of the receipt of a written request from the commissioner or such sooner time as the commissioner may require. [40 CFR 64]

### **14. VOC/THC (EU-001 and EU-002)**

#### *a. Limitation or Restriction*

- i. 19.4 lb/hr [Permit Nos. 075-0006 and 075-0007]
- ii. 50 ppmv @7% O<sub>2</sub> (dry, based on monthly average) [Permit Nos. 075-0006 and 075-0007]
- iii. 82.0 TPY [Permit Nos. 075-0006 and 075-0007]

#### *b. Monitoring Requirements*

- i. The Permittee shall stack test every five years to determine compliance with the Total VOC, THC emission limit. [Permit Nos. 075-0006 and 075-0007]
- ii. The Permittee shall submit a written ITT protocol for the Commissioner's review and written approval not less than 60 days prior to the emissions testing. The ITT submission shall comply with the DEEP Emission Test Guidelines and Form AE-404. [RCSA §22a-174-5(d)]
- iii. The Permittee shall install, maintain and operate a monitoring device that continuously measures and records the total hydrocarbons (THC) concentration of the incinerator exhaust gas in accordance with the requirements of 40 CFR §503.45(a)(2). [Permit Nos. 075-0006, 075-0007, 40 CFR §503.45(a)(1) and 40 CFR §503.46(b)]
- iv. A monitoring device that continuously measures and records information used to determine the moisture content of the incinerator exhaust gas will be required if THC monitoring is required by 40 CFR Part 503. [Permit Nos. 075-0006, 075-0007 and 40 CFR §503.45(c)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep calibration and maintenance records and original instrument recordings for all continuous monitoring instruments and equipment. [Permit Nos. 075-0006, and 075-0007]
- ii. The Permittee shall make and keep stack test records. [RCSA §22a-174-4(d)(1)]
- iii. The Permittee shall demonstrate stack test emission results are in compliance with permit limitations for each pollutant for which stack testing is required. [Permit Nos. 075-0006 and 075-0007]

### **Section III: Applicable Requirements and Compliance Demonstration**

- iv. The Permittee shall make and keep daily records of total hydrocarbons concentrations in the exit gas from the incinerator stack. [40 CFR §503.47(c)]
- v. The Permittee shall make and keep a calibration and maintenance log for the instruments used to measure the total hydrocarbons concentration and oxygen concentration in the exit gas from the sewage sludge incinerator stack, the information needed to determine moisture content in the exit gas, and the combustion temperatures. [40 CFR §503.47(n)]

#### **15. CO (EU-001 and EU-002)**

##### *a. Limitation or Restriction*

- i. 62.2 lb/hr [Permit Nos. 075-0006 and 075-0007]
- ii. 245 ppmv @7% O<sub>2</sub> (dry, based on monthly average) [Permit Nos. 075-0006 and 075-0007]
- iii. 262.0 TPY [Permit Nos. 075-0006 and 075-0007]

##### *b. Monitoring Requirements*

- i. The Permittee shall stack test every five years to determine compliance with the CO emission limit. [Permit Nos. 075-0006 and 075-0007]
- ii. The Permittee shall submit a written ITT protocol for the Commissioner's review and written approval not less than 60 days prior to the emissions testing. The ITT submission shall comply with the DEEP Emission Test Guidelines and Form AE-404. [RCSA §22a-174-5(d)]

##### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep stack test records. [RCSA §22a-174-4(d)(1)]
- ii. The Permittee shall demonstrate stack test emission results are in compliance with permit limitations for each pollutant for which stack testing is required. [Permit Nos. 075-0006 and 075-0007]

#### **16. PM/PM<sub>10</sub> (EU-003)**

##### *a. Limitation or Restriction*

- i. 1.0 lb/hr [Permit No. 075-0008]
- ii. 0.40 lb/DT [Permit No. 075-0008]
- iii. 4.21 TPY [Permit No. 075-0008]
- iv. 1.30 lb/ton dry sludge input (CAM limit)[Permit Nos. 075-0006, 075-0007, 40 CFR §60.152(a)(1) and 40 CFR 64]
- v. 0.08 grains per standard cubic foot corrected to 12% CO<sub>2</sub> over a 2-hr. average or 0.18 grams per cubic meter corrected to 12% CO<sub>2</sub> over a 2-hr. period (CAM limit)[Permit No. 075-0008, RCSA§22a-174-18(d)(2)(A) and 40 CFR 64]

### **Section III: Applicable Requirements and Compliance Demonstration**

#### *b. Monitoring Requirements*

- i. The Permittee shall stack test every five years to determine compliance with the particulate matter emission limit. [Permit No. 075-0008 and 40 CFR §60.152(a)(1)]
- ii. The Permittee shall submit a written ITT protocol for the Commissioner's review and written approval not less than 60 days prior to the emissions testing. The ITT submission shall comply with the DEEP Emission Test Guidelines and Form AE-404. [RCSA §22a-174-5(d)]
- iii. The Permittee shall provide access to the sludge charged so that a well-mixed representative grab sample of the sludge can be obtained. [40 CFR §60.153(a)(2)]
- iv. The Permittee shall collect and analyze a grab sample of the sludge fed to the incinerator once per day. The dry sludge content and the volatile solids content of the sample shall be determined in accordance with the method specified under 40 CFR §60.154(b)(5), except that the determination of volatile solids, step (3)(b) of the method, shall not be deleted. [Permit No. 075-0008 and 40 CFR §60.154(b)(5)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep stack test records. [RCSA §22a-174-4(d)(1)]
- ii. The Permittee shall demonstrate stack test emission results are in compliance with permit limitations for each pollutant for which stack testing is required. [Permit No. 075-0008]
- iii. The Permittee shall make and keep daily records of the total solids and volatile solids content of the sludge charged to the incinerator. [Permit No. 075-0008 and 40 CFR §60.153(c)(3)]

### **17. SO<sub>x</sub> (EU-003)**

#### *a. Limitation or Restriction*

- i. 4.9 lb/hr [Permit No. 075-0008]
- ii. 1.96 lb/DT [Permit No. 075-0008]
- iii. 500 ppmv@7% O<sub>2</sub> [Permit No. 075-0008]
- iv. 20.64 TPY [Permit No. 075-0008]

#### *b. Monitoring Requirements*

- i. The Permittee shall stack test every five years to determine compliance with the SO<sub>x</sub> emission limit, expressed as SO<sub>2</sub>. [Permit No. 075-0008]
- ii. The Permittee shall submit a written ITT protocol for the Commissioner's review and written approval not less than 60 days prior to the emissions testing. The ITT submission shall comply with the DEEP Emission Test Guidelines and Form AE-404. [RCSA §22a-174-5(d)]

### Section III: Applicable Requirements and Compliance Demonstration

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep stack test records. [RCSA §22a-174-4(d)(1)]
- ii. The Permittee shall demonstrate stack test emission results are in compliance with permit limitations for each pollutant for which stack testing is required. [Permit No. 075-0008]

### 18. NO<sub>x</sub> (EU-003)

#### *a. Limitation or Restriction*

- i. 18.10 lb/hr [Permit No. 075-0008]
- ii. 0.33 lb/MMBTU [Permit No. 075-0008, RCSA §22a-174-22(e)(2)(D)]
- iii. 7.24 lb/DT (CAM limit) [Permit No. 075-0008 and 40 CFR 64]
- iv. 76.24 TPY [Permit No. 075-0008]

#### *b. Monitoring Requirements*

- i. The Permittee shall stack test every five years to determine compliance with the NO<sub>x</sub> emission limit, expressed as NO<sub>2</sub>. [Permit No. 075-0008]
- ii. The Permittee shall conduct emission testing at least once every five years. The five-year period shall begin once the last NO<sub>x</sub> emission tests are completed. Compliance with the 0.33 lb NO<sub>x</sub>/MMBTU emission limitation shall be determined based on, but not limited to, the average of three 1-hour tests, each performed over a consecutive 60-minute period. [RCSA §22a-174-22(k)(1)]
- iii. Sampling shall be conducted when the source is at normal operating temperature and, unless otherwise allowed by the Commissioner in a permit or order, is operating at or above 90% of maximum rated capacity. [RCSA §22a-174-22(k)(1)]
- iv. The Permittee shall submit a written ITT protocol for the Commissioner's review and written approval not less than 60 days prior to the emissions testing. The ITT submission shall comply with the DEEP Emission Test Guidelines and Form AE-404. [RCSA §22a-174-5(d)]
- v. The Permittee shall program existing DAS with predictive NO<sub>x</sub> emissions equation based on test results. [40 CFR 64]
- vi. The Permittee shall conduct testing of NO<sub>x</sub> emission and O<sub>2</sub> concentrations while the other parameters (combustion temperatures, FGR damper position, FGR flow rate or VFD fan speed) are varied, in order to develop the ranges of O<sub>2</sub> concentration and other parameters that are indicative of performance necessary for compliance with the NO<sub>x</sub> emission limit. The Permittee shall complete the testing and establishing of ranges within 180 days after the issuance of this Title V permit. [40 CFR §64.4(e)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep stack test records. [RCSA §22a-174-4(d)(1)]

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- ii. The Permittee shall demonstrate stack test emission results are in compliance with permit limitations for each pollutant for which stack testing is required. [Permit No. 075-0008]

#### *d. Reporting Requirements*

The Permittee shall provide records to the commissioner within 30 days of the receipt of a written request from the commissioner or such sooner time as the commissioner may require. [40 CFR 64]

### **19. VOC/THC (EU-003)**

#### *a. Limitation or Restriction*

- i. 7.80 lb/hr [Permit No. 075-0008]
- ii. 50 ppmv @7% O<sub>2</sub> (dry, based on monthly average) [Permit No. 075-0008]
- iii. 32.85 TPY [Permit No. 075-0008]

#### *b. Monitoring Requirements*

- i. The Permittee shall stack test every five years to determine compliance with the Total VOC, THC emission limit. [Permit No. 075-0008]
- ii. The Permittee shall submit a written ITT protocol for the Commissioner's review and written approval not less than 60 days prior to the emissions testing. The ITT submission shall comply with the DEEP Emission Test Guidelines and Form AE-404. [RCSA §22a-174-5(d)]
- iii. The Permittee shall install, maintain and operate a monitoring device that continuously measures and records the THC concentration of the incinerator exhaust gas in accordance with the requirements of 40 CFR §503.45(a)(2). [Permit No. 075-0008, 40 CFR §503.45(a)(1) and 40 CFR §503.46(b)]
- iv. A monitoring device that continuously measures and records information used to determine the moisture content of the incinerator exhaust gas will be required if THC monitoring is required by 40 CFR Part 503. [Permit No. 075-0008 and 40 CFR §503.45(c)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep calibration and maintenance records and original instrument recordings for all continuous monitoring instruments and equipment. [Permit No. 075-0008]
- ii. The Permittee shall make and keep stack test records. [RCSA §22a-174-4(d)(1)]
- iii. The Permittee shall demonstrate stack test emission results are in compliance with permit limitations for each pollutant for which stack testing is required. [Permit No. 075-0008]
- iv. The Permittee shall make and keep daily records of total hydrocarbons concentrations in the exit gas from the incinerator stack. [40 CFR §503.47(c)]
- v. The Permittee shall make and keep a calibration and maintenance log for the instruments used to measure the total hydrocarbons concentration and oxygen concentration in the exit gas from the sewage sludge incinerator stack, the information needed to determine moisture content in the exit



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gas, and the combustion temperatures. [40 CFR §503.47(n)]

#### 20. CO (EU-003)

*a. Limitation or Restriction*

- i. 24.33 lb/hr [Permit No. 075-0008]
- ii. 245 ppmv @7% O<sub>2</sub> (dry, based on monthly average) [Permit No. 075-0008]
- iii. 102.48 TPY [Permit No. 075-0008]

*b. Monitoring Requirements*

- i. The Permittee shall stack test every five years to determine compliance with the CO emission limit. [Permit No. 075-0008]
- ii. The Permittee shall submit a written ITT protocol for the Commissioner's review and written approval not less than 60 days prior to the emissions testing. The ITT submission shall comply with the DEEP Emission Test Guidelines and Form AE-404. [RCSA §22a-174-5(d)]

*c. Record Keeping Requirements*

- i. The Permittee shall make and keep stack test records. [RCSA §22a-174-4(d)(1)]
- ii. The Permittee shall demonstrate stack test emission results are in compliance with permit limitations for each pollutant for which stack testing is required. [Permit No. 075-0008]

#### 21. HAP

*a. Limitation or Restriction*

$$MASC = \{(0.885 * HLV) * (X + 1.08 * V^{0.64})^{1.56} \exp[10.33 * (H - 20)^2 * (X + 1.08 * V^{0.64})^{-1.56}]\} / V$$

MASC values are calculated based on the 8-hour HLV [RCSA §22a-174-29]

*b. Monitoring Requirements*

- i. A GC/MS of VOC sample is required for the following pollutants to determine compliance with the requirements of RCSA §22a-174-29, the HAP section of the RCSA. [Permit Nos. 075-0006, 075-0007 and 075-0008]:
  - 1. Acrylonitrile
  - 2. Benzene
  - 3. Carbon Tetrachloride
  - 4. Chlorobenzene
  - 5. Chloroform
  - 6. Di (2-Ethyl Hexyl) Phthalate
  - 7. 1, 2-Dichlorobenzene
  - 8. Ethylbenzene
  - 9. Ethylene Dichloride
  - 10. Methylene Chloride
  - 11. Perchloroethylene

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12. Phenol
  13. Toluene
  14. 1,1,1-Trichloroethane
  15. Trichloroethylene
  16. Polychlorinated Biphenyls
- ii. Testing for the following additional metals is required every five years to determine compliance with the requirements of RCSA §22a-174-29, the HAP section of the RCSA. [Permit Nos. 075-0006, 075-0007 and 075-0008]:
1. Arsenic (As)
  2. Cadmium (Cd)
  3. Chromium (Cr)
  4. Copper (Cu)
  5. Lead (Pb)
  6. Manganese (Mn)
  7. Nickel(Ni)
  8. Selenium(Se)
  9. Zinc (Zn)
- iii. Lead emissions shall not cause, or significantly contribute to a violation of the NAAQS. [Permit Nos. 075-0006, 075-0007, 075-0008 and RCSA §22a-174-3a(i)]
- iv. The Permittee shall demonstrate that the HAPs actual stack concentration (ASC) does not exceed the maximum allowable stack concentration (MASC) by using the equation in RCSA §22a-174-29(c). The Permittee shall be allowed to use the adjustment factor in RCSA §22a-174-29(i). [RCSA §22a-174-29(b)]
- c. Record Keeping Requirements*
- i. The Permittee shall make and keep records of all compounds used, Material Safety Data Sheets (MSDS) or the manufacturer's technical data sheets. [RCSA §22a-174-4(d)(1)]
  - ii. The Permittee shall make and keep records of both MASC and ASC calculations in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) for each HAP emitted. [RCSA §22a-174-4(d)(1)]
  - iii. The Permittee shall make and keep stack test records. [RCSA §22a-174-4(d)(1)]
  - iv. The Permittee shall demonstrate stack test emission results are in compliance with permit limitations for each pollutant for which stack testing is required. [Permit Nos. 075-0006, 075-0007 and 075-0008]
  - v. The Permittee shall make and keep records of the concentration of Lead, Arsenic, Cadmium, Chromium, and Nickel in the sewage sludge fed to the incinerator. [40 CFR, §503.47(b)]
  - vi. The Permittee shall make and keep a record of the dispersion factor for the site where the sewage sludge incinerator is located. [40 CFR §503.47(k)]
  - vii. The Permittee shall make and keep a record of the risk specific concentration for chromium calculated using equation (6) in 40 CFR §503.43(d)(3). [40 CFR §503.47(m)]

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### 22. Stack Parameters

#### a. Limitation or Restriction

- i. Minimum Stack Height: 107 feet for each unit [Permit Nos. 075-0006, 075-0007 and 075-0008]
- ii. Minimum Distance to Property Line: 318 feet for EU-001, 278 feet for EU-002 and 238 feet for EU-003 [Permit Nos. 075-0006, 075-0007 and 075-0008]
- iii. Exhaust Gas Flowrate Range: 12,000 to 32,000 acfm for each unit [Permit Nos. 075-0006, 075-0007 and 075-0008]
- iv. Stack I.D. 5 feet for EU-001 and EU-002 [Permit Nos. 075-0006 and 075-0007]
- v. Minimum Stack Exit Temperature: 85°F (typical at normal operating conditions) for each unit [Permit Nos. 075-0006, 075-0007 and 075-0008]

#### b. Monitoring Requirements

The Permittee shall document compliance with the stack parameters. [RCSA §22a-174-4(d)(1)]

#### c. Record Keeping Requirements

The Permittee shall make and keep a record of the stack height of the incinerators. [40 CFR §503.47(j)]

### 23. Beryllium

#### a. Limitation or Restriction

0.022 pounds (10 grams) over a 24-hour period [Permit Nos. 075-0006, 075-0007, 075-0008 and 40 CFR §61.32(a)]

#### b. Monitoring Requirements

- i. Stack testing is required every five years to determine compliance with the beryllium emission limit. [Permit Nos. 075-0006, 075-0007, 075-0008 and 40 CFR §61.33(a)]
- ii. The burning of beryllium and/or beryllium-containing waste, except propellants, is prohibited except in incinerators, emissions from which must comply with the standard. [40 CFR §61.32(c)]

#### c. Record Keeping Requirements

- i. The Permittee shall make and keep records of emission test results and other data needed to determine total emissions. Such records shall be retained at the source and made available, for inspection by the Administrator. [40 CFR §61.33(e)]
- ii. The Permittee shall make and keep stack test records. [RCSA §22a-174-4(d)(1)]
- iii. The Permittee shall demonstrate stack test emission results are in compliance with permit limitations for each pollutant for which stack testing is required. [Permit Nos. 075-0006, 075-0007 and 075-0008]

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#### *d. Reporting Requirements*

All samples shall be analyzed and beryllium emissions shall be determined within 30 days after the source test. All determinations shall be reported to the Administrator before the close of the next business day following such determination. [40 CFR §61.33(d)]

#### **24. Mercury**

##### *a. Limitation or Restriction*

7.055 pounds (3,200 grams) over a 24-hour period [Permit Nos. 075-0006, 075-0007, 075-0008 and 40 CFR §61.52(b)]

##### *b. Monitoring Requirements*

- i. Stack testing is required every five years to determine compliance with the mercury emission limit. [Permit Nos. 075-0006, 075-0007, 075-0008 and 40 CFR §61.53(d)]
- ii. The Permittee shall demonstrate compliance with the emission standard by testing emissions per 40 CFR §61.53(d) or by sludge sampling per 40 CFR §61.54. [40 CFR §61.53(d) and §61.54]

##### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of emission test results and other data needed to determine total emissions. Such records shall be retained at the source and made available, for inspection by the Administrator. [40 CFR §61.53(d)(6)]
- ii. The Permittee shall make and keep stack test records. [RCSA §22a-174-4(d)(1)]
- iii. The Permittee shall demonstrate stack test emission results are in compliance with permit limitations for each pollutant for which stack testing is required. [Permit Nos. 075-0006, 075-0007 and 075-0008]

##### *d. Reporting Requirements*

All samples shall be analyzed and mercury emissions shall be determined within 30 days after the stack test. Each determination shall be reported to the Administrator within 15 calendar days following the date such determination is completed. [40 CFR §61.53(d)(5)]

#### **25. Operation and Maintenance Requirements**

##### *a. Limitation or Restriction*

- i. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- ii. The Permittee shall properly operate the control equipment at all times that this equipment is in operation and emitting air pollutants. [Permit Nos. 075-0006, 075-0007 and 075-0008]

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- iii. The Permittee shall minimize dilution air during startup. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- iv. The Permittee shall minimize dilution air during operation. [Permit Nos. 075-0006, 075-0007 and 075-0008]

#### *b. Monitoring Requirements*

##### *i. During Startup the Permittee shall:*

- 1. Verify that the emergency bypass stack damper linkage to insure the damper is in the closed position. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- 2. Verify operation of the ash outlet drop damper to insure it is in the closed position, yet operates freely to allow ash to drop through. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- 3. Verify operation of the ambient air inlet damper. The damper shall be in the closed position for startup. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- 4. Visually inspect center shaft plugs, arms, sockets and flanges for cracks or damage that would allow center shaft air to escape into the incinerator. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- 5. Inspect hearth access door seals and close doors tightly. Close all inspection ports. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- 6. Place the center shaft return air damper in the closed position. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- 7. Inspect ductwork and incinerator shell for air inleakage. [Permit Nos. 075-0006, 075-0007 and 075-0008]

##### *ii. During Operation the Permittee shall:*

- 1. Open the ambient air inlet damper only as needed to provide continuous combustion. Continue to monitor combustion oxygen (O<sub>2</sub>) and regulate the damper to minimize excess air. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- 2. Operate the center shaft cooling air fan to maintain shaft cooling. Open the center shaft return air damper as needed. Continue to monitor combustion temperature and regulate the damper to minimize excess air. The hearth combustion temperature shall not exceed the permit limits. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- 3. If the incinerator hearth access doors are opened to remove slag clinkers, close them tightly immediately afterward. Minimize the time the inspection ports are opened, and close them tightly afterward. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- 4. The FGR fan shall have a desired operating temperature of 300 to 1200°F and shall not exceed the maximum operating temperature of 1300°F. The FGR cooling fan shall be operated as needed to obtain the desired FGR fan operating temperature. The FGR cooling fan damper shall be opened in increments while maintaining the desired operating temperature of the FGR fan. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- 5. Verify operation of the ash outlet drop damper to insure it is operating freely to allow the ash to discharge and then close between discharges. [Permit Nos. 075-0006, 075-0007 and 075-0008]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of manufacturer's specifications and written recommendations for all equipment. [RCSA §22a-174-4(d)(1)]

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- ii. The Permittee shall make and keep documentation of operation and maintenance procedures. [RCSA §22a-174-4(d)(1)]

#### 26. Flue Gas O<sub>2</sub> Concentration

##### a. Limitation or Restriction

Not Applicable

##### b. Monitoring Requirements

- i. The Permittee shall calibrate, maintain and operate oxygen monitors using procedures that take into account manufacturer's specifications. [40 CFR 64]
- ii. The Permittee shall calibrate, maintain and operate flue gas recirculation (FGR) damper switch or variable frequency drive (VFD) fan or FGR ductwork (air flow rate) using procedures that take into account manufacturer's specifications. [40 CFR 64]
- iii. The Permittee shall determine annually the coefficient of correlation between the hearth No.3 exhaust gas dry O<sub>2</sub> concentration and stack gas dry O<sub>2</sub> concentration in accordance with EPA and DEEP approved procedures. If the minimum coefficient of correlation is less than 0.8, the Permittee shall immediately implement corrective measures to further reduce dilution air infiltration into the exhaust gas stream, and shall retest until the coefficient of correlation is 0.8 or greater. [Permit Nos. 075-0006, 075-0007, EPA's letter to MDC dated May 27, 2008, 40 CFR §60.153(b)(2) and 40 CFR §503.45(b)]
- iv. The Permittee shall operate and maintain the stack O<sub>2</sub> CEMS consistent with the applicable provisions of 40 CFR Part 60, Subparts B and F and DEEP CEMS guidelines. [Permit Nos. 075-0006, 075-0007, EPA's letter to MDC dated May 27, 2008 and 40 CFR §60.153(b)(2)]
- v. The Permittee shall maintain the availability of CEM data from the O<sub>2</sub> analyzers, for no less than 90% of the total operating hours of the source in any calendar quarter. Data availability shall be calculated using the equation in RCSA 22a-174-4(c)(5)(A)(iv). [RCSA §22a-174-4(c)(5)(A)(iii)]
- vi. The Permittee shall conduct testing of NO<sub>x</sub> emission and O<sub>2</sub> concentrations while the other parameters (combustion temperatures, FGR damper position, FGR flow rate or VFD fan speed) are varied, in order to develop the ranges of O<sub>2</sub> concentration and other parameters that are indicative of performance necessary for compliance with the NO<sub>x</sub> emission limit. The Permittee shall complete the testing and establishing of ranges within 180 days after the issuance of this Title V permit. [40 CFR §64.4(e)]

##### c. Record Keeping Requirements

- i. The Permittee shall make and keep a calibration and maintenance log for the instruments used to measure the total hydrocarbons concentration and oxygen concentration in the exit gas from the sewage sludge incinerator stack, the information needed to determine moisture content in the exit gas, and the combustion temperatures. [40 CFR §503.47(n)]
- ii. The Permittee shall make and keep daily records of the measured oxygen content of the incinerator exhaust gas. [40 CFR §60.153(c)(2)]

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- iii. The Permittee shall make and keep daily records of the oxygen concentration and information used to measure moisture content from the sewage sludge incinerator stack. [40 CFR §503.47(h)]
- iv. The Permittee shall automatically and continuously record the flue gas oxygen concentration on a strip chart or digital data acquisition system averaged over each 1-hour incinerator operating period. [40 CFR 64]

#### *d. Reporting Requirements*

- i. The Permittee shall submit a written report to the commissioner and to EPA Region I for each semi-annual period ending June 30 and December 31 of each year. The semi-annual reports shall be submitted on or before March 1 and September 1 following the end of the semi-annual period. The report shall contain a record of the average oxygen content in the incinerator exhaust for each period of 1-hour duration or more that the oxygen content of the incinerator exhaust gas exceeds the average oxygen content measured during the most recent performance test by more than three percent. [Permit Nos. 075-0006, 075-0007 and 40 CFR §60.155(a)(2)]
- ii. The Permittee shall submit annually the correlation report, at the same time as the Title V permit compliance certification is due, to EPA and the DEEP. Failure to submit accurate, complete, and timely correlation reports may be cause for EPA and/or the DEEP to require oxygen monitoring as stipulated in 40 CFR §60.153(b)(2). [Permit Nos. 075-0006, 075-0007, EPA's letter to MDC dated May 27, 2008 and 40 CFR §60.153(b)(2)]

#### **B. GEU-002 (Five Identical Final Effluent Pumps-Caterpillar Diesel Generators) (RICE MACT Designation: Non-Emergency, Existing CI, 300 < Bhp ≤ 500, Constructed before 6/12/06) (Compliance Date: 9/30/13)**

All conditions in Section III. B of this permit apply to each pump individually unless otherwise noted.

##### **1. Maximum Diesel Fuel Consumption**

###### *a. Limitation or Restriction*

107,500 gal over any consecutive 12 month period for the combination of the five Final Effluent Pumps [Permit Nos. 075-0213 through 075-0217]

###### *b. Monitoring Requirements*

When more than one fuel supply tank is to service the sources covered by Permit Nos. 075-0213, 075-0214, 075-0215, 075-0216 and 075-0217 or when other sources are supplied by one fuel tank, the Permittee shall use a fuel metering device to continuously monitor fuel feed to sources covered by Permit Nos. 075-0213, 075-0214, 075-0215, 075-0216 and 075-0217. [Permit Nos. 075-0213 through 075-0217]

###### *c. Record Keeping Requirements*

The Permittee shall make and keep records of annual fuel consumption. Annual fuel consumption (combined for Permit Nos. 075-0213, 075-0214, 075-0215, 075-0216, and 075-0217) shall be based on any consecutive 12 month time period and shall be determined by adding (for each fuel) the current month's fuel usage to that of the previous 11 months. The Permittee shall make these calculations within

### Section III: Applicable Requirements and Compliance Demonstration

30 days of the end of the previous month. [Permit Nos. 075-0213 through 075-0217]

#### 2. Fuel Sulfur Content

##### a. Limitation or Restriction

- i. 0.05% by weight, dry basis [Permit Nos. 075-0213 through 075-0217]
- ii. The Permittee shall use diesel fuel that meets the requirements in 40 CFR §80.510(b) for nonroad diesel fuel. [40 CFR §63.6604]

##### b. Record Keeping Requirements

The Permittee shall make and keep records of the fuel certification for each delivery of fuel from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel. [Permit Nos. 075-0213 through 075-0217]

#### 3. TSP/PM<sub>10</sub>

##### a. Limitation or Restriction

- i. 0.30 lb/hr [Permit Nos. 075-0213 through 075-0217]
- ii. 0.10 lb/MMBTU [Permit Nos. 075-0213 through 075-0217]
- iii. 0.74 TPY [Permit Nos. 075-0213 through 075-0217]

##### b. Monitoring Requirements

Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from vendor data. [Permit Nos. 075-0213 through 075-0217]

##### c. Record Keeping Requirements

The Permittee shall make and keep records of emission rate calculations. [Permit Nos. 075-0213 through 075-0217 and RCSCA §22a-174-4(d)(1)]

#### 4. SO<sub>x</sub>

##### a. Limitation or Restriction

- i. 0.15 lb/hr [Permit Nos. 075-0213 through 075-0217]
- ii. 0.05 lb/MMBTU [Permit Nos. 075-0213 through 075-0217]
- iii. 0.38 TPY [Permit Nos. 075-0213 through 075-0217]



### **Section III: Applicable Requirements and Compliance Demonstration**

*b. Monitoring Requirements*

Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from vendor data. [Permit Nos. 075-0213 through 075-0217]

*c. Record Keeping Requirements*

The Permittee shall make and keep records of emission rate calculations. [Permit Nos. 075-0213 through 075-0217 and RCSA §22a-174-4(d)(1)]

#### **5. NO<sub>x</sub>**

*a. Limitation or Restriction*

- i. 8.49 lb/hr [Permit Nos. 075-0213 through 075-0217]
- ii. 2.88 lb/MMBTU [Permit Nos. 075-0213 through 075-0217]
- iii. 21.23 TPY [Permit Nos. 075-0213 through 075-0217]

*b. Monitoring Requirements*

Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from vendor data. [Permit Nos. 075-0213 through 075-0217]

*c. Record Keeping Requirements*

The Permittee shall make and keep records of emission rate calculations. [Permit Nos. 075-0213 through 075-0217 and RCSA §22a-174-4(d)(1)]

#### **6. VOC**

*a. Limitation or Restriction*

- i. 0.26 lb/hr [Permit Nos. 075-0213 through 075-0217]
- ii. 0.09 lb/MMBTU [Permit Nos. 075-0213 through 075-0217]
- iii. 0.65 TPY [Permit Nos. 075-0213 through 075-0217]

*b. Monitoring Requirements*

Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from vendor data. [Permit Nos. 075-0213 through 075-0217]

*c. Record Keeping Requirements*

The Permittee shall make and keep records of emission rate calculations. [Permit Nos. 075-0213 through 075-0217 and RCSA §22a-174-4(d)(1)]

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#### 7. CO

##### *a. Limitation or Restriction*

- i. 2.37 lb/hr [Permit Nos. 075-0213 through 075-0217]
- ii. 0.81 lb/MMBTU [Permit Nos. 075-0213 through 075-0217]
- iii. 5.93 TPY [Permit Nos. 075-0213 through 075-0217]
- iv. The Permittee shall limit concentration of CO in the stationary RICE exhaust to 49 ppmvd @ 15 % O<sub>2</sub> or reduce CO emissions by 70 % or more except during periods of startup. [40 CFR §63.6603(a), Table 2d, No. 2]
- v. The Permittee shall be in compliance with the applicable emission limitations in 40 CFR 63, Subpart ZZZZ at all times. [40 CFR §63.6605(a)]

##### *b. Monitoring Requirements*

- i. Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from vendor data. [Permit Nos. 075-0213 through 075-0217]
- ii. When complying with the outlet emission concentration limit, the Permittee shall measure the O<sub>2</sub> at the outlet of the control device using 40 CFR 60, Appendix A, Method 3 or 3A or 3B or ASTM Method D6522-00 within 180 days after the compliance date. Measurements to determine O<sub>2</sub> must be made at the same time as the measurements for CO concentration. [40 CFR §63.6612(a), Table 4, No.1]
- iii. When complying with the percent reduction limit, the Permittee shall measure the O<sub>2</sub> at the inlet and outlet of the control device using 40 CFR 60, Appendix A, Method 3 or 3A or 3B or ASTM Method D6522-00 within 180 days after the compliance date. Measurements to determine O<sub>2</sub> must be made at the same time as the measurements for CO concentration. [40 CFR §63.6612(a), Table 4, No.1]
- iv. When complying with the outlet emission concentration limit, the Permittee shall measure the CO at the outlet of the control device using ASTM D6522-00 or 40 CFR 60, Appendix A, Method 10 within 180 days after the compliance date. The CO concentration must be at 15% O<sub>2</sub>, dry basis. [40 CFR §63.6612(a), Table 4, No.1]
- v. When complying with the percent reduction limit, the Permittee shall measure the CO at the inlet and outlet of the control device using ASTM D6522-00 or 40 CFR 60, Appendix A, Method 10 within 180 days after the compliance date. The CO concentration must be at 15% O<sub>2</sub>, dry basis. [40 CFR §63.6612(a), Table 4, No.1]
- vi. The Permittee is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in 40 CFR §63.6612(b)(1) through (4). [40 CFR §63.6612(b)]
- vii. The Permittee shall conduct each applicable performance test in 40 CFR 63, Subpart ZZZZ, Tables 3 and 4. [40 CFR §63.6620(a)]

### **Section III: Applicable Requirements and Compliance Demonstration**

- viii. Each performance test must be conducted according to the requirements specified in 40 CFR 63, Subpart ZZZZ, Table 4. The Permittee does not need to start up the engine solely to conduct the performance test if it is a non-operational stationary RICE that is subject to performance testing. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. [40 CFR §63.6620(b)]
- ix. The Permittee shall conduct three separate test runs for each performance test required in 40 CFR §63.6620, as specified in 40 CFR §63.7(e)(3). Each test run must last at least 1 hour. [40 CFR §63.6620(d)]
- x. The Permittee shall use Equation 1 of 40 CFR §63.6620 when determining compliance with the percent reduction requirement. [40 CFR §63.6620(e)(1)]
- xi. When complying with the outlet emission concentration limit, the Permittee shall normalize the carbon monoxide (CO) concentration at the outlet of the control device to a dry basis and to 15 %O<sub>2</sub>, or an equivalent percent carbon dioxide (CO<sub>2</sub>). If pollutant concentrations are to be corrected to 15 %O<sub>2</sub> and CO<sub>2</sub> concentration is measured in lieu of oxygen concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs 40 CFR §63.6620(e)(2)(i) through (iii). [40 CFR §63.6620(e)(2)]
- xii. When complying with the percent reduction limit, the Permittee shall normalize the carbon monoxide (CO) concentration at the inlet and outlet of the control device to a dry basis and to 15 %O<sub>2</sub>, or an equivalent percent carbon dioxide (CO<sub>2</sub>). If pollutant concentrations are to be corrected to 15 %O<sub>2</sub> and CO<sub>2</sub> concentration is measured in lieu of oxygen concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs 40 CFR §63.6620(e)(2)(i) through (iii). [40 CFR §63.6620(e)(2)]
- xiii. The Permittee shall demonstrate continuous compliance with each applicable emission limitation in 40 CFR 63, Subpart ZZZZ, Table 2d. [40 CFR §63.6640(a)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of emission rate calculations. [Permit Nos. 075-0213 through 075-0217 and RCSA §22a-174-4(d)(1)]
- ii. The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the Notification of Compliance Status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided. [40 CFR §63.6620(i)]

### **Section III: Applicable Requirements and Compliance Demonstration**

- iii. The Permittee shall make and keep a copy of each notification and report submitted to comply with 40 CFR 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in 40 CFR §63.10(b)(2)(xiv). [40 CFR §63.6655(a)(1)]
- iv. The Permittee shall make and keep records of performance tests and performance evaluations as required in 40 CFR §63.10(b)(2)(viii). [40 CFR §63.6655(a)(3)]
- v. The Permittee shall make and keep records of CO emission or percent reduction sufficient to demonstrate compliance with the limits of 40 CFR §63.6603(a). [RCSA 22a-174-33(j)(1)(K)(ii)]

#### *d. Reporting Requirements*

- i. The Permittee shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 CFR §63.6645. [40 CFR §63.6630(c)]
- ii. The Permittee shall report each instance in which they did not meet each applicable emission limitation or operating limitation in 40 CFR 63, Subpart ZZZZ, Table 2d. These instances are deviations from the emission and operating limitations in 40 CFR 63, Subpart ZZZZ. These deviations must be reported according to the requirements in 40 CFR §63.6650. If the Permittee changes the catalyst, they must reestablish the values of the operating parameters measured during the initial performance test. When the Permittee reestablishes the values of the operating parameters, the Permittee must also conduct a performance test to demonstrate that they are meeting the required emission limitation applicable to the stationary RICE. [40 CFR §63.6640(b)]
- iii. The Permittee shall submit all of the applicable notifications in 40 CFR §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) by the dates specified. [40 CFR §63.6645(a)]
- iv. The Permittee shall 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 §63.7(b)(1). [40 CFR §63.6645(g)]
- v. The Permittee shall submit a semiannual compliance report in accordance with Section VI.E of this Title V permit and the report must contain the following: [40 CFR §63.6650(a), 40 CFR §63.6650(e), Table 7, No. 1]
  - 1. If there are no deviations from any applicable emission limitations or operating limitations, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in 40 CFR §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or
  - 2. If there was a deviation from any emission limitation or operating limitation during the reporting period, the information in 40 CFR §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in 40 CFR §63.8(c)(7), the information in 40 CFR §63.6650(e); or
  - 3. If a malfunction occurred during the reporting period, the information in 40 CFR §63.6650(c)(4).

### **Section III: Applicable Requirements and Compliance Demonstration**

- vi. 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), the Permittee shall submit the first and subsequent compliance reports in accordance with Section VI.E of this Title V permit. [40 CFR §63.6650(b)(5)]
- vii. The compliance report must contain the information in 40 CFR §63.6650(c)(1) through (6). [40 CFR §63.6650(c)]
- viii. For each deviation from an emission or operating limitation that occurs for a stationary RICE where the Permittee is not using a CMS to comply with the emission or operating limitations in this subpart, the compliance report must contain the information in 40 CFR §63.6650(c)(1) through (4) and the information in paragraphs 40 CFR §63.6650(d)(1) and (2). [40 CFR §63.6650(d)]
- ix. Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 76 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR §70.6 (a)(3)(iii)(A) or 40 CFR §71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR §70.6(a)(3)(iii)(A) or 40 CFR §71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. [40 CFR §63.6650(f)]

#### **8. Sulfuric Acid**

*a. Limitation or Restriction*

1480.00  $\mu\text{g}/\text{m}^3$  [Permit Nos. 075-0213 through 075-0217]

*b. Monitoring Requirements*

Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from vendor data. [Permit Nos. 075-0213 through 075-0217]

*c. Record Keeping Requirements*

The Permittee shall make and keep records of emission rate calculations. [Permit Nos. 075-0213 through 075-0217 and RCSA §22a-174-4(d)(1)]

#### **9. Operation and Maintenance**

*a. Limitation or Restriction*

- i. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations. [Permit Nos. 075-0213 through 075-0217]
- ii. If the Permittee owns or operates an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, the Permittee shall comply with either 40 CFR §60.6625(g)(1) or 40 CFR §60.6625 (g)(2). The Permittee shall

### **Section III: Applicable Requirements and Compliance Demonstration**

follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. [40 CFR §63.6625(g)]

- iii. The Permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6603(a), Table 2d, No. 2, 40 CFR §60.6625(h)]
- iv. At all times the Permittee shall 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 the Permittee to make any further efforts to reduce emissions if levels required by the standards of 40 CFR 63, Subpart ZZZZ 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. [40 CFR §63.6605(b)]

#### *b. Monitoring Requirements*

Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from vendor data. [Permit Nos. 075-0213 through 075-0217]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of emission rate calculations. [Permit Nos. 075-0213 through 075-0217 and RCSA §22a-174-4(d)(1)]
- ii. The Permittee shall make and keep records of the occurrence and duration of each malfunction of operation ( i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR §63.6655(a)(2)]
- iii. The Permittee shall make and keep records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR §63.6655(a)(4)]
- iv. The Permittee shall make and keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the Permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to their own maintenance plan. [40 CFR §63.6655(e)]

### Section III: Applicable Requirements and Compliance Demonstration

**C. EU-012 (Emergency Generator-Caterpillar Diesel Generator Model 3412)  
(RICE MACT Designation: Emergency, Existing CI, >500 Bhp, Constructed before 6/12/06)  
(Compliance Date: 5/3/13)**

**1. Maximum Diesel Fuel Consumption**

*a. Limitation or Restriction*

14,700 gal over a 12 month period [Permit No. 075-0212]

*b. Monitoring Requirements*

When more than one fuel supply tank is to service this source or when multiple sources are supplied by one fuel tank, the Permittee shall use a fuel metering device to continuously monitor fuel feed to this permitted source. [Permit No. 175-0212]

*c. Record Keeping Requirements*

Fuel consumption shall be based on any consecutive 12 month time period and shall be determined by adding (for each fuel) the current month's fuel usage to that of the previous 11 months. The Permittee shall make and keep these calculations monthly. [Permit No. 075-0212]

**2. Fuel Sulfur Content**

*a. Limitation or Restriction*

i. 0.05% by weight, dry basis [Permit No. 075-0212]

ii. Beginning January 1, 2015, the Permittee shall use diesel fuel that meets the requirements in 40 CFR §80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. [40 CFR §63.6604(b)]

*b. Monitoring Requirements*

Each oil fuel shipment for this equipment shall include a shipping receipt from the fuel supplier and a certification from the fuel supplier certifying the type of fuel in the shipment and the weight percent of sulfur in the fuel. The shipping receipt and/or certification shall include the name of the oil supplier, the sulfur content of the oil and the method used to determine the sulfur content of the oil. [Permit No. 075-0212]

*c. Record Keeping Requirements*

The Permittee shall make and keep records of each oil fuel shipping receipt and certification. [Permit No. 075-0212]

**3. TSP/PM<sub>10</sub>**

*a. Limitation or Restriction*

i. 0.811 lb/hr [Permit No. 075-0212]

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ii. 0.100 lb/MMBTU [Permit No. 075-0212]

iii. 0.101 TPY [Permit No. 075-0212]

*b. Monitoring Requirements*

Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from AP-42, fifth edition dated January 1995, and FIRE, version 5.0, dated August 1995. [Permit No. 075-0212]

*c. Record Keeping Requirements*

The Permittee shall make and keep records of emission rate calculations. [RCSA §22a-174-4(d)(1)]

#### **4. SO<sub>x</sub>**

*a. Limitation or Restriction*

i. 2.353 lb/hr [Permit No. 075-0212]

ii. 0.0290 lb/MMBTU [Permit No. 075-0212]

iii. 0.294 TPY [Permit No. 075-0212]

*b. Monitoring Requirements*

Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from AP-42, fifth edition dated January 1995, and FIRE, version 5.0, dated August 1995. [Permit No. 075-0212]

*c. Record Keeping Requirements*

The Permittee shall make and keep records of emission rate calculations. [RCSA §22a-174-4(d)(1)]

#### **5. NO<sub>x</sub>**

*a. Limitation or Restriction*

i. 26.154 lb/hr [Permit No. 075-0212]

ii. 3.225 lb/MMBTU [Permit No. 075-0212]

iii. 3.269 TPY [Permit No. 075-0212]

*b. Monitoring Requirements*

i. Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from AP-42, fifth edition dated January 1995, and FIRE, version 5.0, dated August 1995. [Permit No. 075-0212]



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- ii. The engine shall not be operated for routine, scheduled testing or maintenance on any day for which the Commissioner has forecast that ozone levels will be “moderate to unhealthful,” “unhealthful,” or “very unhealthful.” [Permit No. 075-0212 and RCSA §22a-174-22(b)(5)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of emission rate calculations. [Permit No. 075-0212 and RCSA §22a-174-4(d)(1)]
- ii. The Permittee shall make and keep daily records of engine operating hours, identifying the operating hours of emergency and non-emergency use. [Permit No. 075-0212 and RCSA §22a-174-22(1)(I)(A)]
- iii. The Permittee shall make and keep records to determine whether the NO<sub>x</sub> emissions from such premises on any day from May 1 to September 30, inclusive, are in excess of 274 pounds. [Permit No. 075-0212 and RCSA §22a-174-22(1)(I)(B)]
- iv. The Permittee shall make and keep monthly and annual records to determine whether NO<sub>x</sub> emissions from such premises on any calendar year are in excess of 50 tons. [Permit No. 075-0212 and RCSA §22a-174-22(1)(I)(C)]
- v. The Permittee shall make and keep records of all tune ups, repairs, replacement of parts and other maintenance. [Permit No. 075-0212 and RCSA §22a-174-22(1)(I)(D)]
- vi. The Permittee shall make and keep copies of all documents submitted to the Commissioner. [Permit No. 075-0212 and RCSA §22a-174-22(1)(I)(E)]
- vii. The Permittee shall make and keep records of procedures for calculating NO<sub>x</sub> emission rates. [Permit No. 075-0212 and RCSA §22a-174-22(1)(I)(G)]

#### *d. Reporting Requirements*

The Permittee shall submit a report on NO<sub>x</sub> emissions from the emergency engine on a form acceptable to the commissioner on or before April 15 of each year. [Permit No. 075-0212 and RCSA §22a-174-22(1)(6)]

## **6. VOC**

#### *a. Limitation or Restriction*

- i. 3.408 lb/hr [Permit No. 075-0212]
- ii. 0.420 lb/MMBTU [Permit No. 075-0212]
- iii. 0.426 TPY [Permit No. 075-0212]

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*b. Monitoring Requirements*

Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from AP-42, fifth edition dated January 1995, and FIRE, version 5.0, dated August 1995. [Permit No. 075-0212]

*c. Record Keeping Requirements*

The Permittee shall make and keep records of emission rate calculations. [RCSA §22a-174-4(d)(1)]

#### **7. CO**

*a. Limitation or Restriction*

- i. 7.709 lb/hr [Permit No. 075-0212]
- ii. 0.951 lb/MMBTU [Permit No. 075-0212]
- iii. 0.964 TPY [Permit No. 075-0212]

*b. Monitoring Requirements*

Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from AP-42, fifth edition dated January 1995, and FIRE, version 5.0, dated August 1995. [Permit No. 075-0212]

*c. Record Keeping Requirements*

The Permittee shall make and keep records of emission rate calculations. [RCSA §22a-174-4(d)(1)]

#### **8. Sulfuric Acid**

*a. Limitation or Restriction*

- i. 0.0072 lb/hr [Permit No. 075-0212]
- ii. 0.0009 lb/MMBTU [Permit No. 075-0212]
- iii. 0.0009 TPY [Permit No. 075-0212]

*b. Monitoring Requirements*

Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from AP-42, fifth edition dated January 1995, and FIRE, version 5.0, dated August 1995. [Permit No. 075-0212]

*c. Record Keeping Requirements*

The Permittee shall make and keep records of emission rate calculations. [RCSA §22a-174-4(d)(1)]

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#### 9. Operation and Maintenance

##### a. Limitation or Restriction

- i. The Permittee shall change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR §63.6603(a), Table 2d, No. 4]
- ii. The Permittee shall inspect air cleaner every 1,000 hours of operation or annually, whichever comes first. [40 CFR §63.6603(a), Table 2d, No. 4]
- iii. The Permittee shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR §63.6603(a), Table 2d, No. 4]
- iv. The Permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6603(a), 40 CFR §63.6625(h)]
- v. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in 40 CFR 63, Subpart ZZZZ, Table 2d, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. [40 CFR 63, Subpart ZZZZ, Table 2d, Footnote 2]
- xiv. The Permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e), 40 CFR §63.6640(a), Table 6, No. 9]
- vii. The Permittee shall be in compliance with the applicable operating limitations in 40 CFR 63, Subpart ZZZZ at all times. [40 CFR §63.6605(a)]
- viii. At all times the Permittee shall 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 the Permittee to make any further efforts to reduce emissions if required levels 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. [40 CFR §63.6605(b)]
- ix. The Permittee shall operate the emergency stationary RICE according to the requirements in 40 CFR §63.6640(f)(1) or (2). Any operation other than emergency operation and maintenance and testing as described in 40 CFR §63.6640 (f)(1) or (2), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR §63.6640(f)(1) or (2), the engine will not be considered an emergency engine under 40 CFR 63, Subpart ZZZZ and will need to meet all requirements for non-emergency engines. [40 CFR §63.6640(f)]

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- x. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR§63.6640(f)(1)]
- xi. The Permittee may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [40 CFR§63.6640(f)(2)(i)]
- xii. The Permittee may operate the emergency engine 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 §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR§63.6640(f)(2)(ii)]
- xiii. The Permittee may operate the emergency engine for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [40 CFR 63.6640(f)(2)(iii)]

#### *b. Monitoring Requirements*

- i. The Permittee shall install a non-resettable hour meter if one is not already installed. [40 CFR §63.6625(f)]
- ii. The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in 40 CFR 63, Subpart ZZZZ, Table 2d. The oil analysis must be performed at the same frequency specified for changing the oil in 40 CFR 63, Subpart ZZZZ, Table 2d. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within two 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 two days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. [40 CFR §63.6625(i), 40 CFR 63, Subpart ZZZZ, Table 2d, Footnote No. 1]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of the parameters that are analyzed as part of the oil analysis program, the results of the analysis, and the oil changes for the engine. [40 CFR §63.6625(i)]
- ii. The Permittee shall make and keep the following records: [40 CFR §63.6655(a)(1) through (5)]

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1. A copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in 40 CFR §63.10(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 §63.10(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 §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- iii. The Permittee shall make and keep records to show continuous compliance with each applicable work or management practice required in 40 CFR 63, Subpart ZZZZ, Table 6. [40 CFR §63.6655(d)]
- iv. The Permittee shall make and keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the Permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the Permittee's own maintenance plan. [40 CFR §63.6655(e)]
- v. The Permittee shall make and keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency. If the engine is used for the purpose specified in 40 CFR §63.6640(f)(2)(ii) or (iii) , the Permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for this purpose. [40 CFR §63.6655(f)]

#### *d. Reporting Requirements*

- i. The Permittee shall report each instance in which they did not meet each applicable operating limitation in 40 CFR 63, Subpart ZZZZ, Table 2d. These instances are deviations from the operating limitations in 40 CFR 63, Subpart ZZZZ. These deviations must be reported according to the requirements in §63.6650. [40 CFR §63.6640(b)]
- ii. The Permittee shall report any failure to perform the engine's management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. [40 CFR 63, Subpart ZZZZ, Table 2d, Footnote 2]

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#### D. EU-016 (Caterpillar XQ350 Generator Set)

(RICE MACT Designation: Non-Emergency, Existing CI, 300<Bhp≤500, Constructed before 6/12/06) (Compliance Date: 9/30/13)

##### 1. Maximum No. 2 Fuel Oil Consumption

###### a. Limitation or Restriction

13,300 gal over a 12 month period [Permit No. 075-0343]

###### b. Monitoring Requirements

When more than one fuel supply tank is to service this source or when multiple sources are supplied by one fuel tank, the Permittee shall use a fuel metering device to continuously monitor fuel feed to this permitted source. [Permit No. 075-0343]

###### c. Record Keeping Requirements

Fuel consumption shall be based on any consecutive 12 month time period and shall be determined by adding (for each fuel) the current month's fuel usage to that of the previous 11 months. The Permittee shall make and keep these calculations monthly. [Permit No. 075-0343]

##### 2. Fuel Sulfur Content

###### a. Limitation or Restriction

i. 0.05% by weight, dry basis [Permit No. 075-0343]

ii. The Permittee shall use diesel fuel that meets the requirements in 40 CFR §80.510(b) for nonroad diesel fuel. [40 CFR §63.6604(a)]

###### b. Monitoring Requirements

Each oil fuel shipment for this equipment shall include a shipping receipt from the fuel supplier and a certification from the fuel supplier certifying the type of fuel in the shipment and the weight percent of sulfur in the fuel. The shipping receipt and/or certification shall include the name of the oil supplier, the sulfur content of the oil and the method used to determine the sulfur content of the oil. [Permit No. 075-0343]

###### c. Record Keeping Requirements

The Permittee shall make and keep records of each shipping receipt and certification. [Permit No. 075-0343]

##### 3. TSP/PM<sub>10</sub>

###### a. Limitation or Restriction

i. 0.460 lb/hr [Permit No. 075-0343]

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ii. 0.114 TPY [Permit No. 075-0343]

*b. Monitoring Requirements*

Demonstration of compliance with the emission limits shall be met by calculating the emission rates using Caterpillar manufacturer's emission factors. [Permit No. 075-0343]

*c. Record Keeping Requirements*

The Permittee shall make and keep records of emission rate calculations. [RCSA §22a-174-4(d)(1)]

#### 4. SO<sub>x</sub>

*a. Limitation or Restriction*

i. 0.190 lb/hr [Permit No. 075-0343]

ii. 0.048 TPY [Permit No. 075-0343]

*b. Monitoring Requirements*

Demonstration of compliance with the emission limits shall be met by calculating the emission rates using BAM Memo, Emission Factor for Sulfuric Acid formation, Fuel Burning Sources, November 27, 1987. [Permit No. 075-0343]

*c. Record Keeping Requirements*

The Permittee shall make and keep records of emission rate calculations. [RCSA §22a-174-4(d)(1)]

#### 5. NO<sub>x</sub>

*a. Limitation or Restriction*

i. 7.890 lb/hr [Permit No. 075-0343]

ii. 1.974 TPY [Permit No. 075-0343]

iii. 8 gm./bk. hp-hr [RCSA §22a-174-22(e)(1)]

*b. Monitoring Requirements*

i. Demonstration of compliance with the emission limits shall be met by calculating the emission rates using Caterpillar manufacturer's emission factors. [Permit No. 075-0343]

ii. The Permittee shall conduct NO<sub>x</sub> emission tests once every five years from the date of the previous test or five years from the date the previous test was due, whichever is earlier. [RCSA §22a-174-22(k)(1) and Permit No. 075-0343]

iii. The Permittee shall demonstrate compliance with NO<sub>x</sub> emission limitations using sampling and analytical procedures approved under 40 CFR 60, Appendix A, or under procedures in RCSA §22a-174-5(d). Sampling shall be conducted when the source is at normal operating temperature and is operating at or above 90% of maximum capacity. [RCSA §22a-174-22(k)(2)]

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#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records to determine whether the NO<sub>x</sub> emissions from such premises on any day from May 1 to September 30, inclusive, are in excess of 274 pounds. [RCSA §22a-174-22(l)(1)(B)]
- ii. The Permittee shall make and keep monthly and annual records to determine whether NO<sub>x</sub> emissions from such premises on any calendar year are in excess of 50 tons. [RCSA §22a-174-22(l)(1)(C)]
- iii. The Permittee shall make and keep records of all tune ups, repairs, replacement of parts and other maintenance. [RCSA §22a-174-22(l)(1)(D)]
- iv. The Permittee shall make and keep copies of all documents submitted to the Commissioner. [RCSA §22a-174-22(l)(1)(E)]
- v. The Permittee shall make and keep records of procedures for calculating NO<sub>x</sub> emission rates. [RCSA §22a-174-22(l)(1)(G)]
- vi. The Permittee shall make and keep records of the dates, times and places of all emission testing, the persons performing the measurements, the testing methods used, the operating conditions at the time of testing, and the results of such testing. [RCSA §22a-174-22(l)(1)(H)]
- vii. The Permittee shall make and keep records of emission rate calculations. [RCSA §22a-174-4(d)(1)]

#### *d. Reporting Requirements*

- i. The Permittee shall submit a written report of the stack test results to the Commissioner within 30 days of the completion of the test. [RCSA §22a-174-22(l)(2)]
- ii. The Permittee shall submit a report on NO<sub>x</sub> emissions from the generator set on a form acceptable to the commissioner on or before April 15 of each year. [RCSA §22a-174-22(l)(6)]

## **6. VOC**

#### *a. Limitation or Restriction*

- i. 1.140 lb/hr [Permit No. 075-0343]
- ii. 0.286 TPY [Permit No. 075-0343]

#### *b. Monitoring Requirements*

Demonstration of compliance with the emission limits shall be met by calculating the emission rates using Caterpillar manufacturer's emission factors. [Permit No. 075-0343]

#### *c. Record Keeping Requirements*

The Permittee shall make and keep records of emission rate calculations. [RCSA §22a-174-4(d)(1)]



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#### 7. CO

##### a. Limitation or Restriction

- i. 9.730 lb/hr [Permit No. 075-0343]
- ii. 2.431 TPY [Permit No. 075-0343]
- iii. The Permittee shall limit concentration of CO in the stationary RICE exhaust to 49 ppmvd @ 15 % O<sub>2</sub> or reduce CO emissions by 70 % or more. [40 CFR §63.6603(a), Table 2d, No. 2]
- iv. The Permittee may comply with the requirements under 40 CFR 63, Subpart ZZZZ by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR 60, Subpart IIII instead of the emission limitations and other requirements that would otherwise apply under 40 CFR 63, Subpart ZZZZ for an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in 40 CFR §89.112, Table 1. [40 CFR §63.6603(e)]
- vi. The Permittee shall be in compliance with the applicable emission limitations in 40 CFR 63, Subpart ZZZZ at all times. [40 CFR §63.6605(a)]

##### b. Monitoring Requirements

- i. Demonstration of compliance with the emission limits shall be met by calculating the emission rates using Caterpillar manufacturer's emission factors. [Permit No. 075-0343]
- ii. When complying with the outlet emission concentration limit, the Permittee shall measure the O<sub>2</sub> at the outlet of the control device using 40 CFR 60, Appendix A, Method 3 or 3A or 3B or ASTM Method D6522-00 within 180 days after the compliance date. Measurements to determine O<sub>2</sub> must be made at the same time as the measurements for CO concentration. [40 CFR §63.6612(a), Table 4, No.1, 40 CFR §63.6620(a)]
- iii. When complying with the percent reduction limit, the Permittee shall measure the O<sub>2</sub> at the inlet and outlet of the control device using 40 CFR 60, Appendix A, Method 3 or 3A or 3B or ASTM Method D6522-00 within 180 days after the compliance date. Measurements to determine O<sub>2</sub> must be made at the same time as the measurements for CO concentration. [40 CFR §63.6612(a), Table 4, No.1, 40 CFR §63.6620(a)]
- iv. When complying with the outlet emission concentration limit, the Permittee shall measure the CO at the outlet of the control device using ASTM D6522-00 or 40 CFR 60, Appendix A, Method 10 within 180 days after the compliance date. The CO concentration must be at 15% O<sub>2</sub>, dry basis. [40 CFR §63.6612(a), Table 4, No.1, 40 CFR §63.6620(a)]
- v. When complying with the percent reduction limit, the Permittee shall measure the CO at the inlet and outlet of the control device using ASTM D6522-00 or 40 CFR 60, Appendix A, Method 10 within 180 days after the compliance date. The CO concentration must be at 15% O<sub>2</sub>, dry basis. [40 CFR §63.6612(a), Table 4, No.1, 40 CFR §63.6620(a)]
- vi. The Permittee is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in 40 CFR §63.6612(b)(1) through (4). [40 CFR §63.6612(b)]

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- vii. The Permittee shall conduct each applicable performance test in 40 CFR 63, Subpart ZZZZ, Tables 3 and 4. [40 CFR §63.6620(a)]
- viii. Each performance test must be conducted according to the requirements specified in 40 CFR 63, Subpart ZZZZ, Table 4. The Permittee does not need to start up the engine solely to conduct the performance test if it is a non-operational stationary RICE that is subject to performance testing. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. [40 CFR §63.6620(b)]
- ix. The Permittee shall conduct three separate test runs for each performance test required in 40 CFR §63.6620, as specified in 40 CFR §63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in 40 CFR §63.6620. [40 CFR §63.6620(d)]
- x. The Permittee shall use Equation 1 of 40 CFR §63.6620 when determining compliance with the percent reduction requirement. [40 CFR §63.6620(e)(1)]
- xi. When complying with the outlet emission concentration limit, the Permittee shall normalize the carbon monoxide (CO) concentration at the outlet of the control device to a dry basis and to 15 %O<sub>2</sub>, or an equivalent percent carbon dioxide (CO<sub>2</sub>). If pollutant concentrations are to be corrected to 15 %O<sub>2</sub> and CO<sub>2</sub> concentration is measured in lieu of oxygen concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs 40 CFR §63.6620(e)(2)(i) through (iii). [40 CFR §63.6620(e)(2)]
- xii. When complying with the percent reduction limit, the Permittee shall normalize the carbon monoxide (CO) concentration at the inlet and outlet of the control device to a dry basis and to 15 %O<sub>2</sub>, or an equivalent percent carbon dioxide (CO<sub>2</sub>). If pollutant concentrations are to be corrected to 15 %O<sub>2</sub> and CO<sub>2</sub> concentration is measured in lieu of oxygen concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs 40 CFR §63.6620(e)(2)(i) through (iii). [40 CFR §63.6620(e)(2)]
- xiii. The Permittee shall demonstrate continuous compliance with each applicable emission limitation, operating limitation and other requirements in 40 CFR 63, Subpart ZZZZ, Table 2d. [40 CFR §63.6640(a)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of emission rate calculations. [RCSA §22a-174-4(d)(1)]
- ii. The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the Notification of Compliance Status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided. [40 CFR §63.6620(i)]
- iii. The Permittee shall make and keep a copy of each notification and report submitted to comply with

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40 CFR 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in 40 CFR §63.10(b)(2)(xiv). [40 CFR §63.6655(a)(1)]

- iv. The Permittee shall make and keep records of performance tests and performance evaluations as required in 40 CFR §63.10(b)(2)(viii). [40 CFR §63.6655(a)(3)]
- v. The Permittee shall make and keep records of CO emissions or percent reduction sufficient to demonstrate compliance with the limits of 40 CFR §63.6603(a). [RCSA §22a-174-33(j)(1)(K)(ii)]

#### *d. Reporting Requirements*

- i. The Permittee shall report each instance in which they did not meet each applicable emission limitation or operating limitation in 40 CFR 63, Subpart ZZZZ, Tables 1a, 1b, 2a, 2b, 2c, 2d and 6. These instances are deviations from the emission and operating limitations in 40 CFR 63, Subpart ZZZZ. These deviations must be reported according to the requirements in 40 CFR §63.6650. If the Permittee changes the catalyst, they must reestablish the values of the operating parameters measured during the initial performance test. When the Permittee reestablishes the values of the operating parameters, the Permittee must also conduct a performance test to demonstrate that they are meeting the required emission limitation applicable to the stationary RICE. [40 CFR §63.6640(b)]
- ii. The Permittee shall also report each instance in which they did not meet the applicable requirements in 40 CFR 63, Subpart ZZZZ, Table 8. [40 CFR §63.6640(e)]
- iii. The Permittee shall submit all of the applicable notifications in 40 CFR §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) by the dates specified. [40 CFR §63.6645(a)]
- iv. The Permittee shall 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 §63.7(b)(1). [40 CFR §63.6645(g)]
- v. The Permittee shall submit a semiannual compliance report and the report must contain the following: [40 CFR §63.6650(a), 40 CFR §63.6650(e), Table 7, No. 1]
  - 1. If there are no deviations from any applicable emission limitations or operating limitations, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in 40 CFR §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or
  - 2. If there was a deviation from any emission limitation or operating limitation during the reporting period, the information in 40 CFR §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in 40 CFR §63.8(c)(7), the information in 40 CFR §63.6650(e); or
  - 3. If a malfunction occurred during the reporting period, the information in 40 CFR §63.6650(c)(4).
- vi. For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 76, 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 §76.6(a)(3)(iii)(A), the Permittee shall submit the first and subsequent Compliance reports according to the dates the permitting authority has established. [40

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CFR §63.6650(b)(5)]

- vii. The Compliance report must contain the information in 40 CFR §63.6650(c)(1) through (6). [40 CFR §63.6650(c)]
- viii. For each deviation from an emission or operating limitation that occurs for a stationary RICE where the Permittee is not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in 40 CFR §63.6650(c)(1) through (4) and the information in paragraphs 40 CFR §63.6650(d)(1) and (2). [40 CFR §63.6650(d)]
- ix. Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 76 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR §70.6 (a)(3)(iii)(A) or 40 CFR §76.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR §70.6(a)(3)(iii)(A) or 40 CFR §76.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. [40 CFR §63.6650(f)]

#### 8. Sulfuric Acid

*a. Limitation or Restriction*

594  $\mu\text{g}/\text{m}^3$  [Permit No. 075-0343]

*b. Monitoring Requirements*

Demonstration of compliance with the emission limit shall be met by calculating the emission rates using emission factors from BAM Memo, Emission Factor for Sulfuric Acid formation, Fuel Burning Sources, November 27, 1987. [Permit No. 075-0343]

*c. Record Keeping Requirements*

The Permittee shall make and keep records of emission rate calculations. [RCSA §22a-174-4(d)(1)]

#### 9. Operation and Maintenance

*a. Limitation or Restriction*

- i. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations. [Permit No. 075-0343]
- ii. If the Permittee owns or operates an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, the Permittee shall comply with either 40 CFR §60.6625(g)(1) or 40 CFR §60.6625 (g)(2). The Permittee shall follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer

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requirements. [40 CFR §63.6625(g)]

- iii. The Permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6603(a), Table 2d, No.2 , 40 CFR §63.6625(h)]
- iv. At all times the Permittee shall 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 the Permittee to make any further efforts to reduce emissions if levels required by the standards of 40 CFR 63, Subpart ZZZZ 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. [40 CFR §63.6605(b)]

#### *b. Record Keeping Requirements*

- i. The Permittee shall make and keep records of the occurrence and duration of each malfunction of operation ( i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR §63.6655(a)(2)]
- ii. The Permittee shall make and keep records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR §63.6655(a)(4)]
- iii. The Permittee shall make and keep records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR §63.6655(a)(5)]
- iv. The Permittee shall make and keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the Permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan. [40 CFR §63.6655(e)]

#### **E. EU-017 (Wisconsin Natural Gas Fired Generator, Serial No. 45303 in Maintenance Department) (RICE MACT Designation: Emergency, Existing SI, ≤500 Bhp, Constructed before 6/12/06) (Compliance Date: 10/19/13)**

##### **1. Operation and Maintenance**

###### *a. Limitation or Restriction*

- i. The Permittee shall change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR 63.6603(a), 40 CFR 63, Subpart ZZZZ, Table 2d, No.5 and Table 2c, No. 6]
- ii. The Permittee shall inspect spark plugs every 1,000 hours of operation or annually, whichever comes first. [40 CFR 63.6603(a), 40 CFR 63, Subpart ZZZZ, Table 2d, No.5 and Table 2c, No. 6]
- iii. The Permittee shall inspect all hoses and belts every 500 hours of operation or annually, whichever

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comes first, and replace as necessary. [40 CFR 63.6603(a), 40 CFR 63, Subpart ZZZZ, Table 2d, No.5 and Table 2c, No. 6]

- iv. The Permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63.6603(a), 40 CFR 63, Subpart ZZZZ, Table 2d, No.5, Table 2c, No. 6 and 40 CFR §60.6625(h)]
- v. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in 40 CFR 63, Subpart ZZZZ, Table 2d, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. [40 CFR 63, Subpart ZZZZ, Table 2d, Footnote 2]
- vi. The Permittee shall be in compliance with the applicable emission limitations in 40 CFR 63, Subpart ZZZZ at all times. [40 CFR §63.6605(a)]
- vii. At all times the Permittee shall 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 the Permittee to make any further efforts to reduce emissions if levels required by the standards of 40 CFR 63, Subpart ZZZZ 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. [40 CFR §63.6605(b)]
- viii. The Permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]
- ix. The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in 40 CFR 63, Subpart ZZZZ, Tables 2c and 2d. The oil analysis must be performed at the same frequency specified for changing the oil in 40 CFR 63, Subpart ZZZZ, Table 2c or 2d. 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 Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee engine must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the Permittee must change the oil within 2 days or before commencing operation, whichever is later. [40 CFR §63.6625(j)]

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- x. The Permittee shall operate the emergency stationary RICE according to the requirements in 40 CFR §63.6640(f)(1) or (2). Any operation other than emergency operation and maintenance and testing as described in 40 CFR §63.6640 (f)(1) or (2), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR §63.6640(f)(1) or (2), the engine will not be considered an emergency engine under 40 CFR 63, Subpart ZZZZ and will need to meet all requirements for non-emergency engines. [40 CFR§63.6640(f)]
  - xi. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR§63.6640(f)(1)]
  - xii. The Permittee may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year [40 CFR§63.6640(f)(2)(i)]
  - xiii. The Permittee may operate the emergency engine 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 §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR§63.6640(f)(2)(ii)]
  - xiv. The Permittee may operate the emergency engine for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [40 CFR 63.6640(f)(2)(iii)]
- b. *Monitoring Requirements*
- i. The Permittee shall install a non-resettable hour meter if one is not already installed. [40 CFR §63.6625(f)]
  - ii. The Permittee shall demonstrate continuous compliance with each applicable emission limitation in 40 CFR 63, Subpart ZZZZ, Tables 1a, 1b, 2a, 2b, 2c, 2d and 6. [40 CFR §63.6640(a)]
- c. *Record Keeping Requirements*
- i. The Permittee shall make and keep records of the parameters that are analyzed as part of the oil analysis program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR §63.6625(j)]
  - ii. The Permittee shall make and keep a copy of each notification and report submitted to comply with 40 CFR 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in 40 CFR §63.10(b)(2)(xiv). [40 CFR §63.6655(a)(1)]
  - iii. The Permittee shall make and keep records of the occurrence and duration of each malfunction of operation ( i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR §63.6655(a)(2)]

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- iv. The Permittee shall make and keep records of performance tests and performance evaluations as required in 40 CFR §63.10(b)(2)(viii). [40 CFR §63.6655(a)(3)]
- v. The Permittee shall make and keep records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR §63.6655(a)(4)]
- vi. The Permittee shall make and keep records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR §63.6655(a)(5)]
- vii. The Permittee shall make and keep records to show continuous compliance with each applicable work or management practice required in 40 CFR 63, Subpart ZZZZ, Table 6. [40 CFR §63.6655(d)]
- viii. The Permittee shall make and keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the Permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to their own maintenance plan. [40 CFR §63.6655(e)]
- ix. The Permittee shall make and keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency. If the engine is used for the purposes specified in 40 CFR §63.6640(f)(2)(ii) or (iii), the Permittee must keep records of the notification of the emergency situation, and the date, start time and end time of the engine operation. [40 CFR §63.6655(f)]

#### *d. Reporting Requirements*

- i. The Permittee shall also report each instance in which they did not meet the applicable requirements in 40 CFR 63, Subpart ZZZZ, Table 8. [40 CFR §63.6640(e)]
- ii. The Permittee shall report any failure to perform the engine's management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. [40 CFR 63, Subpart ZZZZ, Table 2d, Footnote 2]

#### **F. EU-023 (UV Facility Emergency Generator)**

**(NSPS Designation: Construction/Ordered Date = 6/2011, Model Year of Engine = 2011,  
Displacement <30 L/cylinder, Maximum Rating = 1000 kW or 1474 Bhp)  
(Compliance Date: Upon Startup)**

##### **1. Maximum Hours of Operation**

###### *a. Limitation or Restriction*

- i. The Permittee shall not allow the operation of the emergency engine to exceed 300 hours during any 12 month rolling aggregate. [RCSA §22a-174-3b(e)(2)(C)]



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- ii. The Permittee shall operate the emergency stationary ICE according to the requirements in 40 CFR §60.4211(f)(2)(i) through (iii) . In order for the engine to be considered an emergency stationary ICE under 40 CFR 60, Subpart IIII, any operation other than emergency operation and maintenance and testing as described in 40 CFR §60.4211(f)(2)(i) through (iii), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR §60.4211(f)(2)(i) through (iii), the engine will not be considered an emergency engine under 40 CFR 60, Subpart IIII and will need to meet all requirements for non-emergency engines. [40 CFR §60.4211(f)]
- iii. The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in 40 CFR§60.4211(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. [40 CFR §60.4211(f)(2)]
- iv. 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 Permittee 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. [40 CFR §60.4211(f)(2)(i)]
- v. 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. [40 CFR §60.4211(f)(2)(ii)]
- vi. 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. [40 CFR §60.4211(f)(2)(iii)]

#### *b. Monitoring Requirements*

If the emergency stationary CI internal combustion engine does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter prior to startup of the engine. [40 CFR §60.4209(a)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of the information necessary for the commissioner to determine compliance with the requirements of RCSA §22a-174-3b(e)(2). Information sufficient to make such determinations may include the information specified in RCSA §22a-174-3b(e)(4). All records made to determine compliance with the requirements of RCSA §22a-174-3b(e)(3) shall be:
  - 1. Made available to the commissioner to inspect and copy upon request; and
  - 2. Maintained for five years from the date such record is created.
- ii. The Permittee of an emergency engine shall make and keep records of the hours of operation for each month and each 12 month rolling aggregate. [RCSA §22a-174-3b(e)(4)]

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- iii. If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the Permittee is not required to submit an initial notification. Starting with the model years in Table 5 of 40 CFR 60, Subpart IIII, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee shall make and keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR §60.4214(b)]

#### 2. Fuel Sulfur Content

##### a. Limitation or Restriction

- i. Any nongaseous fuel consumed by the emergency engine shall not exceed the sulfur content of motor vehicle diesel fuel where "motor vehicle diesel fuel" is defined in RCSA §22a-174-42. [RCSA §22a-174-3b(e)(2)(D)]
- ii. The Permittee shall purchase diesel fuel that meets the requirements of 40 CFR §80.510(b) for nonroad diesel fuel. [40 CFR §60.4207(b)]

##### b. Monitoring Requirements

Each oil fuel shipment for this equipment shall include a shipping receipt from the fuel supplier and a certification from the fuel supplier. The shipping receipt and/or certification shall include the name of the oil supplier, the sulfur content of the oil and the method used to determine the sulfur content of the oil. [RCSA §22a-174-4(d)(1)]

##### c. Record Keeping Requirements

- i. The Permittee shall maintain records of the information necessary for the commissioner to determine compliance with the requirements of RCSA §22a-174-3b(e)(2). Information sufficient to make such determinations may include the information specified in RCSA §22a-174-3b(e)(4). All records made to determine compliance with the requirements of RCSA §22a-174-3b(e)(3) shall be: [RCSA §22a-174-3b(e)(3)]
  - 1. Made available to the commissioner to inspect and copy upon request; and
  - 2. Maintained for five years from the date such record is created.

#### 3. NMHC + NO<sub>x</sub>

##### a. Limitation or Restriction

6.4 g/kW-hr [40 CFR §60.4205(b), 40 CFR §60.4202(a), 40 CFR §60.4202(a)(2), 40 CFR §89.112(a), Table 1]

##### b. Monitoring Requirements

- i. Exhaust emissions of oxides of nitrogen, carbon monoxide, hydrocarbon, and nonmethane hydrocarbon are measured using the procedures set forth in 40 CFR 89, Subpart E. [40 CFR §89.112(b)]

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- ii. The performance test must be conducted according to the in-use testing procedures in 40 CFR 1039, Subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder. [40 CFR §60.4212(a)]
- iii. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR §89.112 or 40 CFR §94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR §89.112 or 40 CFR §94.8, as applicable, determined from Equation 1 in 40 CFR §60.4212(c). Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR §89.112 or 40 CFR §94.8 may follow the testing procedures specified in 40 CFR §60.4213, as appropriate. [40 CFR §60.4212(c)]

#### c. *Record Keeping Requirements*

The Permittee shall make and keep records of emission rate measurements and NTE calculations. [RCSA §22a-174-4(d)(1)]

### 4. CO

#### a. *Limitation or Restriction*

1.5 g/kW-hr [40 CFR §60.4205(b), 40 CFR §60.4202(a), 40 CFR §60.4202(a)(2), 40 CFR §89.112(a), Table 1]

#### b. *Monitoring Requirements*

- i. Exhaust emissions of oxides of nitrogen, carbon monoxide, hydrocarbon, and nonmethane hydrocarbon are measured using the procedures set forth in 40 CFR 89, Subpart E. [40 CFR 89.112(b)]
- ii. The performance test must be conducted according to the in-use testing procedures in 40 CFR 1039, Subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder. [40 CFR §60.4212(a)]
- iii. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR §89.112 or 40 CFR §94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR §89.112 or 40 CFR §94.8, as applicable, determined from Equation 1 in 40 CFR §60.4212(c). Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR §89.112 or 40 CFR §94.8 may follow the testing procedures specified in 40 CFR §60.4213, as appropriate. [40 CFR §60.4212(c)]

#### c. *Record Keeping Requirements*

The Permittee shall make and keep records of emission rate measurements and NTE calculations. [RCSA §22a-174-4(d)(1)]

### 5. PM

#### a. *Limitation or Restriction*

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0.20 g/kW-hr [40 CFR §60.4205(b), 40 CFR §60.4202(a), 40 CFR §60.4202(a)(2), 40 CFR §89.112(a), Table 1]

#### *b. Monitoring Requirements*

- i. If the stationary CI internal combustion engine is equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the Permittee when the high backpressure limit of the engine is approached. [40 CFR §60.4209(b)]
- ii. Exhaust emission of particulate matter is measured using the California Regulations for New 1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines. This procedure is incorporated by reference. See 40 CFR §89.6. [40 CFR §89.112(c)]
- iii. The diesel particulate filter shall be installed with a backpressure monitor that notifies the Permittee when the high backpressure limit of the engine is approached. [40 CFR §60.4209(b)]

#### *c. Record Keeping Requirements*

- i. If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the Permittee shall make and keep records of any corrective action taken after the backpressure monitor has notified the Permittee that the high backpressure limit of the engine is approached. [40 CFR §60.4214(c)]
- ii. The Permittee shall make and keep records of emission rate measurements. [RCSA §22a-174-4(d)(1)]

## **6. Opacity**

#### *a. Limitation or Restriction*

- i. Exhaust opacity from compression-ignition nonroad engines for which 40 CFR 89, Subpart B is applicable must not exceed: [40 CFR §60.4205(b), 40 CFR §60.4202(a), 40 CFR §60.4202(a)(2), 40 CFR §89.113(a)]
- ii. 20 percent during the acceleration mode
- iii. 15 percent during the lugging mode; and
- iv. 50 percent during the peaks in either the acceleration or lugging modes.

#### *b. Monitoring Requirements*

Opacity levels are to be measured and calculated as set forth in 40 CFR 86, Subpart I. Notwithstanding the provisions of 40 CFR 86, Subpart I, two-cylinder nonroad engines may be tested using an exhaust muffler that is representative of exhaust mufflers used with the engines in use. [40 CFR §89.113(b)]

#### *c. Record Keeping Requirements*

The Permittee shall make and keep records of opacity measurements and corresponding operating mode. [RCSA §22a-174-4(d)(1)]

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#### 7. Operation and Maintenance

##### a. Limitation or Restriction

- i. The Permittee shall: [RCSA §22a-174-3b (e)(1) and 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 applicable requirements of 40 CFR parts 89, 94 and/or 1068.
- ii. The Permittee must purchase an engine certified to the emission standards in 40 CFR §60.4204(b), or 40 CFR §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications. [40 CFR §60.4211(c)]

##### b. Monitoring Requirements

- i. The Permittee shall operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR §§60.4204 and 60.4205 over the entire life of the engine. [40 CFR §60.4206]
- ii. If the Permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or the Permittee changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: [40 CFR §60.4211(g)]
- iii. 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. In addition, the Permittee 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 the Permittee changes emission-related settings in a way that is not permitted by the manufacturer. The Permittee 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. [40 CFR §60.4211(g)(3)]

##### c. Record Keeping Requirements

The Permittee shall make and keep manufacturer's emission-related written instructions. [RCSA §22a-174-4(d)(1)]

### Section III: Applicable Requirements and Compliance Demonstration

#### G. PREMISES-WIDE GENERAL REQUIREMENTS

1. **Annual Emission Statements:** The Permittee shall submit annual emission statements requested by the commissioner as set forth in RCSA §22a-174-4(d)(1).
2. **Emergency Episode Procedures:** The Permittee shall comply with the procedures for emergency episodes as set forth in RCSA §22a-174-6.
3. **Reporting of Malfunctioning Control Equipment:** The Permittee shall comply with the reporting requirements of malfunctioning control equipment as set forth in RCSA §22a-174-7.
4. **Prohibition of Air Pollution:** The Permittee shall comply with the requirement to prevent air pollution as set forth in RCSA §22a-174-9.
5. **Public Availability of Information:** The public availability of information shall apply, as set forth in RCSA §22a-174-10.
6. **Prohibition Against Concealment/Circumvention:** The Permittee shall comply with the prohibition against concealment or circumvention as set forth in RCSA §22a-174-11.
7. **Violations and Enforcement:** The Permittee shall not violate or cause the violation of any applicable regulation as set forth in RCSA §22a-174-12.
8. **Variances:** The Permittee may apply to the commissioner for a variance from one or more of the provisions of these regulations as set forth in RCSA §22a-174-13.
9. **No Defense to Nuisance Claim:** The Permittee shall comply with the regulations as set forth in RCSA §22a-174-14.
10. **Severability:** The Permittee shall comply with the severability requirements as set forth in RCSA §22a-174-15.
11. **Responsibility to Comply:** The Permittee shall be responsible to comply with the applicable regulations as set forth in RCSA §22a-174-16.
12. **Particulate Emissions:** The Permittee shall comply with the standards for control of particulate matter and visible emissions as set forth in RCSA §22a-174-18. (Section 18 approved by EPA on 9-23-1982, current Regulation submitted to EPA on 12-1-2004.)
13. **Sulfur Compound Emissions:** The Permittee shall comply with the requirements for control of sulfur compound emissions as set forth in RCSA §22a-174-19.
14. **Organic Compound Emissions:** The Permittee shall comply with the requirements for control of organic compound emissions as set forth in RCSA §22a-174-20.
15. **Nitrogen Oxide Emissions:** The Permittee shall comply with the requirements for control of nitrogen oxide emissions as set forth in RCSA §22a-174-22.
16. **Ambient Air Quality:** The Permittee shall not cause or contribute to a violation of an ambient air quality standard as set forth in RCSA §22a-174-24(b).

### **Section III: Applicable Requirements and Compliance Demonstration**

- 17. Emission Fees:** The Permittee shall pay an emission fee as set forth in RCSA §22a-174-26(d).
- 18. Mercury, metals and hydrocarbons:** The Permittee shall conduct a stack test for the presence of mercury, metals and hydrocarbons in the air emissions of each incinerator. [CGS 22a-191a(a) and 22a-191a(b)]
- 19. Sludge Incinerator Operation:** Only two of the three Nichols-Herreshoff Incinerators may incinerate sewage sludge at the same time. [Permit Nos. 075-0006, 075-0007 and 075-0008]
- 20. Maximum Annual Sludge Charging Rate:** The Maximum Annual Sludge Charging Rate for the facility is 42,120 DT/yr. [Permit Nos. 075-0006, 075-0007 and 075-0008]
  - i. The Permittee shall make and keep records of monthly and rolling 12 month total of the premises maximum annual sludge charging rate (DT/yr). [Permit Nos. 075-0006, 075-0007 and 075-0008]

**Section IV: Compliance Schedule**

**THERE IS NO COMPLIANCE SCHEDULE**

<b>TABLE IV: COMPLIANCE SCHEDULE</b>				
<b>Emissions units</b>	<b>Applicable regulations</b>	<b>Steps required for achieving compliance (Milestones)</b>	<b>Date by which each step is to be completed</b>	<b>Dates for monitoring, record keeping, and reporting</b>



## Section V: State Enforceable Terms and Conditions

Only the Commissioner of the Department of Energy and Environmental Protection has the authority to enforce the terms, conditions and limitations contained in this section.

### State Enforceable Terms and Conditions

- A.** This Title V permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the emissions units in compliance with all applicable requirements of any other Bureau of the Department of Energy and Environmental Protection or any federal, local or other state agency. Nothing in this Title V permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- B.** Nothing in this Title V permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, investigate air pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.
- C.** Additional Emissions Units
- 1.** The Permittee shall make and submit a written record, at the commissioner's request, within 30 days of receipt of notice from the commissioner, or by such other date specified by the commissioner, of each additional emissions unit or group of similar or identical emissions units at the premises.
- 2.** Such record of additional emissions units shall include each emissions unit, or group of emissions units, at the premises which is not listed in Section II.A of this Title V permit, unless the emissions unit, or group of emissions units, is:
- a. an insignificant emissions unit as defined in RCSA §22a-174-33; or
  - b. an emissions unit or activity listed in *White Paper for Streamlined Development of Part 70 Permit Applications, Attachment A* (EPA guidance memorandum dated July 10, 1995).
- 3.** For each emissions unit, or group of emissions units, on such record, the record shall include, as available:
- a. Description, including make and model;
  - b. Year of construction/installation or if a group, range of years of construction/installation;
  - c. Maximum throughput or capacity; and
  - d. Fuel type, if applicable.
- D.** Odors: The Permittee shall not cause or permit the emission of any substance or combination of substances which creates or contributes to an odor that constitutes a nuisance beyond the property boundary of the premises as set forth in RCSA §22a-174-23.

## **Section V: State Enforceable Terms and Conditions**

- E.** Noise: The Permittee shall operate in compliance with the regulations for the control of noise as set forth in RCSA §§22a-69-1 through 22a-69-7.4, inclusive.
- F.** Hazardous Air Pollutants (HAPs): The Permittee shall operate in compliance with the regulations for the control of HAPs as set forth in RCSA §22a-174-29.
- G.** Open Burning: The Permittee is prohibited from conducting open burning, except as may be allowed by CGS §22a-174(f).
- H.** Fuel Sulfur Content: The Permittee shall not use No.2 heating oil that exceeds three-tenths of one percent sulfur by weight as set forth in CGS §16a-21a.

## Section VI: Title V Requirements

The Administrator of the United States Environmental Protection Agency and the Commissioner of the Department of Energy and Environmental Protection have the authority to enforce the terms and conditions contained in these sections.

### A. SUBMITTALS TO THE COMMISSIONER & ADMINISTRATOR

The date of submission to the commissioner of any document required by this Title V permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this Title V permit, including, but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this Title V permit, the word "day" means calendar day. Any document or action which is required by this Title V permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.

Any document required to be submitted to the commissioner under this Title V permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of the Director; Engineering & Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

Any submittal to the Administrator of the Environmental Protection Agency shall be in a computer-readable format and addressed to: Director, Air Compliance Program; Attn: Air Compliance Clerk; Office of Environmental Stewardship; EPA-New England, Region 1; 5 Post Office Square, Suite 100; Boston, Massachusetts 02109-3912.

### B. CERTIFICATIONS [RCSA §22a-174-33(b)]

In accordance with RCSA §22a-174-33(b), any report or other document required by this Title V permit and any other information submitted to the commissioner or Administrator shall be signed by an individual described in RCSA §22a-174-2a(a), or by a duly authorized representative of such individual. Any individual signing any document pursuant to RCSA §22a-174-33(b) shall examine and be familiar with the information submitted in the document and all attachments thereto, and shall make inquiry of those individuals responsible for obtaining the information to determine that the information is true, accurate, and complete, and shall also sign the following certification as provided in RCSA §22a-174-2a(a)(4):

“I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under Section 22a-175 of the Connecticut General Statutes, under Section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute.”

### C. SIGNATORY RESPONSIBILITY [RCSA §22a-174-2a(a)]

For purposes of signing any Title V-related application, document, report or certification required by RCSA §22a-174-33, any corporation's duly authorized representative may be either a named individual or any individual occupying a named position. Such named individual or individual occupying a named position is a duly authorized representative if such individual is responsible for the overall operation of one or more manufacturing, production or operating facilities subject to RCSA §22a-174-33 and either:

1. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding 25 million dollars in second quarter 1980 dollars; or
2. The delegation of authority to the duly authorized representative has been given in writing by an officer of the corporation in accordance with corporate procedures and the following:

## Section VI: Title V Requirements

- i. Such written authorization specifically authorizes a named individual, or a named position, having responsibility for the overall operation of the Title V premises or activity,
- ii. Such written authorization is submitted to the commissioner and has been approved by the commissioner in advance of such delegation. Such approval does not constitute approval of corporate procedures, and
- iii. If a duly authorized representative is a named individual in an authorization submitted under subclause ii. of this subparagraph and a different individual is assigned or has assumed the responsibilities of the duly authorized representative, or, if a duly authorized representative is a named position in an authorization submitted under subclause ii. of this subparagraph and a different named position is assigned or has assumed the duties of the duly authorized representative, a new written authorization shall be submitted to the commissioner prior to or together with the submission of any application, document, report or certification signed by such representative.

### **D. ADDITIONAL INFORMATION** [RCSA §22a-174-33(j)(1)(X), RCSA §22a-174-33(h)(2)]

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier, including information to determine whether cause exists for modifying, revoking, reopening, reissuing, or suspending this Title V permit or to determine compliance with this Title V permit.

In addition, the Permittee shall submit information to address any requirements that become applicable to the subject source and shall submit correct, complete, and sufficient information within 15 days of the applicant's becoming aware of any incorrect, incomplete, or insufficient submittal, during the pendency of the application, or any time thereafter, with an explanation for such deficiency and a certification pursuant to RCSA Section 22a-174-2a(a)(5).

### **E. MONITORING REPORTS** [RCSA §22a-174-33(o)(1)]

A Permittee, required to perform monitoring pursuant this Title V permit, shall submit to the commissioner, on forms prescribed by the commissioner, written monitoring reports on March 1 and September 1 of each year or on a more frequent schedule if specified in such permit. Such monitoring reports shall include the date and description of each deviation from a permit requirement including, but not limited to:

1. Each deviation caused by upset or control equipment deficiencies; and
2. Each deviation of a permit requirement that has been monitored by the monitoring systems required under this permit, which has occurred since the date of the last monitoring report; and
3. Each deviation caused by a failure of the monitoring system to provide reliable data.

### **F. PREMISES RECORDS** [RCSA §22a-174-33(o)(2)]

Unless otherwise required by this Title V permit, the Permittee shall make and keep records of all required monitoring data and supporting information for at least five years from the date such data and information were obtained. The Permittee shall make such records available for inspection at the site of the subject source, and shall submit such records to the commissioner upon request. The following information, in addition to required monitoring data, shall be recorded for each permitted source:

1. The type of monitoring or records used to obtain such data, including record keeping;
2. The date, place, and time of sampling or measurement;
3. The name of the individual who performed the sampling or the measurement and the name of such individual's employer;
4. The date(s) on which analyses of such samples or measurements were performed;
5. The name and address of the entity that performed the analyses;
6. The analytical techniques or methods used for such analyses;

## Section VI: Title V Requirements

7. The results of such analyses;
8. The operating conditions at the subject source at the time of such sampling or measurement; and
9. All calibration and maintenance records relating to the instrumentation used in such sampling or measurements, all original strip-chart recordings or computer printouts generated by continuous monitoring instrumentation, and copies of all reports required by the subject permit.

### **G. PROGRESS REPORTS** [RCSA §22a-174-33(q)(1)]

The Permittee shall, on March 1 and September 1 of each year, or on a more frequent schedule if specified in this Title V permit, submit to the commissioner a progress report on forms prescribed by the commissioner, and certified in accordance with RCSA §22a-174-2a(a)(5). Such report shall describe the Permittee's progress in achieving compliance under the compliance plan schedule contained in this Title V permit. Such progress report shall:

1. Identify those obligations under the compliance plan schedule in this Title V permit which the Permittee has met, and the dates on which they were met; and
2. Identify those obligations under the compliance plan schedule in this Title V permit which the Permittee has not timely met, explain why they were not timely met, describe all measures taken or to be taken to meet them and identify the date by which the Permittee expects to meet them.

Any progress report prepared and submitted pursuant to RCSA §22a-174-33(q)(1) shall be simultaneously submitted by the Permittee to the Administrator.

### **H. COMPLIANCE CERTIFICATIONS** [RCSA §22a-174-33(q)(2)]

The Permittee shall, on March 1 of each year, or on a more frequent schedule if specified in this Title V permit, submit to the commissioner a written compliance certification certified in accordance with RCSA §22a-174-2a(a)(5) and which includes the information identified in 40 CFR 70.6(c)(5)(iii)(A) to (C), inclusive. Any compliance certification prepared and submitted pursuant to RCSA §22a-174-33(q)(2) shall be simultaneously submitted by the Permittee to the Administrator.

### **I. PERMIT DEVIATION NOTIFICATIONS** [RCSA §22a-174-33(p)]

Notwithstanding Subsection D of Section VII of this Title V permit, the Permittee shall notify the commissioner in writing, on forms prescribed by the commissioner, of any deviation from an emissions limitation, and shall identify the cause or likely cause of such deviation, all corrective actions and preventive measures taken with respect thereto, and the dates of such actions and measures as follows:

1. For any hazardous air pollutant, no later than 24 hours after such deviation commenced; and
2. For any other regulated air pollutant, no later than ten days after such deviation commenced.

### **J. PERMIT RENEWAL** [RCSA §22a-174-33(j)(1)(B)]

All of the terms and conditions of this Title V permit shall remain in effect until the renewal permit is issued or denied provided that a timely renewal application is filed in accordance with RCSA §§22a-174-33(g), -33(h), and -33(i).

### **K. OPERATE IN COMPLIANCE** [RCSA §22a-174-33(j)(1)(C)]

The Permittee shall operate the source in compliance with the terms of all applicable regulations, the terms of this Title V permit, and any other applicable provisions of law. In addition, any noncompliance constitutes a violation of the Clean Air Act and Chapter 446c of the Connecticut General Statutes and is grounds for federal and/or state enforcement action, permit termination, revocation and reissuance, or modification, and denial of a permit renewal application.

## Section VI: Title V Requirements

### **L. COMPLIANCE WITH PERMIT** [RCSA §22a-174-33(j)(1)(G)]

This Title V permit shall not be deemed to:

1. Preclude the creation or use of emission reduction credits or allowances or the trading thereof in accordance with RCSA §§22a-174-33(j)(1)(I) and 22a-174-33(j)(1)(P), provided that the commissioner's prior written approval of the creation, use, or trading is obtained;
2. Authorize emissions of an air pollutant so as to exceed levels prohibited pursuant to 40 CFR Part 72;
3. Authorize the use of allowances pursuant to 40 CFR Parts 72 through 78, inclusive, as a defense to noncompliance with any other applicable requirement; or
4. Impose limits on emissions from items or activities specified in RCSA §§22a-174-33(g)(3)(A) and (B) unless imposition of such limits is required by an applicable requirement.

### **M. INSPECTION TO DETERMINE COMPLIANCE** [RCSA §22a-174-33(j)(1)(M)]

The commissioner may, for the purpose of determining compliance with this Title V permit and other applicable requirements, enter the premises at reasonable times to inspect any facilities, equipment, practices, or operations regulated or required under such permit; to sample or otherwise monitor substances or parameters; and to review and copy relevant records lawfully required to be maintained at such premises in accordance with this Title V permit. It shall be grounds for permit revocation should entry, inspection, sampling, or monitoring be denied or effectively denied, or if access to and the copying of relevant records is denied or effectively denied.

### **N. PERMIT AVAILABILITY**

The Permittee shall have available at the facility at all times a copy of this Title V permit.

### **O. SEVERABILITY CLAUSE** [RCSA §22a-174-33(j)(1)(R)]

The provisions of this Title V permit are severable. If any provision of this Title V permit or the application of any provision of this Title V permit to any circumstance is held invalid, the remainder of this Title V permit and the application of such provision to other circumstances shall not be affected.

### **P. NEED TO HALT OR REDUCE ACTIVITY** [RCSA §22a-174-33(j)(1)(T)]

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Title V permit.

### **Q. PERMIT REQUIREMENTS** [RCSA §22a-174-33(j)(1)(V)]

The filing of an application or of a notification of planned changes or anticipated noncompliance does not stay the Permittee's obligation to comply with this Title V permit.

### **R. PROPERTY RIGHTS** [RCSA §22a-174-33(j)(1)(W)]

This Title V permit does not convey any property rights or any exclusive privileges. This Title V permit is subject to, and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby, including CGS §4-181a(b) and RCSA §22a-3a-5(b). This Title V permit shall neither create nor affect any rights of persons who are not parties to this Title V permit.

### **S. ALTERNATIVE OPERATING SCENARIO RECORDS** [RCSA §22a-174-33(o)(3)]

The Permittee shall, contemporaneously with making a change authorized by this Title V permit from one alternative operating scenario to another, maintain a record at the premises indicating when changes are made from one operating scenario to another and shall maintain a record of the current alternative operating scenario.

## Section VI: Title V Requirements

### **T. OPERATIONAL FLEXIBILITY AND OFF-PERMIT CHANGES** [RCSA §22a-174-33(r)(2)]

The Permittee may engage in any action allowed by the Administrator in accordance with 40 CFR 70.4(b)(12)(i) to (iii)(B) inclusive, and 40 CFR 70.4(b)(14)(i) to (iv), inclusive without a Title V non-minor permit modification, minor permit modification or revision and without requesting a Title V non-minor permit modification, minor permit modification or revision provided such action does not:

1. Constitute a modification under 40 CFR Part 60, 61 or 63,
2. Exceed emissions allowable under the subject permit,
3. Constitute an action which would subject the Permittee to any standard or other requirement pursuant to 40 CFR Parts 72 to 78, inclusive, or
4. Constitute a non-minor permit modification pursuant to RCSA §22a-174-2a(d)(4).

At least seven days before initiating an action specified in RCSA §22a-174-33(r)(2)(A), the Permittee shall notify the Administrator and the commissioner in writing of such intended action.

### **U. INFORMATION FOR NOTIFICATION** [RCSA §22a-174-33(r)(2)(A)]

Written notification required under RCSA §22a-174-33(r)(2)(A) shall include a description of each change to be made, the date on which such change will occur, any change in emissions that may occur as a result of such change, any Title V permit terms and conditions that may be affected by such change, and any applicable requirement that would apply as a result of such change. The Permittee shall thereafter maintain a copy of such notice with the Title V permit. The commissioner and the Permittee shall each attach a copy of such notice to their copy of the Title V permit.

### **V. TRANSFERS** [RCSA §22a-174-2a(g)]

No person other than the Permittee shall act or refrain from acting under the authority of this Title V permit unless such permit has been transferred to another person in accordance with RCSA §22a-174-2a(g).

The proposed transferor and transferee of a permit shall submit to the commissioner a request for a permit transfer on a form provided by the commissioner. A request for a permit transfer shall be accompanied by any fees required by any applicable provision of the general statutes or regulations adopted thereunder. The commissioner may also require the proposed transferee to submit with any such request, the information identified in CGS §22a-6m.

### **W. REVOCATION** [RCSA §22a-174-2a(h)]

The commissioner may revoke this Title V permit on his own initiative or on the request of the Permittee or any other person, in accordance with CGS §4-182(c), RCSA §22a-3a-5(d), and any other applicable law. Any such request shall be in writing and contain facts and reasons supporting the request. The Permittee requesting revocation of this Title V permit shall state the requested date of revocation and provide evidence satisfactory to the commissioner that the subject source is no longer a Title V source.

Pursuant to the Clean Air Act, the Administrator has the power to revoke this Title V permit. Pursuant to the Clean Air Act, the Administrator also has the power to reissue this Title V permit if the Administrator has determined that the commissioner failed to act in a timely manner on a permit renewal application.

This Title V permit may be modified, revoked, reopened, reissued, or suspended by the commissioner, or the Administrator in accordance with RCSA §22a-174-33(r), CGS §22a-174c, or RCSA §22a-3a-5(d).

## **Section VI: Title V Requirements**

### **X. REOPENING FOR CAUSE [RCSA §22a-174-33(s)]**

This Title V permit may be reopened by the commissioner, or the Administrator in accordance with RCSA §22a-174-33(s).

### **Y. CREDIBLE EVIDENCE**

Notwithstanding any other provision of this Title V permit, for the purpose of determining compliance or establishing whether a Permittee has violated or is in violation of any permit condition, nothing in this Title V permit shall preclude the use, including the exclusive use, of any credible evidence or information.



## **Print for Compliance Certification or Enforcement**

Print for Compliance Certification

Print for Enforcement