

**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>	117-0272-TV
<b>Client/Sequence/Town/Premises Numbers</b>	205/1/117/48 and 50
<b>Date Issued</b>	
<b>Expiration Date</b>	

**Corporation:**

*Yale University, Central / Science Campus*

**Premises Location:**

*Central Power Plant, 120 Tower Parkway, New Haven, Connecticut 06520*

**Name of Responsible Official and Title:**

*Jack Michael Bellamy, Vice President for Facilities & Campus Development*

All the following attached pages, 2 through 66, are hereby incorporated by reference into this Title V permit.

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Katherine S. Dykes  
Commissioner

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Date

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**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

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<i>Abbreviation/Acronym</i>	<i>Description</i>
AP-42	EPA's Compilation of Air Pollutant Emission Factors
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CGS	Connecticut General Statutes
CO	Carbon Monoxide
CO2	Carbon Dioxide
CO <sub>2e</sub>	Carbon Dioxide Equivalent
COMS	Continuous Opacity Monitor System
CPMS	Continuous Parameter Monitor System
CPP	Central Power Plant
DEEP	Department of Energy and Environmental Protection
EU	Emissions Unit
EPA	Environmental Protection Agency
°F	Degrees Fahrenheit
ft <sup>3</sup>	Cubic Feet
gal	Gallon
GEU	Grouped Emissions Unit
GHG (as CO <sub>2e</sub> )	Greenhouse Gas Expressed as Carbon Dioxide Equivalent
HAP	Hazardous Air Pollutant
HP	Horsepower
hr	Hour
HRSG	Heat Recovery Steam Generator
ICE	Internal Combustion Engine
J	Joule
kW	Kilowatt
lb	Pound
m <sup>3</sup>	Cubic Meters
MMBtu	Million British Thermal Units
MMcf	Million Cubic Feet
MMft <sup>3</sup>	Million Cubic Feet
MMgal	Million Gallons
MW	Megawatt
ng	Nanograms
NO <sub>2</sub>	Nitrogen Dioxide
NOx	Nitrogen Oxides
NSR	New Source Review
O <sub>2</sub>	Oxygen
Pb	Lead
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter, less than 10 microns
PM <sub>2.5</sub>	Particulate Matter, less than 2.5 microns
ppmvd	Parts per million, dry volumetric basis
RCSA	Regulations of Connecticut State Agencies
RICE	Reciprocating Internal Combustion Engine
SCR	Selective Catalytic Reduction
SI	Spark Ignition
SIC	Source Identification Code
SO <sub>2</sub>	Sulfur Dioxide
tpy	Tons per Year
TSP	Total Suspended Particulates
UHC	Unburned Hydrocarbon
ULSD	Ultra Low Sulfur Diesel
VOC	Volatile Organic Compound

**A. PREMISES INFORMATION**

Nature of Business: University – School of Higher Education  
Primary SIC: 8221

Facility Mailing Address: 135 College Street, 1st Floor, New Haven, CT 06510  
Telephone Number: (203) 737-4338

**B. PREMISES DESCRIPTION**

The Yale University Central/Science Campus located in New Haven, CT consists of a large number of buildings used for higher education, research and development laboratories, student housing, and administrative offices. Many of these buildings are interconnected and heated and cooled by the Central Power Plant, however, some of the buildings have their own source of heat and hot water, primarily small natural gas furnaces and water heaters.

Yale currently holds eight individual New Source Review (NSR) permits for emission units located at the Central/Science Campus. The remaining units either operate in accordance with RCSA §§22a-174-3b or -3c, federal requirements, or are not subject to permitting requirements.

In addition to sources that have applicable requirements, this premises contains many small sources that have no specific applicable requirements. Such sources are often replaced, removed or added to the premises.

Yale University, Central/Science Campus exceeds the major source threshold for the following pollutants: NO<sub>x</sub>, VOC, CO and GHG.

Yale University, Central/Science Campus is a Title V source located in a severe ozone non-attainment area defined in RCSA §22a-174-1(106).

## Section II: Emissions Units Information

### A. EMISSIONS UNITS DESCRIPTION

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

**TABLE II.A: EMISSIONS UNIT DESCRIPTION**

Emissions Units	Grouped Emissions Units	Emissions Unit Description	Size Rating/Design Capacity	Control Unit Description	Monitoring Unit Description	Permit (P) or Regulation
EU-1		Nebraska Boiler No. 4, Model No. NS-F-89 (Central Power Plant) Construction date: 1996	118 MMBtu/hr	Low NOx burner w/Flue gas recirculation	CEMS for NOx, and Oxygen	P-117-0210 40 CFR Part 60 Subpart Db 40 CFR Part 63 Subpart JJJJJ RCSA §22a-174-22e
EU-2	GEU-11	Nebraska Boiler No. 5, Model No. NOS-3/S-75 (Central Power Plant) Construction date: 2011	121.4 MMBtu/hr	Low NOx burner w/Flue gas recirculation	CEMS for NOx and Oxygen	P-117-0371 40 CFR Part 60 Subpart Db 40 CFR Part 63 Subpart JJJJJ RCSA §22a-174-22e
EU-3		Nebraska Boiler No. 6, Model No. NOS-3/S-75 (Central Power Plant) Construction date: 2011	121.4 MMBtu/hr	Low NOx burner w/Flue gas recirculation	CEMS for NOx and Oxygen	P-117-0372 40 CFR Part 60 Subpart Db 40 CFR Part 63 Subpart JJJJJ RCSA §22a-174-22e
EU-7	GEU-6	Mitsubishi Diesel Generator No. 1 Model No. S16R-PTA (Central Power Plant) Construction date: 1997	1500 kW	SCR for NOx Oxidation Catalyst for CO	CEMS for NOx and Oxygen	P-117-0207 40 CFR Part 63 Subpart ZZZZ RCSA §22a-174-22e
EU-8		Mitsubishi Diesel Generator No. 2 Model No. S16R-PTA (Central Power Plant) Construction date: 1997	1500 kW	SCR for NOx Oxidation Catalyst for CO	CEMS for NOx and Oxygen	P-117-0208 40 CFR Part 63 Subpart ZZZZ RCSA §22a-174-22e
EU-9		Mitsubishi Diesel Generator No. 3 Model No. S16R-PTA (Central Power Plant) Construction date: 1997	1500 kW	SCR for NOx Oxidation Catalyst for CO	CEMS for NOx and Oxygen	P-117-0209 40 CFR Part 63 Subpart ZZZZ RCSA §22a-174-22e
EU-11	GEU-14	Onan Emergency Diesel Generator, Model No. NTA855A-G2 (17 Hillhouse Ave) Construction date: 2002	300 kW	None	None	RCSA §22a-174-3b(e) RCSA §22a-174-22e
EU-21		Cummins Diesel Emergency Generator, Model No. NTATA855G2 (Police Station) Construction date: 2005	300 kW	None	None	RCSA §22a-174-3b(e) RCSA §22a-174-22e

## Section II: Emissions Units Information

TABLE II.A: EMISSIONS UNIT DESCRIPTION, continued

Emissions Units	Grouped Emissions Units	Emissions Unit Description	Size Rating/Design Capacity	Control Unit Description	Monitoring Unit Description	Permit, Order, Registration Number, or Federal Standard
EU-42	GEU-2	Cleaver Brooks Boiler Model No. CB700-200 (Divinity School) Construction date: 1991	8.369 MMBtu/hr	None	None	RCSA §22a-174-22e
EU-43		Cleaver Brooks Boiler Model No. FLX (Divinity School) Construction date: 2002	9.0 MMBtu/hr	None	None	RCSA §22a-174-22e
EU-197	GEU-8	Caterpillar Diesel Emergency Generator, Model No. 3516C (Central Power Plant) Construction date: 2012	2000 kW	None	None	RCSA §22a-174-3b(e) 40 CFR Part 60 Subpart IIII RCSA §22a-174-22e
EU-201		Cummins Emergency Generator Model No. QSX15-G9 (55 Lock Street) Construction date: 2010	500 kW	None	None	RCSA §22a-174-3b(e) 40 CFR Part 60 Subpart IIII RCSA §22a-174-22e
EU-200		Cummins Emergency Generator Model No. LTA-10G1 (1022 Chapel Street) Construction date: 2002	250 kW	None	None	RCSA §22a-174-3b(e)
EU-212	GEU-13	Solar Taurus 70 Gas Turbine No. 1 and Victory Heat Recovery Steam Generator (HRSG) with Coen Grid Style Duct Burner (Central Power Plant) Construction date: 2016	7.9 MW	SCR for NO <sub>x</sub> Oxidation Catalyst for CO	CEMS for NO <sub>x</sub> and O <sub>2</sub>	P-117-0377 RCSA §22a-174-22e 40 CFR Part 60 Subpart KKKK
EU-213		Solar Taurus 70 Gas Turbine No. 2 and Victory Heat Recovery Steam Generator (HRSG) with Coen Grid Style Duct Burner (Central Power Plant) Construction date: 2016	7.9 MW	SCR for NO <sub>x</sub> Oxidation Catalyst for CO	CEMS for NO <sub>x</sub> and O <sub>2</sub>	P-117-0378 RCSA §22a-174-22e 40 CFR Part 60 Subpart KKKK
EU-214		Kohler Emergency Generator Model No. 80REZGD (Greely Lab/Marsh Botanical Garden) Construction date: 2016	80 kW	None	None	40 CFR Part 60 Subpart JJJJ

## Section II: Emissions Units Information

**TABLE II.A: EMISSIONS UNIT DESCRIPTION, continued**

<b>Emissions Units</b>	<b>Grouped Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Size Rating/Design Capacity</b>	<b>Control Unit Description</b>	<b>Monitoring Unit Description</b>	<b>Permit, Order, Registration Number, or Federal Standard</b>
EU-202	GEU-15	Cummins Emergency Generator Model No. DGFC-580102 (67-81 Howe Street) Construction date: 2007	200 kW	None	None	RCSA §22a-174-3b(e) 40 CFR Part 60 Subpart IIII
EU-215		Kohler/John Deere Emergency Generator Model No. 250RE0ZJE (2 Whitney Ave) Construction date: 2016	255 kW	None	None	RCSA §22a-174-3b(e) 40 CFR Part 60 Subpart IIII
EU-216		Cummins Emergency Generator Model No. QSL9-G2-NR3 (55 Whitney Ave) Construction date: 2015	230 kW	None	None	RCSA §22a-174-3b(e) 40 CFR Part 60 Subpart IIII
EU-229		Caterpillar Emergency Diesel Generator Model D175 (Divinity School) Construction date: 2024	175 kW	None	None	RCSA §22a-174-3b(e) 40 CFR Part 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 without notifying the commissioner, provided that such operations are explicitly provided for and described in Table II.B. There are no Alternate Operating Scenarios for the premises.

<b>TABLE II.B: OPERATING SCENARIO IDENTIFICATION</b>	
<b>Emissions Units Associated with the Scenario</b>	<b>Description of Scenario</b>
All emissions units listed in Section II.A, Table II.A of this Title V permit.	All emissions units shall be operated in accordance with applicable permit or regulation terms and conditions.

### Section III: Applicable Requirements and Compliance Demonstration

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The following contains summaries of applicable regulations and compliance demonstration for each identified Emissions Unit regulated by this Title V permit.

#### A. EMISSIONS UNIT 1 (EU-1) - Nebraska Boiler, Model No. NS-F-89 (Subject to P-117-0210, 40 CFR Part 60 Subpart Db, 40 CFR Part 63 Subpart JJJJJ, RCSA §22a-174-22e)

##### 1. Fuel Consumption

###### a. Limitation or Restriction

- i. The Permittee shall limit the maximum heat input of EU-1 to 1,033,680 MMBtu per consecutive 12 month period. [P-117-0210]
- ii. The following equation establishes the corresponding maximum fuel consumption while allowing the flexibility of burning natural gas and ultra-low sulfur distillate (or biodiesel blend) [117-0210]:

$$X^*(Y \text{ MMBtu/gal}) + Z^*(0.001 \text{ MMBtu/ft}^3) = 1,033,680 \text{ MMBtu}$$

where,

X = gallons of ultra-low sulfur distillate (or biodiesel blend),  $\leq 2.638 \text{ MMgal}$ ;

Y = higher heating value of liquid fuel actually combusted in boiler;

$X^*Y \leq 361,406 \text{ MMBtu}$ ; and

Z =  $\text{ft}^3$  of natural gas,  $\leq 1,033.68 \text{ MMft}^3$

- iii. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations. [P-117-0210]

###### b. Monitoring and Testing Requirements

A fuel metering device shall be used to continuously monitor the total fuel feed to EU-1. [P-117-0210]

###### c. Record Keeping Requirements

- i. The Permittee shall keep records of monthly and consecutive 12 month fuel consumption. The consecutive 12 month fuel consumption shall be determined by adding (for each fuel) the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0210]
- ii. The Permittee shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for oil and natural gas for the reporting period. The annual capacity factor is determined on a 12 month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 CFR §60.49b(d)]

###### d. Reporting Requirements

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. [RCSA §22a-174-33(j)(1)(X)]

##### 2. Maximum Sulfur Content

###### a. Limitation or Restriction

- i. The maximum fuel sulfur content shall not exceed 0.0015% by weight, dry basis. [P-117-0210; RCSA §22a-174-19b]
- ii. The Permittee shall burn only ultra-low sulfur distillate fuel (or biodiesel blend). This fuel meets the definition of very low sulfur oil, which means for units constructed, reconstructed, or modified on or before February 28, 2005, an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without SO<sub>2</sub> emission control, has a SO<sub>2</sub> emission rate equal to or less than 215 ng/J (0.5 lb/MMBtu) heat input. [40 CFR §60.41b; 40 CFR §60.42b(k)(2)]

###### b. Monitoring and Testing Requirements

- i. Compliance with the fuel oil sulfur limit listed in Section III.A.2.a of this Title V permit shall be

### Section III: Applicable Requirements and Compliance Demonstration

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determined by fuel certification for each delivery of fuel. [40 CFR §60.42b(j)]

- ii. The Permittee shall obtain fuel receipts for very low sulfur oil as specified in 40 CFR §60.49b(r) and as such is not subject to the percent reduction requirements in 40 CFR §60.42b, compliance and performance testing requirements of 40 CFR §60.45b, or the emissions monitoring requirements under 40 CFR §60.47b(a). [40 CFR §60.42b(j); 40 CFR §60.45b(j); 40 CFR §60.47b(f)]

#### c. Record Keeping Requirements

The Permittee shall keep records of the fuel certification for each delivery of fuel oil from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by this 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. [P-117-0210]

#### d. Reporting Requirements

- i. The Permittee shall submit to the Administrator reports certifying that only very low sulfur oil, natural gas, wood, and/or other fuels that are known to contain insignificant amounts of sulfur were combusted in the affected facility during the reporting period. Such reports shall contain the information required in Section III.A.2.b.ii of this Title V permit. [40 CFR §60.49b(r)(1)]
- ii. The reporting period for the reports required under 40 CFR Part 60 Subpart Db is each six month period. All reports shall be submitted to the Administrator and/or the commissioner and shall be postmarked by the 30th day following the end of the reporting period. [40 CFR §60.49b(w)]
- iii. 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. [RCSA §22a-174-33(j)(1)(X)]

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

#### a. Limitation or Restriction

- i. Emissions shall not exceed the following at any time when burning natural gas, except during startup, shutdown and routine maintenance, unless otherwise specified in this Title V permit [P-117-0210]:
  - (A) ≤ 0.35 lb/hr
  - (B) ≤ 0.003 lb/MMBtu
  - (C) ≤ 1.53 tpy
- ii. Emissions shall not exceed the following at any time when burning ultra-low sulfur distillate fuel (or biodiesel blend), except during startup, shutdown and routine maintenance, unless otherwise specified in this Title V permit [P-117-0210]:
  - (A) ≤ 1.92 lb/hr
  - (B) ≤ 0.017 lb/MMBtu
  - (C) ≤ 3.07 tpy
- iii. Total annual emissions for all fuels: ≤ 4.08 tpy

#### b. Monitoring and Testing Requirements

- i. Demonstration of compliance with the emission limits in Section III.A.3.a of this Title V permit shall be met by using emission factors from the following sources based on the fuel combusted:  
[P-117-0210]
  - (A) Natural gas: Manufacturer's Data (from February 1996 NSR Application)
  - (B) Ultra low sulfur distillate (or biodiesel blend): AP-42, 5<sup>th</sup> Edition, Section 1.3, May 2010
- ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.A.3.a of this Title V permit, as allowed by state or federal statute, law or

### Section III: Applicable Requirements and Compliance Demonstration

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regulation. [P-117-0210]

- iii. Recurring stack testing for PM<sub>10</sub> emissions is required every five years from the date of the last stack test while firing ultra low sulfur distillate (or biodiesel blend). [P-117-0210]

#### c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month PM<sub>10</sub> emissions in units of tons for this unit. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0210]

#### d. Reporting Requirements

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. [RCSA §22a-174-33(j)(1)(X)]

## 4. SO<sub>2</sub>

#### a. Limitation or Restriction

- i. Emissions shall not exceed the following at any time when burning natural gas, except during startup, shutdown and routine maintenance, unless otherwise specified in this Title V permit [P-117-0210]:
  - (A)  $\leq 0.07$  lb/hr
  - (B)  $\leq 6.00E-4$  lb/MMBtu
  - (C)  $\leq 0.31$  tpy
- ii. Emissions shall not exceed the following at any time when burning ultra-low sulfur distillate fuel (or biodiesel blend), except during startup, shutdown and routine maintenance, unless otherwise specified in this Title V permit [P-117-0210]:
  - (A)  $\leq 0.002$  lb/hr
  - (B)  $\leq 1.6E-5$  lb/MMBtu
  - (C)  $\leq 0.003$  tpy
- iii. Total annual emissions for all fuels:  $\leq 0.31$  tpy

#### b. Monitoring and Testing Requirements

- i. Demonstration of compliance with the emission limits in Section III.A.4.a of this Title V permit shall be met by using emission factors from the following sources based on the fuel combusted [P-117-0210]:
  - (A) Natural gas: Manufacturer's Data (from February 1996 NSR Application)
  - (B) Ultra low sulfur distillate (or biodiesel blend): AP-42, 5<sup>th</sup> Edition, Section 1.3, May 2010
- ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.A.4.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0210]

#### c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month SO<sub>2</sub> emissions in units of tons for this unit. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0210]

#### d. Reporting Requirements

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. [RCSA §22a-174-33(j)(1)(X)]

### Section III: Applicable Requirements and Compliance Demonstration

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

##### a. Limitation or Restriction

- i. Emissions shall not exceed the following at any time when burning natural gas, except during startup, shutdown and routine maintenance, unless otherwise specified in this Title V permit [P-117-0210]:
  - (A) ≤ 4.72 lb/hr
  - (B) ≤ 0.04 lb/MMBtu
  - (C) ≤ 20.67 tpy
- ii. Emissions shall not exceed the following at any time when burning ultra-low sulfur distillate fuel (or biodiesel blend), except during startup, shutdown and routine maintenance, unless otherwise specified in this Title V permit:
  - (A) ≤ 22.60 lb/hr [P-117-0210]
  - (B) ≤ 0.15 lb/MMBtu, based on a daily block average [RCSA §22a-174-22e(d)(3)(C)]
  - (C) ≤ 36.14 tpy [P-117-0210]
- iii. Total annual emissions for all fuels: ≤ 49.59 tpy
- iv. Total NO<sub>x</sub> emissions from EU-1 and GEU-6 shall not exceed 121.5 tpy. [P-117-0210]

##### b. Monitoring and Testing Requirements

- i. The Permittee shall install, calibrate, maintain, operate, and certify CEMS for measuring NO<sub>x</sub> and O<sub>2</sub> (or CO<sub>2</sub>) emissions discharged to the atmosphere, and shall record the output of the system. The CEMS shall be calibrated, operated and tested in accordance with RCSA §22a-174-4a and with the requirements specified in 40 CFR Part 60 Subpart A, Appendix B and Appendix F, as may be amended from time to time. [40 CFR §60.48b(b)(1); RCSA §§22a-174-22e(l)(1)(D) and -4a(d)(1)(A)]
- ii. The NO<sub>x</sub> and O<sub>2</sub> CEMS shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR §60.48b(c)]
- iii. The 1-hour average NO<sub>x</sub> emission rates measured by the NO<sub>x</sub> CEMS shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates given 40 CFR §60.44b. The 1-hour averages shall be calculated using the data points required in 40 CFR §60.13(h)(2). [40 CFR §60.48b(d)]
- iv. When NO<sub>x</sub> emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of Appendix A of 40 CFR Part 60, Method 7A of Appendix A of 40 CFR Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR §60.48b(f)]
- v. The NO<sub>x</sub> standards under 40 CFR §60.44b(a) apply at all times including periods of startup, shutdown, or malfunction. [40 CFR §60.44b(h); 40 CFR §60.46b(a)]
- vi. The averaging times shall be 24 hours rolling for the NO<sub>x</sub> CEMS and 1-hour block for the O<sub>2</sub> CEMS and shall include all periods of operation, including startup, shutdown, and malfunction. As stated in Section III.A.5.a of this Title V Permit, emission limits do not apply during periods of startup, shutdown, and routine maintenance. [P-117-0210]
- vii. The Permittee shall collect quality assured CEMS data for all emission unit operating conditions. Data collection shall include periods of startup or shutdown, monitoring system malfunctions, out-of-control periods, while conducting maintenance or repairs, and periods of required monitoring system quality assurance or quality control activities, such as calibration checks and required zero and span adjustments. [RCSA §22a-174-22e(m)(2)]
- viii. The Permittee shall conduct any performance or quality assurance testing in accordance with a testing

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protocol approved by the commissioner. [RCSA §22a-174-22e(m)(4)]

- ix. Demonstration of compliance with the emission limits in Section III.A.5.a of this Title V permit shall be met by using emission factors from the following sources based on the fuel combusted [RCSA §22a-174-33(j)(1)(K)(ii)]
  - (A) Natural gas: CEMS data
  - (B) Ultra low sulfur distillate (or biodiesel blend): CEMS data
- x. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.A.5.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0210]

c. *Record Keeping Requirements*

- i. The Permittee shall make and keep records of the following information each steam generating unit operating day:
  - (A) Calendar date;
  - (B) The average hourly NO<sub>x</sub> emission rates (expressed as NO<sub>2</sub>) (ng/J or lb/MMBtu heat input) measured or predicted;
  - (C) The 30-day average NO<sub>x</sub> emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
  - (D) Identification of the steam generating unit operating days when the calculated 30-day average NO<sub>x</sub> emission rates are in excess of the NO<sub>x</sub> emissions standards under Section III.A.5.a of this Title V permit, with the reasons for such excess emissions as well as a description of corrective actions taken;
  - (E) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
  - (F) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
  - (G) Identification of “F” factor used for calculations, method of determination, and type of fuel combusted;
  - (H) Identification of the times when the pollutant concentration exceeded full span of the CEMS;
  - (I) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and
  - (J) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of 40 CFR Part 60. [40 CFR §60.49b(g)]
- ii. The Permittee shall keep records of the date and work performed for repairs, replacement of parts and other maintenance for EU-1. [RCSA §22a-174-22e(j)(2)(B)]
- iii. The Permittee shall keep records of the dates and times of all emission testing required by RCSA §22a-174-22e, 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-174-22e(j)(2)(C)]
- iv. The Permittee shall keep CEMS records [RCSA §22a-174-22e(j)(2)(D)]:
  - (A) Records of all performance evaluations, calibration checks and adjustments on such monitor,
  - (B) A record of maintenance performed,
  - (C) All data necessary to complete the quarterly reports required under RCSA §22a-174-22e(k)(3), and
  - (D) Charts, electronically stored data, and printed records produced by such CEMS as needed to demonstrate compliance with the requirements of RCSA §22a-174-22e.

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- v. The Permittee shall keep the following records of all tune-ups, repairs, replacement of parts and other maintenance for EU-1. [RCSA §22a-174-22e(j)(2)(E)]
- vi. The Permittee shall keep copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(F)]
- vii. The Permittee shall calculate and record the monthly and consecutive 12 month NO<sub>x</sub> emissions in units of tons for this unit. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0210]
- viii. The Permittee shall calculate and record monthly and consecutive 12 month actual NO<sub>x</sub> emissions from EU-1 and GEU-6 combined. The combined consecutive 12 month actual NO<sub>x</sub> emissions shall be determined by adding the current month's emissions to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0210, RCSA §22a-174-33(j)(1)(K)(ii)]

#### *d. Reporting Requirements*

- i. The Permittee shall submit to the Administrator and/or commissioner the performance evaluation of the CEMS using the applicable performance specifications in Appendix B of the 40 CFR Subpart 60. [40 CFR §60.49b(b)]
- ii. The reporting period for the reports required under 40 CFR Part 60 Subpart Db is each six month period. All reports shall be submitted to the Administrator and/or the commissioner and shall be postmarked by the 30th day following the end of the reporting period. [40 CFR §60.49b(w)]
- iii. Not more than 60 days after the completion of a certification test conducted under the requirements of RCSA §22a-174-22e(m), the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22e(k)(2)]
- iv. The Permittee shall submit to the commissioner, on forms provided by the commissioner, written quarterly reports of excess emissions and CEMS malfunctions. Such reports shall be submitted to the commissioner on or before January 30, April 30, July 30 and October 30 of each year and shall include: [RCSA §22a-174-22e(k)(3)]
  - (A) All daily block average data, in a format acceptable to the commissioner, for the three calendar month period ending the month before the due date of the report;
  - (B) The date and time of commencement and completion of each period of excess emissions;
  - (C) The magnitude and suspected cause of the excess emissions;
  - (D) Actions taken to correct the excess emissions;
  - (E) The date and time when each malfunction of the CEMS commenced and ended;
  - (F) Actions taken to correct each malfunction; and
  - (G) If no excess emissions or CEMS malfunctions occur during a quarter, the owner or operator shall indicate that no excess emissions or malfunctions occurred during the quarter.
- v. Upon written notice, the commissioner may require the Permittee to provide all hourly CEMS data, in a format acceptable to the commissioner, for the three calendar month period identified in such written notice. [RCSA §22a-174-22e(k)(4)]
- vi. The Permittee shall notify the commissioner in writing at least 30 days prior to conducting any performance or quality assurance testing of the NO<sub>x</sub> CEMS. [RCSA §22a-174-22e(m)(4)]
- vii. 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. [RCSA §22a-174-33(j)(1)(X)]

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### 6. VOC

#### a. *Limitation or Restriction*

- i. Emissions shall not exceed the following at any time when burning natural gas, except during startup, shutdown and routine maintenance, unless otherwise specified in this Title V permit [P-117-0210]:
  - (A)  $\leq 0.35$  lb/hr
  - (B)  $\leq 0.003$  lb/MMBtu
  - (C)  $\leq 1.53$  tpy
- ii. Emissions shall not exceed the following at any time when burning ultra-low sulfur distillate fuel (or biodiesel blend), except during startup, shutdown and routine maintenance, unless otherwise specified in this Title V permit [P-117-0210]:
  - (A)  $\leq 0.17$  lb/hr
  - (B)  $\leq 0.0015$  lb/MMBtu
  - (C)  $\leq 0.27$  tpy
- iii. Total annual emissions for all fuels:  $\leq 1.53$  tpy

#### b. *Monitoring and Testing Requirements*

- i. Demonstration of compliance with the emission limits in Section III.A.6.a of this Title V permit shall be met by using emission factors from the following sources based on the fuel combusted [P-117-0210]:
  - (A) Natural gas: Manufacturer's Data (from February 1996 NSR Application)
  - (B) Ultra low sulfur distillate (or biodiesel blend): AP-42, 5<sup>th</sup> Edition, Section 1.3, May 2010
- ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.A.6.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0210]

#### c. *Record Keeping Requirements*

The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons for this unit. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0210]

#### d. *Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

### 7. CO

#### a. *Limitation or Restriction*

- i. Emissions shall not exceed the following at any time when burning natural gas, except during startup, shutdown and routine maintenance, unless otherwise specified in this Title V permit [P-117-0210]:
  - (A)  $\leq 2.95$  lb/hr
  - (B)  $\leq 0.025$  lb/MMBtu
  - (C)  $\leq 12.92$  tpy
- ii. Emissions shall not exceed the following at any time when burning ultra-low sulfur distillate fuel (or biodiesel blend), except during startup, shutdown and routine maintenance, unless otherwise specified in this Title V permit [P-117-0210]:
  - (A)  $\leq 4.07$  lb/hr

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- (B)  $\leq 0.036 \text{ lb/MMBtu}$
- (C)  $\leq 6.51 \text{ tpy}$
- iii. Total annual emissions for all fuels:  $\leq 14.91 \text{ tpy}$
- b. *Monitoring and Testing Requirements*
  - i. Demonstration of compliance with the emission limits in Section III.A.7.a of this Title V permit shall be met by using emission factors from the following sources based on the fuel combusted [P-117-0210]:
    - (A) Natural gas: Manufacturer's Data (from February 1996 NSR Application)
    - (B) Ultra low sulfur distillate (or biodiesel blend): AP-42, 5<sup>th</sup> Edition, Section 1.3, May 2010
  - ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.A.7.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0210]
  - iii. Recurring stack testing for CO emissions while firing each allowable fuel is required every five years from the date of the last stack test. [P-117-0210]
- c. *Record Keeping Requirements*

The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions in units of tons for this unit. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0210]

#### d. *Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

## 8. Opacity

#### a. *Limitation or Restriction*

- i. The Permittee shall not exceed the following visible emissions limits: [RCSA §22a-174-18(b)]
  - (A)  $\leq 20\%$  opacity during any six-minute block average as measured by 40 CFR 60, appendix a, reference method 9; or
  - (B)  $\leq 40\%$  opacity as measured by 40 CFR 60, appendix a, reference method 9, reduced to a one-minute block average.
- ii. When burning oil in EU-1, the Permittee shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (six minute average), except for one six minute period per hour of not more than 27 percent opacity. [40 CFR §60.43b(f)]

#### b. *Monitoring and Testing Requirements*

- i. Compliance with the opacity limit in Section III.A.8.a of this Title V permit shall be determined by conducting monitoring as required by the Administrator and/or the commissioner using the procedures and reference methods specified in 40 CFR §§60.46b(d) and 60.48b(a).  
[40 CFR §§60.46b(d) and 60.48b(a)]
- ii. As an alternative to the periodic opacity monitoring required by Section III.A.8.b.i of this Title V permit, the Permittee may elect to install, calibrate, maintain, operate, and certify a COMS for measuring the opacity of emissions discharged to the atmosphere and record the output. The COMS shall be calibrated, operated and tested in accordance with RCSA §§22a-174-4a and with the requirements specified in 40 CFR Part 60 Subpart A, Appendix B and Appendix F, as may be amended from time to time. [40 CFR §60.48b(a); RCSA §22a-174-4a]
- iii. The opacity standards apply at all times, except during periods of startup, shutdown or malfunction.  
[40 CFR §60.43b(g); 40 CFR §60.46b(a); P-117-0210]

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- c. *Record Keeping Requirements*  
The Permittee shall maintain records of opacity. [40 CFR §60.49b(f)]
- d. *Reporting Requirements*
  - i. The reporting period for the reports required under 40 CFR Part 60 Subpart Db is each six month period. All reports shall be submitted to the Administrator and/or the commissioner and shall be postmarked by the 30th day following the end of the reporting period. [40 CFR §60.49b(w)]
  - ii. 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. [RCSA §22a-174-33(j)(1)(X)]

**9. 40 CFR Part 63 Subpart JJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources [Federal]**

- a. *Limitation or Restriction*  
The Permittee shall conduct a tune-up of the boiler biennially as specified in 40 CFR §63.11223(b). The Permittee must conduct the tune-up while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.  
For boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio, the Permittee shall conduct a tune-up every 5 years. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up.  
[40 CFR §63.11201(b); Table 2, Condition 14 of 40 CFR Part 63 Subpart JJJJJ; 40 CFR §63.11223(a) & (c)]
- b. *Monitoring and Testing Requirements*  
The Permittee, at all times, shall operate and maintain this boiler 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 40 CFR Part 63 Subpart JJJJJ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that 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 §63.11205(a)]
- c. *Record Keeping Requirements*
  - i. The Permittee shall keep, as required in 40 CFR §63.10(b)(2)(xiv), a copy of each notification and report that is submitted to comply with 40 CFR Part 63 Subpart JJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that is submitted.  
[40 CFR §63.11225(c)(1)]
  - ii. The Permittee shall keep records that identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.  
[40 CFR §63.11225(c)(2)(i)]
  - iii. The Permittee shall keep a copy of the one-time energy assessment report.  
[40 CFR §63.11225(c)(2)(iii)]
  - iv. The Permittee shall keep records of the occurrence and duration of each malfunction of the boiler.  
[40 CFR §63.11225(c)(4)]
  - v. The Permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR §63.11205(a), including corrective actions to restore the malfunctioning boiler to its normal or usual manner of operation.  
[40 CFR §63.11225(c)(5)]
- d. *Reporting Requirements*
  - i. The Permittee shall prepare a biennial or 5-year compliance certification report containing the

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information in 40 CFR §§63.11225(b)(1) and (2). This report shall be prepared by March 1 of each year and submitted to the delegated authority upon request. The report must be submitted by March 15 if there were any instances described in paragraph 40 CFR §63.11225(b)(3). [40 CFR §63.11225(b)]

- ii. If the Permittee has switched fuels or made a physical change to the boiler and the fuel switch or change resulted in the applicability of a different subcategory within 40 CFR Part 63 Subpart JJJJJ, in the boiler becoming subject to 40 CFR Part 63 Subpart JJJJJ, or in the boiler switching out of 40 CFR Part 63 Subpart JJJJJ due to a change to 100 percent natural gas, or the Permittee has taken a permit limit that resulted in the Permittee being subject to 40 CFR Part 63 Subpart JJJJJ, the Permittee must provide notice of the date upon which the Permittee switched fuels, made the physical change, or took a permit limit within 30 days of the change. The notification must identify [40 CFR §63.11225(g)]:
  - (A) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels, were physically changed, or took a permit limit, and the date of the notice; and
  - (B) The date upon which the fuel switch, physical change, or permit limit occurred.
- iii. 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. [RCSA §22a-174-33(j)(1)(X)]

**B. GROUPED EMISSIONS UNIT 11 (GEU-11) - Nebraska Boilers Nos. 5 & 6, Model Nos. NOS-3/S-75 (Subject to P-117-0371 & P-117-0372, 40 CFR Part 60 Subpart Db, 40 CFR Part 63 Subpart JJJJJ, RCSA §22a-174-22e)**

**1. Fuel Consumption**

*a. Limitation or Restriction*

- i. Maximum fuel consumption over any consecutive 12 month period for the units in GEU-11 combined shall not exceed 2,127 MMcf of natural gas and 1,471,740 gal of distillate oil. The use of a biodiesel blend (B5) is allowed as an alternative to distillate oil. [P-117-0371; P-117-0372]
- ii. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations. [P-117-0371; P-117-0372]

*b. Monitoring and Testing Requirements*

The Permittee shall use a non-resettable totalizing fuel metering device to continuously monitor fuel feed to GEU-11. [P-117-0371; P-117-0372]

*c. Record Keeping Requirements*

The Permittee shall record the monthly and consecutive 12 month fuel consumption for GEU-11. The consecutive 12 month fuel consumption shall be determined by adding (for each fuel) the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0371; P-117-0372]

*d. Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

**2. Maximum Fuel Sulfur Content**

*a. Limitation or Restriction*

- i. The maximum fuel sulfur content shall not exceed 0.0015% by weight, dry basis. [P-117-0371; P-117-0372; RCSA §22a-174-19b]
- ii. The Permittee shall burn only very low sulfur oil or natural gas. Very low sulfur oil means for units constructed, reconstructed, or modified after February 28, 2005, an oil that contains no more than 0.5

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weight percent sulfur or that, when combusted without SO<sub>2</sub> emission control, has a SO<sub>2</sub> emission rate equal to or less than 140 ng/J (0.32 lb/MMBtu) heat input.

[40 CFR §60.41b; 40 CFR §60.42b(k)(2)]

*b. Monitoring and Testing Requirements*

- i. Compliance with the fuel oil sulfur limit listed in Section III.B.2.a.ii of this Title V permit shall be determined by fuel certification for each delivery of fuel. [40 CFR §60.42b(j)]
- ii. The Permittee shall obtain fuel receipts for very low sulfur oil as specified in 40 CFR §60.49b(r) and as such is not subject to the percent reduction requirements in 40 CFR §60.42b, compliance and performance testing requirements of 40 CFR §60.45b, or the emissions monitoring requirements under 40 CFR §60.47b(a). [40 CFR §60.42b(j); 40 CFR §60.45b(j); 40 CFR §60.47b(f)]

*c. Record Keeping Requirements*

The Permittee shall keep records of the fuel certification for each delivery of fuel oil from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by GEU-11 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. [P-117-0371; P-117-0372]

*d. Reporting Requirements*

- i. The Permittee shall submit to the Administrator reports certifying that only very low sulfur oil, natural gas, wood, and/or other fuels that are known to contain insignificant amounts of sulfur were combusted in the affected facility during the reporting period. Such reports shall contain the information required in Section III.B.2.b.i of this Title V permit. [40 CFR §60.49b(r)(1)]
- ii. The reporting period for the reports required under 40 CFR Part 60 Subpart Db is each six month period. All reports shall be submitted to the Administrator and/or the commissioner and shall be postmarked by the 30th day following the end of the reporting period. [40 CFR §60.49b(w)]
- iii. 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. [RCSA §22a-174-33(j)(1)(X)]

### 3. PM/PM<sub>10</sub>/PM<sub>2.5</sub>

*a. Limitation or Restriction*

- i. Emissions from each unit in GEU-11 shall not exceed the following at any time when burning natural gas, unless otherwise specified in this Title V permit [P-117-0371; P-117-0372; RCSA §22a-174-18(e)(1)]:
  - (A) PM/PM<sub>10</sub>/PM<sub>2.5</sub>:  $\leq 0.92 \text{ lb/hr}$
  - (B) PM/PM<sub>10</sub>/PM<sub>2.5</sub>:  $\leq 0.10 \text{ lb/MMBtu}$
- ii. Emissions from each unit in GEU-11 shall not exceed the following at any time when burning distillate oil or Biodiesel blend (B5), unless otherwise specified in this Title V permit [P-117-0371; P-117-0372; RCSA §22a-174-18(e)(1)]:
  - (A) PM:  $\leq 2.81 \text{ lb/hr}$
  - (B) PM<sub>10</sub>:  $\leq 1.96 \text{ lb/hr}$
  - (C) PM<sub>2.5</sub>:  $\leq 1.32 \text{ lb/hr}$
  - (D) PM/PM<sub>10</sub>/PM<sub>2.5</sub>:  $\leq 0.10 \text{ lb/MMBtu}$
- iii. Total annual emissions from all units in GEU-11 combined shall not exceed the following [P-117-0371; P-117-0372]:
  - (A) PM:  $\leq 9.8 \text{ tpy}$
  - (B) PM<sub>10</sub>:  $\leq 9.0 \text{ tpy}$

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(C) PM<sub>2.5</sub>: ≤ 8.4 tpy

*b. Monitoring and Testing Requirements*

- i. Demonstration of compliance with the emission limits in Section III.B.3.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources. [P-117-0371; P-117-0372]:
  - (A) Natural gas: AP-42, 5<sup>th</sup> Edition, Vol. 1, Table 1.4-2
  - (C) Distillate oil or Biodiesel blend (B5): AP-42, 5<sup>th</sup> Edition, Vol. 1, Table 1.3-2 and 1.3-6
- ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.B.3.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0371; P-117-0372]

*c. Record Keeping Requirements*

The Permittee shall calculate and record the monthly and consecutive 12 month PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions in units of tons for all units in GEU-11 combined. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. [RCSA §22a-174-33(j)(1)(K)(ii)]

*d. Reporting Requirements*

- i. The Permittee shall submit to the commissioner written quarterly reports of excess emissions. Such reports shall be submitted to the commissioner on or before January 30, April 30, July 30, and October 30 and shall include data for the three calendar month period ending the month before the due date of the report. For each period of excess emissions, such report shall include the date and time of commencement and completion of such period, the magnitude and suspected cause of the excess emissions and all actions taken to correct the excess emissions. [P-117-0371; P-117-0372]
- ii. 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. [RCSA §22a-174-33(j)(1)(X)]

## 4. SO<sub>2</sub>

*a. Limitation or Restriction*

- i. Emissions from each unit in GEU-11 shall not exceed the following at any time when burning natural gas, unless otherwise specified in this Title V permit [P-117-0371; P-117-0372]:  
≤ 0.07 lb/hr
- ii. Emissions from each unit in GEU-11 shall not exceed the following at any time when burning distillate oil or Biodiesel blend (B5), unless otherwise specified in this Title V permit [P-117-0371; P-117-0372]:  
≤ 0.21 lb/hr
- iii. Total annual SO<sub>2</sub> emissions from all units in GEU-11 combined shall not exceed the following [P-117-0371; P-117-0372]:  
≤ 0.8 tpy

*b. Monitoring and Testing Requirements*

- i. Demonstration of compliance with the emission limits in Section III.B.4.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources. [P-117-0371; P-117-0372]:
  - (A) Natural gas: AP-42, 5<sup>th</sup> Edition, Vol. 1, Table 1.4-2
  - (B) Distillate oil or Biodiesel blend (B5): AP-42, 5<sup>th</sup> Edition, Vol. 1, Table 1.3-1
- ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.B.4.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0371; P-117-0372]

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regulation. [P-117-0371; P-117-0372]

#### c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month SO<sub>2</sub> emissions in units of tons for each unit combined. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [RCSA §22a-174-33(j)(1)(K)]

#### d. Reporting Requirements

- i. The Permittee shall submit to the commissioner written quarterly reports of excess emissions. Such reports shall be submitted to the commissioner on or before January 30, April 30, July 30, and October 30 and shall include data for the three calendar month period ending the month before the due date of the report. For each period of excess emissions, such report shall include the date and time of commencement and completion of such period, the magnitude and suspected cause of the excess emissions and all actions taken to correct the excess emissions. [P-117-0371; P-117-0372]
- ii. 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. [RCSA §22a-174-33(j)(1)(X)]

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

#### a. Limitation or Restriction

- i. Emissions from each unit in GEU-11 shall not exceed the following at any time when burning natural gas, unless otherwise specified in this Title V permit:
  - (A) ≤ 1.34 lb/hr, 24 hour block average. [P-117-0371; P-117-0372]
  - (B) ≤ 0.011 lb/MMBtu, 24 hour block average. This limit only applies during periods of operation > 25% of maximum capacity. [P-117-0371; P-117-0372]
  - (C) ≤ 0.10 lb/MMBtu, daily block average. [RCSA §22a-174-22e]
- ii. Emissions from each unit in GEU-11 shall not exceed the following at any time when burning distillate oil or Biodiesel blend (B5), unless otherwise specified in this Title V permit:
  - (A) ≤ 11.54 lb/hr, 24 hour block average. [P-117-0371; P-117-0372]
  - (B) ≤ 0.10 lb/MMBtu, 24 hour block average. This limit only applies during periods of operation > 25% of maximum capacity. [P-117-0371; P-117-0372]
  - (C) ≤ 0.15 lb/MMBtu, daily block average. [RCSA §22a-174-22e]
- iii. Total annual NO<sub>x</sub> emissions from all units in GEU-11 combined shall not exceed the following [P-117-0371; P-117-0372]:  
≤ 20.6 tpy

#### b. Monitoring and Testing Requirements

- i. The Permittee shall install, calibrate, maintain, operate, and certify CEMS for measuring NO<sub>x</sub> and O<sub>2</sub> (or CO<sub>2</sub>) emissions discharged to the atmosphere, and shall record the output of the system. The CEMS shall be calibrated, operated and tested in accordance with RCSA §22a-174-4a and with the requirements specified in 40 CFR Part 60 Subpart A, Appendix B and Appendix F, as may be amended from time to time.  
[40 CFR §60.48b(b)(1); RCSA §§22a-174-4a, -22e(l)(1)(D), P-117-0371, P-0117-0372]
- ii. The NO<sub>x</sub> and O<sub>2</sub> CEMS shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR §60.48b(c)]
- iii. The 1-hour average NO<sub>x</sub> emission rates measured by the NO<sub>x</sub> CEMS shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates given 40 CFR §60.44b.

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The 1-hour averages shall be calculated using the data points required in 40 CFR §60.18(h)(1) [40 CFR §60.48b(d)]

- iv. When NO<sub>x</sub> emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of Appendix A of 40 CFR Part 60, Method 7A of Appendix A of 40 CFR Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR §60.48b(f)]
- v. The NO<sub>x</sub> standards under 40 CFR §60.44b(a) apply at all times including periods of startup, shutdown, or malfunction. [40 CFR §60.44b(h); 40 CFR §60.46b(a)]
- vi. The Permittee shall collect quality assured CEMS data for all emission unit operating conditions. Data collection shall include periods of startup or shutdown, monitoring system malfunctions, out-of-control periods, while conducting maintenance or repairs, and periods of required monitoring system quality assurance or quality control activities, such as calibration checks and required zero and span adjustments. [RCSA §22a-174-22e(m)(2)]
- vii. The Permittee shall conduct any performance or quality assurance testing in accordance with a testing protocol approved by the commissioner. [RCSA §22a-174-22e(m)(4)]
- viii. The Permittee shall use data recorded by the NO<sub>x</sub> CEMS and any other records and reports to determine compliance with NO<sub>x</sub> emission limits in Section III.B.5.a of this Title V permit. [RCSA §22a-174-22e(l)(7)]
- ix. Demonstration of compliance with the emission limits in Section III.B.5.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources. [P-117-0371; P-117-0372]:
  - (A) Natural gas: CEMS data
  - (B) Distillate oil or Biodiesel blend (B5): CEMS data
- x. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.B.5.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0371; P-117-0372]

c. *Record Keeping Requirements*

- i. The Permittee shall make and maintain records of all tune-ups, repairs, replacement of parts and other maintenance for GEU-11. [P-117-0371; P-117-0372; RCSA §22a-174-22e(j)(2)(F)]
- ii. The Permittee shall maintain all charts, electronically stored data and printed records produced by the continuous emissions monitoring system. The Permittee shall also maintain records of all performance evaluations, calibration checks and adjustment of the emissions monitor. [P-117-0371; P-117-0372]
- iii. The Permittee shall submit to the Administrator and/or commissioner the performance evaluation of the CEMS using the applicable performance specifications in Appendix B of the 40 CFR Part 60. [40 CFR §60.49b(b)]
- iv. The Permittee shall maintain records of the following information each steam generating unit operating day [40 CFR §60.49b(g)]:
  - (A) Calendar date;
  - (B) The average hourly NO<sub>x</sub> emission rates (expressed as NO<sub>2</sub>) (ng/J or lb/MMBtu heat input) measured or predicted;
  - (C) The 30-day average NO<sub>x</sub> emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
  - (D) Identification of the steam generating unit operating days when the calculated 30-day average NO<sub>x</sub>

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emission rates are in excess of the NO<sub>x</sub> emissions standards under Section III.B.5.e of this Title V permit, with the reasons for such excess emissions as well as a description of corrective actions taken;

- (E) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
- (F) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
- (G) Identification of “F” factor used for calculations, method of determination, and type of fuel combusted;
- (H) Identification of the times when the pollutant concentration exceeded full span of the CEMS;
- (I) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and
- (J) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of 40 CFR Part 60.

- v. The Permittee shall keep monthly and annual records of all fuel used, continuous emissions monitoring, and operating hours. [RCSA §22a-174-22e(j)(2)(D)]
- vi. The Permittee shall keep copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(F)]
- vii. The Permittee shall keep all charts, electronically stored data, and printed records produced by the NO<sub>x</sub> CEMS. [RCSA §22a-174-22e(j)(2)(D)]
- viii. The Permittee shall keep records of all performance evaluations, calibration checks and adjustments on the NO<sub>x</sub> CEMS; a record of maintenance procedures; and all data necessary to complete the quarterly reports required under Section III.B.5.d.v of this Title V permit.  
[RCSA §22a-174-22e(j)(2)(D)]
- ix. The Permittee shall keep any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(G)]
- x. The Permittee shall calculate and record the monthly and consecutive 12 month NO<sub>x</sub> emissions in units of tons for each unit combined. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0371; P-117-0372; RCSA §22a-174-33(j)(1)(K)]

- d. *Reporting Requirements*
  - i. The reporting period for the reports required under 40 CFR Part 60 Subpart Db is each six month period. All reports shall be submitted to the Administrator and/or the commissioner and shall be postmarked by the 30th day following the end of the reporting period. [40 CFR §60.49b(w)]
  - ii. The Permittee shall notify the commissioner in writing at least 30 days prior to conducting any performance or quality assurance testing of the NO<sub>x</sub> CEMS. [RCSA §22a-174-22e(m)(4)]
  - iii. Within 60 days of the completion of certification tests conducted on the NO<sub>x</sub> CEMS, the Permittee shall submit a written report of the results of such testing to the commissioner.  
[RCSA §22a-174-22e(k)(2)]
  - iv. The Permittee shall submit to the commissioner written quarterly reports of excess emissions and CEMS malfunctions. Such reports shall be submitted to the commissioner on or before January 30, April 30, July 30, and October 30 and shall include data for the three calendar month period ending the month before the due date of the report. For each period of excess emissions, such report shall include the date and time of commencement and completion of such period, the magnitude and suspected cause of the excess emissions and all actions taken to correct the excess emissions. For each

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malfunction of the CEMS, such report shall include the date and time of when the malfunction commenced and ended, and all actions taken to correct the malfunction.

[P-117-0371; P-117-0372; RCSA §22a-174-22e(k)(3)]

- v. 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. [RCSA §22a-174-33(j)(1)(X)]

#### 6. VOC

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

- i. Emissions from each unit in GEU-11 shall not exceed the following at any time when burning natural gas, unless otherwise specified in this Title V permit [P-117-0371; P-117-0372]:  
 $\leq 0.67 \text{ lb/hr}$
- ii. Emissions from each unit in GEU-11 shall not exceed the following at any time when burning distillate oil or Biodiesel blend (B5), unless otherwise specified in this Title V permit [P-117-0371; P-117-0372]:  
 $\leq 0.29 \text{ lb/hr}$
- iii. Total annual VOC emissions from all units in GEU-11 combined shall not exceed the following [P-117-0371; P-117-0372]:  
 $\leq 5.8 \text{ tpy}$

##### b. *Monitoring and Testing Requirements*

- i. Demonstration of compliance with the emission limits in Section III.B.6.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources. [P-117-0371; P-117-0372]:
  - (A) Natural gas: AP-42, 5<sup>th</sup> Edition, Vol. 1, Table 1.4-2
  - (B) Distillate oil or Biodiesel blend (B5): AP-42, 5<sup>th</sup> Edition, Vol. 1, Table 1.3-3
- ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.B.6.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0371; P-117-0372]

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

The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons for each unit combined. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0371; P-117-0372]

##### d. *Reporting Requirements*

- i. The Permittee shall submit to the commissioner written quarterly reports of excess emissions. Such reports shall be submitted to the commissioner on or before January 30, April 30, July 30, and October 30 and shall include data for the three calendar month period ending the month before the due date of the report. For each period of excess emissions, such report shall include the date and time of commencement and completion of such period, the magnitude and suspected cause of the excess emissions and all actions taken to correct the excess emissions. [P-117-0371; P-117-0372]
- ii. 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. [RCSA §22a-174-33(j)(1)(X)]

#### 7. CO

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

- i. Emissions from each unit in GEU-11 shall not exceed the following at any time when burning natural

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gas, unless otherwise specified in this Title V permit [P-117-0371; P-117-0372]:  
≤ 4.73 lb/hr

- ii. Emissions from each unit in GEU-11 shall not exceed the following at any time when burning distillate oil or Biodiesel blend (B5), unless otherwise specified in this Title V permit [P-117-0371; P-117-0372]:  
≤ 9.23 lb/hr
- iii. Total annual CO emissions from all units in GEU-11 combined shall not exceed the following [P-117-0371; P-117-0372]:  
≤ 45.4 tpy

b. *Monitoring and Testing Requirements*

- i. Demonstration of compliance with the emission limits in Section III.B.7.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following source. [P-117-0371; P-117-0372]:  
All fuels: Manufacturer's data
- ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.B.7.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0371; P-117-0372]

c. *Record Keeping Requirements*

The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions in units of tons for each unit combined. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [RCSA §22a-174-33(j)(1)(K); P-117-0371; P-117-0372]

d. *Reporting Requirements*

- i. The Permittee shall submit to the commissioner written quarterly reports of excess emissions. Such reports shall be submitted to the commissioner on or before January 30, April 30, July 30, and October 30 and shall include data for the three calendar month period ending the month before the due date of the report. For each period of excess emissions, such report shall include the date and time of commencement and completion of such period, the magnitude and suspected cause of the excess emissions and all actions taken to correct the excess emissions. [P-117-0371; P-117-0372]
- ii. 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. [RCSA §22a-174-33(j)(1)(X)]

## 8. Opacity

a. *Limitation or Restriction*

- i. The units in GEU-11 shall not exceed 10% opacity during any six minute block average as measured by 40 CFR Part 60, Appendix A, Reference Method 9. [P-117-0371; P-117-0372]
- ii. When burning oil in GEU-11, the Permittee shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (six minute average), except for one six minute period per hour of not more than 27 percent opacity [40 CFR §60.43b(f)]

b. *Monitoring and Testing Requirements*

The Permittee shall conduct visible emissions monitoring in accordance with one of the alternative methods and schedules allowed by 40 CFR §60.48b(a). [40 CFR §60.48b(a)]

c. *Record Keeping Requirements*

The Permittee shall maintain records according to the requirements specified in 40 CFR §§60.49b(f)(1) through (3) as applicable to the visible emissions monitoring method used. [40 CFR §60.49b(f)]

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*d. Reporting Requirements*

- i. The Permittee may submit electronic quarterly reports for opacity in lieu of submitting the written reports required under 40 CFR §§60.49b(h) through (l). The format of each quarterly electronic report shall be coordinated with the commissioner. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the Permittee, indicating whether compliance with the applicable emission standards and minimum data requirements of 40 CFR Part 60 Subpart Db was achieved during the reporting period. Before submitting reports in the electronic format, the Permittee shall coordinate with the commissioner to obtain their agreement to submit reports in this alternative format. [40 CFR §60.49b(v)]
- ii. The reporting period for the reports required under 40 CFR Part 60 Subpart Db is each six month period. All reports shall be submitted to the Administrator and/or the commissioner and shall be postmarked by the 30th day following the end of the reporting period. [40 CFR §60.49b(w)]
- iii. The Permittee shall submit to the commissioner written quarterly reports of excess emissions. Such reports shall be submitted to the commissioner on or before January 30, April 30, July 30, and October 30 and shall include data for the three calendar month period ending the month before the due date of the report. For each period of excess emissions, such report shall include the date and time of commencement and completion of such period, the magnitude and suspected cause of the excess emissions and all actions taken to correct the excess emissions. [P-117-0371; P-117-0372]
- iv. 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. [RCSA §22a-174-33(j)(1)(X)]

**9. 40 CFR Part 63 Subpart JJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources [Federal]**

*a. Limitation or Restriction*

- i. The units in GEU-11 are not subject to the emission limits in Table 1 of 40 CFR Part 63 Subpart JJJJJ because the units in GEU-11 combust only oil that contains no more than 0.50 weight percent sulfur or other fuels not subject to a PM emission limit under 40 CFR Part 63 Subpart JJJJJ and do not use a post-combustion technology to reduce PM or SO<sub>2</sub> emissions. (Boiler Classification: New oil-fired boiler at an area source with heat input capacity greater than 10 MMBtu/hr) [40 CFR §63.11210(e)]
- ii. The Permittee is not required to complete an initial performance tune-up, but the Permittee must complete the applicable biennial tune-up, for each unit in GEU-11, as specified in 40 CFR §63.11223 no later than 25 months after the initial startup of each unit in GEU-11.

For boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio, the Permittee shall conduct a tune-up every 5 years. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up.  
[40 CFR §63.11210(f), Table 2, Conditions 5 & 15 of 40 CFR Part 63 Subpart JJJJJ; 40 CFR §63.11223(a)]

*b. Monitoring and Testing Requirements*

The Permittee, at all times, shall operate and maintain the units in GEU-11 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 40 CFR Part 63 Subpart JJJJJ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that 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 §63.11205(a)]

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#### c. Record Keeping Requirements

- i. The Permittee shall keep, as required in 40 CFR §63.10(b)(2)(xiv), a copy of each notification and report that is submitted to comply with 40 CFR Part 63 Subpart JJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that is submitted. [40 CFR §63.11225(c)(1)]
- ii. The Permittee shall keep records that identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned. [40 CFR §63.11225(c)(1)]
- iii. The Permittee shall keep records of the occurrence and duration of each malfunction of each boiler in GEU-11. [40 CFR §63.11225(c)(4)]
- iv. The Permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR §63.11205(a), including corrective actions to restore the malfunctioning boiler to its normal or usual manner of operation. [40 CFR §63.11225(c)(5)]

#### d. Reporting Requirements

- i. The Permittee shall prepare a biennial or 5-year compliance certification report containing the information in 40 CFR §§63.11225(b)(1) and (2). This report shall be prepared by March 1 of each year and submitted to the delegated authority upon request. The report must be submitted by March 15 if there were any instances described in paragraph 40 CFR §63.11225(b)(3). [40 CFR §63.11225(b)]
- ii. The Permittee shall submit a signed statement in the Notification of Compliance Status report that indicates that the Permittee conducted a tune-up of each boiler in GEU-11. [40 CFR §63.11214(b)]
- iii. If the Permittee has switched fuels or made a physical change to any boiler in GEU-11 and the fuel switch or change resulted in the applicability of a different subcategory within 40 CFR Part 63 Subpart JJJJJ, in any boiler in GEU-11 becoming subject to 40 CFR Part 63 Subpart JJJJJ, or in any boiler in GEU-11 switching out of 40 CFR Part 63 Subpart JJJJJ due to a change to 100 percent natural gas, or the Permittee has taken a permit limit that resulted in the Permittee being subject to 40 CFR Part 63 Subpart JJJJJ, the Permittee must provide notice of the date upon which the Permittee switched fuels, made the physical change, or took a permit limit within 30 days of the change. The notification must identify [40 CFR §63.11225(g)]:
  - (A) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels, were physically changed, or took a permit limit, and the date of the notice; and
  - (B) The date upon which the fuel switch, physical change, or permit limit occurred.
- iv. 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. [RCSA §22a-174-33(j)(1)(X)]

#### C. GROUPED EMISSIONS UNIT 6 (GEU-6) – Three Mitsubishi Diesel Generators Nos. 1 through 3, Model No. S16R-PTA, (Subject to P-117-0207, P-117-0208, P-117-0209, 40 CFR Part 63 Subpart ZZZZ, RCSA §22a-174-22e)

##### 1. Fuel Consumption

###### a. Limitation or Restriction

Maximum No. 2 fuel oil consumption over any consecutive 12 month period shall not exceed 295,000 gallons for each unit in GEU-6. [P-117-0207; P-117-0208; P-117-0209]

###### b. Monitoring and Testing Requirements

The Permittee shall continuously monitor fuel consumption for each unit in GEU-6 using a fuel meter. [P-117-0207; P-117-0208; P-117-0209]

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#### c. Record Keeping Requirements

The Permittee shall keep records of monthly and consecutive 12 month fuel consumption for each unit in GEU-6. The consecutive 12 month fuel consumption shall be determined by adding the current month's fuel consumption for each unit in GEU-6 to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0207; P-117-0208; P-117-0209]

#### d. Reporting Requirements

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. [RCSA §22a-174-33(j)(1)(X)]

## 2. Maximum Fuel Sulfur Content

#### a. Limitation or Restriction

The maximum oil sulfur content shall not exceed 0.0015% by weight, dry basis. [RCSA §22a-174-19b]

#### b. Monitoring and Testing Requirements

The Permittee shall maintain a certification from the fuel supplier as described in Section III.C.2.c of this Title V permit. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### c. Record Keeping Requirements

The Permittee shall keep records of the fuel certification for each delivery of fuel oil 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. [P-117-0207; P-117-0208; P-117-0209]

#### d. Reporting Requirements

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. [RCSA §22a-174-33(j)(1)(X)]

## 3. PM<sub>10</sub>/PM<sub>2.5</sub>

#### a. Limitation or Restriction

i. The Permittee shall not cause or allow each unit in GEU-6 to exceed the following short term emission limits. The short term emission limits do not apply during periods of startup, shutdown and routine maintenance, unless otherwise noted.

(A) PM<sub>10</sub>/PM<sub>2.5</sub>:  $\leq 1.46 \text{ lb/hr}$  [P-117-0207; P-117-0208; P-117-0209]

(B) PM<sub>10</sub>/PM<sub>2.5</sub>:  $\leq 0.1 \text{ lb/MMBtu}$  [RCSA §22a-174-18(e)(1)]

ii. Total emissions per 12 consecutive months shall not exceed the following for each unit in GEU-6: [P-117-0207; P-117-0208; P-117-0209]

PM<sub>10</sub>/PM<sub>2.5</sub>:  $\leq 1.70 \text{ tpy}$

#### b. Monitoring and Testing Requirements

i. Demonstration of compliance with the emission limits in Section III.C.3.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following source. [P-117-0207; P-117-0208; P-117-0209]:

Most current DEEP-approved stack test data

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.C.3.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0207; P-117-0208; P-117-0209]

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#### c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month PM<sub>10</sub>/PM<sub>2.5</sub> emissions in units of tons for each unit. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation in Section III.C.3.a.ii of this Title V permit.

[P-117-0207; P-117-0208; P-117-0209]

#### d. Reporting Requirements

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. [RCSA §22a-174-33(j)(1)(X)]

### 4. SO<sub>2</sub>

#### a. Limitation or Restriction

- i. The Permittee shall not cause or allow each unit in GEU-6 to exceed the following short term emission limits. The short term emission limits do not apply during periods of startup, shutdown and routine maintenance, unless otherwise noted. [P-117-0207; P-117-0208; P-117-0209]  
≤ 0.85 lb/hr
- ii. Total emissions per 12 consecutive months shall not exceed the following for each unit in GEU-6:  
[P-117-0207; P-117-0208; P-117-0209]  
≤ 1.06 tpy

#### b. Monitoring and Testing Requirements

- i. Demonstration of compliance with the emission limits in Section III.C.4.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following source.  
[P-117-0207; P-117-0208; P-117-0209]:  
Compilation of Air Pollutant Emission Factors, AP-42, fifth edition, Section 3.4, October 1996.
- ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.C.4.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0207; P-117-0208; P-117-0209]

#### c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month SO<sub>2</sub> emissions in units of tons for each unit. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation in Section III.C.4.a.ii of this Title V permit. [P-117-0207; P-117-0208; P-117-0209]

#### d. Reporting Requirements

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. [RCSA §22a-174-33(j)(1)(X)]

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

#### a. Limitation or Restriction

- i. The Permittee shall not cause or allow each unit in GEU-6 to exceed the following short term emission limits. The short term emission limits do not apply during periods of startup, shutdown and routine maintenance, unless otherwise noted.  
(A) ≤ 5.30 lb/hr [P-117-0207; P-117-0208; P-117-0209]

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- (B) ≤ 0.323 lb/MMBtu, 24 hour block average [P-117-0207; P-117-0208; P-117-0209]
  - (C) ≤ 1.5 g/bk hp-hr, daily block average [RCSA §22a-174-22e]
- ii. Total emissions per 12 consecutive months shall not exceed the following for each unit in GEU-6:
  - [P-117-0207; P-117-0208; P-117-0209]
  - ≤ 6.63 tpy
- iii. Total annual NO<sub>x</sub> emissions from EU-1 and GEU-6, inclusively, shall not exceed 121.5 tons per year.
  - [P-117-0207; P-117-0208; P-117-0209]

b. *Monitoring and Testing Requirements*

- i. The Permittee shall install, calibrate, maintain, operate, and certify CEMS for measuring NO<sub>x</sub> and O<sub>2</sub> emissions discharged to the atmosphere, and shall record the output of the system. The Permittee shall comply with the CEMS requirements set forth in RCSA §22a-174-4a.
  - [P-117-0207; P-117-0208; P-117-0209; RCSA §22a-174-4a]
- ii. The averaging times shall be 24 hour block for the NO<sub>x</sub> CEMS and 1-hour block for the O<sub>2</sub> CEMS.
  - [P-117-0207; P-117-0208; P-117-0209]
- iii. Demonstration of compliance with the emission limits in Section III.C.5.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources:
  - [P-117-0207; P-117-0208; P-117-0209]

Most current CEMS data
- iv. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.C.5.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0207; P-117-0208; P-117-0209]
- v. The Permittee conduct an inspection and tune-up of the emissions unit a minimum of once per calendar year. Each subsequent tune-up shall be performed no earlier than 180 days after the previous tune-up was conducted. The inspection and tune-up shall be conducted according to the manufacturer's recommended procedures, or, if the manufacturer's recommendations are no longer available, according to best available practices. [RCSA §22a-174-22e(i)]
- vi. The commissioner may use data recorded by the NO<sub>x</sub> CEMs and any other records and reports to determine compliance with applicable requirements of RCSA §22a-174-22e.
  - [RCSA §22a-174-22e(l)(8)]
- vii. The Permittee shall collect quality assured CEMS data for all emission unit operating conditions. Data collection shall include periods of start-up or shutdown, monitoring system malfunctions, out-of-control periods, while conducting maintenance or repairs, and periods of required monitoring system quality assurance or quality control activities, such as calibration checks and required zero and span adjustments. [RCSA §22a-174-22e(m)(2)]
- viii. The Permittee shall conduct any performance or quality assurance testing in accordance with a testing protocol approved by the commissioner. [RCSA §22a-174-22e(m)(4)]

c. *Record Keeping Requirements*

- i. The Permittee shall keep records of the inspection and maintenance of the engine, SCR and oxidation catalysts. The records shall include the name of the inspector, the date, the results or actions and the date the catalyst is replaced. [P-117-0207; P-117-0208; P-117-0209]
- ii. The Permittee shall keep monthly and annual records of all fuel used, continuous emissions monitoring, and operating hours for each unit in GEU-6. [RCSA §22a-174-22e(j)(2)(D)]
- iii. The Permittee shall keep records of all tune-ups, repairs, replacement of parts and other maintenance for the units in GEU-6. [RCSA §22a-174-22e(j)(2)(E)]
- iv. The Permittee shall keep copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(F)]

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- v. The Permittee shall keep all charts, electronically stored data, and printed records produced by the NO<sub>x</sub> CEMS. [RCSA §22a-174-22e(j)(2)(D)]
- vi. The Permittee shall keep records of all performance evaluations, calibration checks and adjustments on the NO<sub>x</sub> CEMS; a record of maintenance procedures; and all data necessary to complete the quarterly reports required under Section III.C.5.d.iii of this Title V permit. [RCSA §22a-174-22e(j)(2)(D)]
- vii. The Permittee shall keep any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(G)]
- viii. The Permittee shall calculate and record the monthly and consecutive 12 month NO<sub>x</sub> emissions in units of tons for each unit. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation in Section III.C.5.a.ii of this Title V permit. [P-117-0207; P-117-0208; P-117-0209]
- ix. The Permittee shall maintain monthly and consecutive 12 month actual NO<sub>x</sub> emissions from EU-1 and GEU-6 combined. The combined consecutive 12 month actual NO<sub>x</sub> emissions shall be determined by adding the current month's emissions to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0207; P-117-0208; P-117-0209; RCSA §22a-174-33(j)(1)(K)(ii)]

#### *d. Reporting Requirements*

- i. The Permittee shall notify the commissioner in writing at least 30 days prior to conducting any performance or quality assurance testing of any such monitor. [RCSA §22a-174-22e(m)(4)]
- ii. Within 60 days of the completion of certification tests conducted on the NO<sub>x</sub> CEMS, the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22e(k)(2)]
- iii. The Permittee shall submit to the commissioner written quarterly reports of excess emissions and CEMS malfunctions. Such reports shall be submitted to the commissioner on or before January 30, April 30, July 30, and October 30 and shall include data for the three calendar month period ending the month before the due date of the report. For each period of excess emissions, such report shall include the date and time of commencement and completion of such period, the magnitude and suspected cause of the excess emissions and all actions taken to correct the excess emissions. For each malfunction of the CEMS, such report shall include the date and time of when the malfunction commenced and ended, and all actions taken to correct the malfunction. [RCSA §22a-174-22e(k)(3)]
- iv. 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. [RCSA §22a-174-33(j)(1)(X)]

## 6. VOC/HC

#### *a. Limitation or Restriction*

- i. The Permittee shall not cause or allow each unit in GEU-6 to exceed the following short term emission limits. The short term emission limits do not apply during periods of startup, shutdown and routine maintenance, unless otherwise noted. [P-117-0207; P-117-0208; P-117-0209]  
≤ 0.25 lb/hr
- ii. Total emissions per 12 consecutive months shall not exceed the following for each unit in GEU-6: [P-117-0207; P-117-0208; P-117-0209]  
≤ 0.32 tpy

#### *b. Monitoring and Testing Requirements*

- i. Demonstration of compliance with the emission limits in Section III.C.6.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following source.

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[P-117-0207; P-117-0208; P-117-0209]:

Manufacturer's data.

- ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.C.6.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0207; P-117-0208; P-117-0209]
- c. *Record Keeping Requirements*

The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons for each unit. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation in Section III.C.6.a.ii of this Title V permit. [P-117-0207; P-117-0208; P-117-0209]

- d. *Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

## 7. CO

- a. *Limitation or Restriction*

- i. The Permittee shall not cause or allow each unit in GEU-6 to exceed the following short term emission limits. The short term emission limits do not apply during periods of startup, shutdown and routine maintenance, unless otherwise noted. [P-117-0207; P-117-0208; P-117-0209]  
≤ 1.01 lb/hr
- ii. Total emissions per 12 consecutive months shall not exceed the following for each unit in GEU-6: [P-117-0207; P-117-0208; P-117-0209]  
≤ 1.26 tpy

- b. *Monitoring and Testing Requirements*

- i. Demonstration of compliance with the emission limits in Section III.C.7.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following source. [P-117-0207; P-117-0208; P-117-0209]:  
Most current DEEP approved stack test data.
- ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.C.7.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0207; P-117-0208; P-117-0209]

- c. *Record Keeping Requirements*

The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons for each unit. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation in Section III.C.7.a.ii of this Title V permit. [P-117-0207; P-117-0208; P-117-0209]

- d. *Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

## 8. Ammonia, SCR and Oxidation Catalyst

- a. *Limitation or Restriction*

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The Permittee shall not cause or allow each unit in GEU-6 to exceed 10 ppm ~~and @ 5% O<sub>2</sub>~~ of ammonia. This short term emission limit does not apply during periods of startup, shutdown and routine maintenance, unless otherwise noted. [P-117-0207; P-117-0208; P-117-0209]

*b. Monitoring and Testing Requirements*

- i. Demonstration of compliance with the ammonia emission limit in Section III.C.8.a of this Title V permit shall be met by calculating the emission rates using emission factors from the most current DEEP-approved stack test data. [P-117-0207; P-117-0208; P-117-0209]
- ii. The Permittee shall continuously monitor the SCR aqueous ammonia injection rate (lb/hr or gal/hr), operating temperature (°F) and the pressure drop (inches of water) across the catalyst bed. The Permittee shall maintain these parameters within the ranges recommended by the manufacturer to achieve compliance with the emission limits in Section III.C.8.a of this Title V permit. [P-117-0207; P-117-0208; P-117-0209]
- iii. The Permittee shall continuously monitor the oxidation catalyst inlet temperature (°F). The Permittee shall maintain this parameter within the ranges recommended by the manufacturer to achieve compliance with the emission limits in Section III.C.8 of this Title V permit. [P-117-0207; P-117-0208; P-117-0209]
- iv. The Permittee shall properly operate the control equipment at all times that the units in GEU-6 are in operation and emitting air pollutants. [P-117-0207; P-117-0208; P-117-0209]
- v. The Permittee shall perform inspections of the control devices as recommended by the manufacturer. [P-117-0207; P-117-0208; P-117-0209]

*c. Record Keeping Requirements*

- i. The Permittee shall continuously record the SCR aqueous ammonia injection rate (lb/hr or gal/hr), operating temperature (°F) and the pressure drop (inches of water) across the catalyst bed. The Permittee shall maintain these parameters within the ranges recommended by the manufacturer to achieve compliance with the emission limits in Section III.C.8.a of this Title V permit. [P-117-0207; P-117-0208; P-117-0209]
- ii. The Permittee shall continuously record the oxidation catalyst inlet temperature (°F). The Permittee shall maintain this parameter within the ranges recommended by the manufacturer to achieve compliance with the emission limits in Section III.C.8 of this Title V permit. [P-117-0207; P-117-0208; P-117-0209]
- iii. The Permittee shall keep records of each delivery of aqueous ammonia. The records shall include the date of delivery, the name of the supplier, the quantity of aqueous ammonia delivered, and the percentage of ammonia in solution, by weight. [P-117-0207; P-117-0208; P-117-0209]

*d. Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

### 9. Startup, Shutdown and Malfunction

*a. Limitation or Restriction*

- i. Definitions and Durations [P-117-0207; P-117-0208; P-117-209]:
  - (A) A hot start shall be defined as startup when the emissions unit has been down for less than 8 hours. The duration of a hot start shall not exceed 60 minutes.
  - (B) A warm start shall be defined as startup when the emissions unit has been down for 8 or more hours but less than 24 hours. The duration of a warm start shall not exceed 60 minutes.
  - (C) A cold start shall be defined as startup when the emissions unit has been down for 24 or more hours. The duration of a cold start shall not exceed 240 minutes.

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(D) The duration of a shutdown shall not exceed 30 minutes.

*b. Monitoring and Testing Requirements*

- i. The Permittee shall minimize emissions during periods of startup and shutdown by the following work practices and time constraints [P-117-0207; P-117-0208; P-117-0209]:
  - (A) Start the ammonia injection as soon as minimum catalyst temperature is reached; and
  - (B) The oxidation catalyst will not be bypassed during startup or shutdown.

*c. Record Keeping Requirements*

The Permittee shall make and maintain the following records:

- i. Records of the occurrence and duration of any startup, shutdown or malfunction in the operation of the emissions units; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. Such records shall contain the following information: [P-117-0207; P-117-0208; P-117-0209]
  - (A) type of event (hot, warm or cold startup, shutdown or malfunction);
  - (B) equipment affected;
  - (C) date of event;
  - (D) duration of event (minutes);
  - (E) fuel being used during the event; and
  - (F) total NO<sub>x</sub> emissions emitted (lb) during the event.

*d. Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

### 10. Operation and Maintenance Requirements

The Permittee shall operate and maintain the units in GEU-6 in accordance with the manufacturer's specifications and written recommendations.

### 11. 40 CFR Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [Federal]

The Permittee shall comply with Section III.C.11 of this Title V permit and any other applicable requirements of 40 CFR Part 63 Subpart ZZZZ for each unit in GEU-6. (Engine Classification: Existing Non-Emergency Compression Ignition RICE greater than 500 HP-constructed before June 12, 2006 at an area source)

*a. Limitation or Restriction*

- i. For each unit in GEU-6, CO emissions shall not exceed 23 ppmvd @ 15% O<sub>2</sub> or the Permittee shall reduce CO emissions by 70% or more.  
[40 CFR §63.6603(a); 40 CFR Part 63 Subpart ZZZZ, Table 2d]
- ii. The Permittee shall maintain the oxidation catalyst for each unit in GEU-6 so that the pressure drop across each catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test.  
[40 CFR §63.6603(a); 40 CFR Part 63 Subpart ZZZZ, Table 2b]
- iii. The Permittee shall maintain the temperature of the exhaust for each unit in GEU-6 so that the oxidation catalyst inlet temperature is greater than or equal to 450°F and less than or equal to 1350°F. The Permittee may petition the Administrator pursuant to the requirements of 40 CFR §63.8(f) for operating within a different temperature range.  
[40 CFR §63.6603(a); 40 CFR Part 63 Subpart ZZZZ, Table 2b]

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#### *b. Monitoring and Testing Requirements*

- i. The Permittee shall, at all times, operate and maintain GEU-6, 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 40 CFR Part 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)]
- ii. The Permittee shall operate and maintain the oxidation catalyst inlet temperature CPMS according to the requirements in 40 CFR §§63.6625(b)(1) through (6). [40 CFR §63.6625(b)]
- iii. 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 in Section III.C.11.a.i of this Title V permit apply. [40 CFR §63.6625(h); 40 CFR Part 63 Subpart ZZZZ, Table 2d]
- iv. The Permittee shall monitor and collect data according to 40 CFR §63.6635. [40 CFR §63.6635(a)]
- v. The Permittee shall conduct performance tests for CO every 8,760 hours or 3 years, whichever comes first to demonstrate that each unit in GEU-6 complies with Section III.C.11.a.i of this Title V permit. [40 CFR §63.6640(a); 40 CFR Part 63 Subpart ZZZZ, Tables 3 & 6]
- vi. The Permittee shall collect the catalyst inlet temperature data according to 40 CFR §63.6625(b) and reducing this data to 4-hour rolling averages. The Permittee shall maintain the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature. [40 CFR §63.6640(a); 40 CFR Part 63 Subpart ZZZZ, Table 6]
- vii. The Permittee shall measure the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test. [40 CFR §63.6640(a); 40 CFR Part 63 Subpart ZZZZ, Table 6]
- viii. The Permittee shall reestablish the values of the operating parameters measured during the initial performance test if the oxidation catalyst is changed. When the Permittee reestablishes the values of the operating parameters, the Permittee must also conduct a performance test to demonstrate that the Permittee is meeting the emission limitation in Section III.C.11.a.i of this Title V permit. [40 CFR §63.6640(b)]
- ix. The Permittee shall comply with any monitoring or testing requirements of the General Provisions listed in 40 CFR Part 63 Subpart ZZZZ, Table 8 that apply. [40 CFR §63.6665]

#### *c. Record Keeping Requirements*

- i. The Permittee must keep a copy of each notification and report that was submitted to comply with 40 CFR Part 63 Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirement in 40 CFR §63.10(b)(2)(xiv). [40 CFR §63.6655(a)(1)]
- ii. The Permittee shall 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 keep records of performance tests and performance evaluations as required in 40 CFR §63.10(b)(2)(viii). [40 CFR §63.6655(a)(3)]
- iv. The Permittee shall keep records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR §63.6655(a)(4)]
- v. The Permittee shall 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.

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[40 CFR §63.6655(a)(5)]

- vi. The Permittee shall keep the following records for the oxidation catalyst inlet temperature CPMS:
  - (A) Records described in 40 CFR §§63.10(b)(2)(vi) through (xi);
  - (B) Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR §63.8(d)(3); and
  - (C) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 CFR §63.8(f)(6)(i), if applicable. [40 CFR §63.6655(b)]
- vii. The Permittee shall keep records of the catalyst inlet temperature and pressure drop across the catalyst as required to be monitored in Sections III.C.5.b.vi and vii of this Title V permit.  
[40 CFR §63.6655(d)]
- viii. The Permittee shall comply with any record keeping requirements of the General Provisions listed in 40 CFR Part 63 Subpart ZZZZ, Table 8 that apply. [40 CFR §63.6665]

#### d. Reporting Requirements

- i. The Permittee must report each instance in which the Permittee did not meet each emission limitation or operating limitation in Section III.C.11.a of this Title V permit. These instances are deviations from the emission and operating limitations. These deviations must be reported according to the requirements in 40 CFR §63.6650. [40 CFR §63.6640(b)]
- ii. The Permittee must submit all notifications as required in 40 CFR §63.6645. [40 CFR §63.6645]
- iii. The Permittee shall submit semi-annual compliance reports according to the requirements specified in 40 CFR §63.6650(b) and shall contain the information in 40 CFR §§63.6650(c)(1) through (6).  
[40 CFR §§63.6650(b) and (c); 40 CFR Part 63 Subpart ZZZZ, Table 7]
- iv. The Permittee shall comply with any reporting requirements of the General Provisions listed in 40 CFR Part 63 Subpart ZZZZ, Table 8 that apply. [40 CFR §63.6665]
- v. 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. [RCSA §22a-174-33(j)(1)(X)]

### D. GROUPED EMISSIONS UNIT 14 (GEU-14) - Onan Emergency Diesel Generator Set Model No.

NTA855A-G2 [17 Hillhouse Ave.] and Cummins Diesel Emergency Generator Model No. NTATA855G2 [Police Station] (Subject to RCSA §§22a-174-3b(e) and -22e)

#### 1. Maximum Operating Hours

##### a. Limitation or Restriction

- i. Maximum operating hours for each unit in GEU-14 shall not be greater than 300 hours during any 12 month rolling aggregate and each engine shall be operated only during periods of testing and scheduled maintenance or during an emergency as defined in RCSA §22a-174-22e.  
[RCSA §22a-174-3b(e)(2)(A)]
- ii. The Permittee shall not operate the emergency engines for routine, scheduled testing or maintenance on any day for which the commissioner has forecast that ozone levels will be "moderate to unhealthy for sensitive groups" or greater. If, subsequent to the initial forecast of "moderate to unhealthy for sensitive groups" or greater, the forecast is revised to "moderate" or lower, the Permittee is no longer prohibited from operating the engine for routine, scheduled testing or maintenance for the remainder of that day. The Permittee may rely on an ozone forecast of "moderate" or lower obtained after 3 p.m. on the preceding day. Subsequent changes to the ozone forecast after 3 p.m. that forecast ozone levels of "moderate to unhealthy for sensitive groups" or greater shall not obligate the Permittee to refrain from operation of the emergency engines at the facility on the following day. [RCSA §22a-174-22e(d)(14)]

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#### *b. Monitoring and Testing Requirements*

The Permittee shall monitor hours of operation for each unit in GEU-14 each month and each twelve (12) month rolling aggregate. [RCSA §22a-174-3b(e)(4)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall maintain records of hours of operation for each unit in GEU-14 on a monthly basis and a 12 month rolling aggregate. Maximum annual operating hours shall be based on any consecutive 12 month time period and shall be determined by adding each month's operating hours to that of the previous 11 months. [RCSA §22a-174-3b(e)(4)]
- ii. The Permittee shall keep records of total monthly operating hours of each unit in GEU-14, identifying the dates and operating hours of emergency and non-emergency use. [RCSA §22a-174-22e(j)(2)(A)]
- iii. The Permittee shall keep records for each unit in GEU-14 of all tune-ups, repairs, replacement of parts and other maintenance. [RCSA §22a-174-22e(j)(2)(B)]
- iv. The Permittee shall keep copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(F)]
- v. The Permittee shall keep any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(G)]

#### *d. Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

## **2. Maximum Fuel Sulfur Content**

#### *a. Limitation or Restriction*

For any nongaseous fuel consumed in each engine in GEU-14, the Permittee shall comply with the fuel sulfur content requirements of RCSA §22a-174-19b(d)(2) of the Regulations of Connecticut State Agencies. [RCSA §22a-174-3b(e)(2)(B)]

#### *b. Monitoring Requirements*

The Permittee shall monitor the sulfur content for the fuel burned by keeping the records specified in Section III.D.2.c of this Title V permit. [RCSA §22a-174-3b(e)(3)]

#### *c. Record Keeping Requirements*

The Permittee shall keep records of the sulfur content of the fuel combusted and the quantity purchased for combustion. A written certification or a written contract with a fuel supplier is sufficient to satisfy this requirement if the certification or contract identifies: [RCSA §22a-174-3b(h); RCSA §22a-174-19b(g)(3)]

- i. The name of the fuel seller;
- ii. The type of fuel purchased;
- iii. The sulfur content of the fuel purchased; and
- iv. The method used to determine the sulfur content of the fuel purchased.

#### *d. Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

## **E. GROUPED EMISSIONS UNIT 2 (GEU-2) - Cleaver Brooks Boiler Model No. CB700-200 and Cleaver Brooks Boiler Model No. FLX [Divinity School] (Subject to RCSA §22a-174-22e)**

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

#### *a. Limitation or Restriction*

NO<sub>x</sub> emissions for each unit in GEU-2 shall not exceed 0.20 lb/MMBtu. [RCSA §22a-174-22e(d)(3)]

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#### *b. Monitoring and Testing Requirements*

The Permittee shall conduct emission testing within 63 months from the date of the previous test or from the date the previous test was due, whichever is earlier for each unit in GEU-2. Each such emission test shall be conducted in accordance with RCSA §22a-174-5. Compliance with the emission limitations of Section III.E.1.a of this Title V permit shall be determined based on the average of three one-hour tests, each performed over a consecutive 60-minute period. Any analysis of nitrogen content conducted as part of such emission testing shall be in accordance with Method D-3228 of the American Society for the Testing of Materials. If the commissioner determines that three one-hour tests are not reasonable given the location, configuration or operating conditions of a stationary source, the commissioner may approve testing where compliance with the emission limitations of Section III.E.1.a of this Title V permit shall be determined based on the average of test runs shorter than a one-hour period. The Permittee shall demonstrate compliance using sampling and analytical procedures as required by RCSA §22a-174-22e(l). [RCSA §22a-174-22e(l)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall keep records of all tune-ups, repairs, replacement of parts and other maintenance for each unit in GEU-2. [RCSA §22a-174-22e(j)(2)(B)]
- ii. The Permittee shall keep copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(F)]
- iii. The Permittee shall keep records of the dates, times, and places of all emission testing required by Section III.E.1.b of this Title V permit, 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-174-22e(j)(2)(C)]
- iv. The Permittee shall keep any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(G)]

#### *d. Reporting Requirements*

- i. Not more than 60 days from the completion of emission tests conducted under the requirements of Section III.E.1.b of this Title V permit, the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22e(k)(1)]
- ii. 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. [RCSA §22a-174-33(j)(1)(X)]

### **F. GROUPED EMISSIONS UNIT 8 (GEU-8) - Caterpillar Diesel Emergency Generator, Model No. 3516C [CPP] and Cummins Emergency Generator Model No. QSX15-G9 [55 Lock St.] (Subject to RCSA §§22a-174-3b(e) and -22e, 40 CFR Part 60 Subpart IIII)**

#### **1. Maximum Operating Hours**

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

- i. Maximum operating hours for each unit in GEU-8 shall not be greater than 300 hours during any 12 month rolling aggregate and each engine shall be operated only during periods of testing and scheduled maintenance or during an emergency as defined in RCSA §22a-174-22e. [RCSA §22a-174-3b(e)(2)(A)]
- ii. In accordance with RCSA §22a-174-22e(c)(3)(B), GEU-8 is not subject to RCSA §22a-174-22e(d)(14). [RCSA §22a-174-22e(c)(3)(B)]

##### *b. Monitoring and Testing Requirements*

The Permittee shall monitor hours of operation for each unit in GEU-8 each month and each twelve (12) month rolling aggregate. [RCSA §22a-174-3b(e)(4)]

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- c. *Record Keeping Requirements*
  - i. The Permittee shall maintain records of hours of operation for each unit in GEU-8 on a monthly basis and a 12 month rolling aggregate. Maximum annual operating hours shall be based on any consecutive 12 month time period and shall be determined by adding each month's operating hours to that of the previous 11 months. [RCSA §22a-174-3b(e)(4)]
  - ii. The Permittee shall keep records of total monthly operating hours of each unit in GEU-8, identifying the dates and operating hours of emergency and non-emergency use. [RCSA §22a-174-22e(j)(2)(A)]
  - iii. The Permittee shall keep records for each unit in GEU-8 of all tune-ups, repairs, replacement of parts and other maintenance. [RCSA §22a-174-22e(j)(2)(B)]
  - iv. The Permittee shall keep copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(F)]
  - v. The Permittee shall keep any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(G)]
- d. *Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

**2. Maximum Fuel Sulfur Content**

- a. *Limitation or Restriction*

For any nongaseous fuel consumed in each engine in GEU-8, the Permittee shall comply with the fuel sulfur content requirements of RCSA §22a-174-19b(d)(2) of the Regulations of Connecticut State Agencies. [RCSA §22a-174-3b(e)(2)(B)]
- b. *Monitoring Requirements*

The Permittee shall monitor the sulfur content for the fuel burned by keeping the records specified in Section III.F.2.c of this Title V permit. [RCSA §22a-174-3b(e)(3)]
- c. *Record Keeping Requirements*

The Permittee shall keep records of the sulfur content of the fuel combusted and the quantity purchased for combustion. A written certification or a written contract with a fuel supplier is sufficient to satisfy this requirement if the certification or contract identifies:  
[RCSA §22a-174-3b(h); RCSA §22a-174-19b(g)(3)]

  - i. The name of the fuel seller;
  - ii. The type of fuel purchased;
  - iii. The sulfur content of the fuel purchased; and
  - iv. The method used to determine the sulfur content of the fuel purchased.
- d. *Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

**3. 40 CFR Part 60 Subpart III – Standard of Performance for Stationary Compression Ignition Internal Combustion Engines [Federal]**

- a. *Limitation or Restriction*
  - i. The Permittee shall comply with the emission standards for new nonroad compression ignition engines in 40 CFR §60.4202, for all pollutants, for the same model year and maximum engine power for each unit in GEU-8. [40 CFR §60.4205(b)]
  - ii. The Permittee shall operate and maintain each unit in GEU-8 to achieve the emission standards as

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required in 40 CFR §60.4205 over the entire life of the engine. [40 CFR §60.4206]

- iii. 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)]
- iv. If any unit in GEU-8 does not meet the standards applicable to non-emergency engines as specified in Section III.F.3.a of this Title V permit, the Permittee must install a non-resettable hour meter prior to startup of the engine. [40 CFR §60.4209(a)]
- v. The Permittee shall do all of the following, except as permitted under Section III.F.3.a.vii of this Title V permit [40 CFR §60.4211(a)]:
  - (A) Operate and maintain the stationary combustion ignition internal combustion engine and control device according to the manufacturer's emission-related written instructions;
  - (B) Change only those emission-related settings that are permitted by the manufacturer; and
  - (C) Meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as they apply.
- vi. The Permittee shall ensure each unit in GEU-8 is certified to the emission standards in 40 CFR §60.4205(b) for the same model year and maximum engine power. The engines shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in Section III.F.3.a.vii of this Title V permit. [40 CFR §60.4211(c)]
- vii. If the Permittee does not install, configure, operate, and maintain the engines in GEU-8 and control devices (if installed) 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 shall demonstrate compliance by following the requirements in 40 CFR §§60.4211(g)(1) through (3) based on the size of the engine. [40 CFR §60.4211(g)]
- viii. The Permittee must operate the engines in GEU-8 according to the requirements in 40 CFR §§60.4211(f)(1) through (3). In order for each engine to be considered an emergency stationary ICE under 40 CFR Part 60 Subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR §§60.4211(f)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in 40 CFR §§60.4211(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR Part 60 Subpart IIII and must meet all requirements for non-emergency engines. [40 CFR §60.4211(f)]

*b. Monitoring Requirements*

The Permittee shall comply with all monitoring and testing requirements of the General Provisions in 40 CFR §§60.1 through 60.19, inclusive, as specified in 40 CFR Part 60 Subpart IIII, Table 8. [40 CFR §60.4218]

*c. Record Keeping Requirements*

The Permittee shall make and keep the following records:

- i. Starting with the model years in 40 CFR Part 60 Subpart IIII, Table 5, if the any unit in GEU-8 does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee must record the time of operation of the engine and the reason the engine was in operation during that time. (The model year for EU-201 predates those listed in 40 CFR Part 60 Subpart IIII, Table 5. Therefore, these record keeping requirements do not apply to EU-201.) [40 CFR §60.4214(b)]
- ii. The Permittee shall comply with all record keeping requirements of the General Provisions in 40 CFR §§60.1 through 60.19, inclusive, as specified in 40 CFR Part 60 Subpart IIII, Table 8. [40 CFR §60.4218]
- iii. The Permittee shall maintain appropriate records indicating compliance with the emission limitation and operational requirements in Sections III.F.3.a of this Title V permit. Such records may include,

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but are not limited to, manufacturer's specifications and operating recommendations, purchase records and internal operating procedures. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### *d. Reporting Requirements*

- i. The Permittee shall comply with all reporting requirements of the General Provisions in 40 CFR §§60.1 through 60.19, inclusive, as specified in 40 CFR Part 60 Subpart III, Table 8. [40 CFR §60.4218]
- ii. 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. [RCSA §22a-174-33(j)(1)(X)]

## **G. EMISSIONS UNIT 200 (EU-200) - Cummins Emergency Generator Model No. LTA-10G1 [1022 Chapel St.] (Subject to RCSA §22a-174-3b(e))**

### **1. Maximum Operating Hours**

#### *a. Limitation or Restriction*

Maximum operating hours shall not be greater than 300 hours during any 12 month rolling aggregate and each engine shall be operated only during periods of testing and scheduled maintenance or during an emergency as defined in RCSA §22a-174-22e. [RCSA §22a-174-3b(e)(2)(A)]

#### *b. Monitoring and Testing Requirements*

The Permittee shall monitor hours of operation each month and each twelve (12) month rolling aggregate. [RCSA §22a-174-3b(e)(4)]

#### *c. Record Keeping Requirements*

The Permittee shall make and keep records of hours of operation on a monthly basis and a 12 month rolling aggregate. Maximum annual operating hours shall be based on any consecutive 12 month time period and shall be determined by adding each month's operating hours to that of the previous 11 months.

[RCSA §22a-174-3b(e)(4)]

#### *d. Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

### **2. Maximum Fuel Sulfur Content**

#### *a. Limitation or Restriction*

For any nongaseous fuel consumed, the Permittee shall comply with the fuel sulfur content requirements of RCSA §22a-174-19b(d)(2) of the Regulations of Connecticut State Agencies.

[RCSA §22a-174-3b(e)(2)(B)]

#### *b. Monitoring Requirements*

The Permittee shall monitor the sulfur content for the fuel burned by keeping the records specified in Section III.G.2.c of this Title V permit. [RCSA §22a-174-3b(e)(3)]

#### *c. Record Keeping Requirements*

The Permittee shall keep records of the sulfur content of the fuel combusted and the quantity purchased for combustion. A written certification or a written contract with a fuel supplier is sufficient to satisfy this requirement if the certification or contract identifies: [RCSA §22a-174-3b(h); RCSA §22a-174-19b(g)(3)]

- i. The name of the fuel seller;
- ii. The type of fuel purchased;
- iii. The sulfur content of the fuel purchased; and
- iv. The method used to determine the sulfur content of the fuel purchased.

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#### *d. Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

#### **H. GROUPED EMISSIONS UNIT 15 (GEU-15) - Cummins Emergency Generator Model No. DGFC-580102 [67-81 Howe St.], Kohler/John Deere Emergency Generator [2 Whitney Ave.], Cummins Emergency Generator [55 Whitney Ave.], and Caterpillar Emergency Generator Model D174 [Divinity School] (Subject to RCSA §22a-174-3b(e), 40 CFR Part 60 Subpart III)**

##### **1. Maximum Operating Hours**

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

i. Maximum operating hours for each unit in GEU-15 shall not be greater than 300 hours during any 12 month rolling aggregate and the engine shall be operated only during periods of testing and scheduled maintenance or during an emergency as defined in RCSA §22a-174-22e. [RCSA §22a-174-3b(e)(2)(A)]

###### *b. Monitoring and Testing Requirements*

The Permittee shall monitor hours of operation for each unit in GEU-15 each month and each twelve (12) month rolling aggregate. [RCSA §22a-174-3b(e)(4)]

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

The Permittee shall maintain records of hours of operation for each unit in GEU-15 on a monthly basis and a 12 month rolling aggregate. Maximum annual operating hours shall be based on any consecutive 12 month time period and shall be determined by adding each month's operating hours to that of the previous 11 months. [RCSA §22a-174-3b(e)(4)]

###### *d. Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

##### **2. Maximum Fuel Sulfur Content**

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

For any nongaseous fuel consumed in each engine in GEU-15, the Permittee shall comply with the fuel sulfur content requirements of RCSA §22a-174-19b(d)(2) of the Regulations of Connecticut State Agencies. [RCSA §22a-174-3b(e)(2)(B)]

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

The Permittee shall monitor the sulfur content for the fuel burned by keeping the records specified in Section III.H.2.c of this Title V permit. [RCSA §22a-174-3b(e)(3)]

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

The Permittee shall keep records of the sulfur content of the fuel combusted and the quantity purchased for combustion. A written certification or a written contract with a fuel supplier is sufficient to satisfy this requirement if the certification or contract identifies: [RCSA §22a-174-3b(h); RCSA §22a-174-19b(g)(3)]

- i. The name of the fuel seller;
- ii. The type of fuel purchased;
- iii. The sulfur content of the fuel purchased; and
- iv. The method used to determine the sulfur content of the fuel purchased.

###### *d. Reporting Requirements*

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

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is earlier. [RCSA §22a-174-33(j)(1)(X)]

#### 3. **40 CFR Part 60 Subpart III – Standard of Performance for Stationary Compression Ignition Internal Combustion Engines [Federal]**

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

- i. The Permittee shall comply with the emission standards for new nonroad compression ignition engines in 40 CFR §60.4202, for all pollutants, for the same model year and maximum engine power as each respective emission unit in GEU-15. [40 CFR §60.4205(b)]
- ii. The Permittee shall operate and maintain each unit in GEU-15 to achieve the emission standards as required in 40 CFR §60.4205 over the entire life of the engine. [40 CFR §60.4206]
- iii. 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)]
- iv. If any unit in GEU-15 does not meet the standards applicable to non-emergency engines as specified in Section III.H.3.a of this Title V permit, the Permittee must install a non-resettable hour meter prior to startup of the engine. [40 CFR §60.4209(a)]
- v. The Permittee shall do all of the following, except as permitted under Section III.H.3.a.vii of this Title V permit:
  - (A) Operate and maintain the stationary combustion ignition internal combustion engine and control device according to the manufacturer's emission-related written instructions;
  - (B) Change only those emission-related settings that are permitted by the manufacturer; and
  - (C) Meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as they apply. [40 CFR §60.4211(a)]
- vi. The Permittee shall ensure each unit in GEU-15 is certified to the emission standards in 40 CFR §60.4205(b) for the same model year and maximum engine power. The engines shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in Section III.H.3.a.vii of this Title V permit. [40 CFR §60.4211(c)]
- vii. If the Permittee does not install, configure, operate, and maintain each unit in GEU-15 and control devices (if installed) 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 shall demonstrate compliance by following the requirements in 40 CFR §§60.4211(g)(1) through (3) based on the size of the engine. [40 CFR §60.4211(g)]
- viii. The Permittee must operate each unit in GEU-15 according to the requirements in 40 CFR §§60.4211(f)(1) through (3). In order the engine to be considered an emergency stationary ICE under 40 CFR Part 60 Subpart III, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR §§60.4211(f)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in 40 CFR §§60.4211(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR Part 60 Subpart III and must meet all requirements for non-emergency engines. [40 CFR §60.4211(f)]

##### *b. Monitoring Requirements*

The Permittee shall comply with all monitoring and testing requirements of the General Provisions in 40 CFR §§60.1 through 60.19, inclusive, as specified in 40 CFR Part 60 Subpart III, Table 8. [40 CFR §60.4218]

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

- i. The Permittee shall comply with all record keeping requirements of the General Provisions in 40 CFR §§60.1 through 60.19, inclusive, as specified in 40 CFR Part 60 Subpart III, Table 8. [40 CFR §60.4218]
- ii. The Permittee shall maintain appropriate records indicating compliance with the emission limitation and operational requirements in Sections III.H.3.a of this Title V permit. Such records may include,

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but are not limited to, manufacturer's specifications and operating recommendations, purchase records and internal operating procedures. [RSCA §22a-174-33(j)(1)(K)(ii)]

- d. Reporting Requirements*
  - i. The Permittee shall comply with all reporting requirements of the General Provisions in 40 CFR §§60.1 through 60.19, inclusive, as specified in 40 CFR Part 60 Subpart III, Table 8. [40 CFR §60.4218]
  - ii. 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. [RCSA §22a-174-33(j)(1)(X)]
- I. GROUPED EMISSIONS UNIT 13 (GEU-13) – Two Solar Taurus 70 Turbines Nos. 1 & 2 and Victory HRSG with Duct Burners, Cogeneration Facility, (Subject to P-117-0377, P-117-0378, RCSA §22a-174-22e, 40 CFR Part 60 Subpart KKKK**
- 1. Fuel Consumption**
  - a. Limitation or Restriction*
    - i. Maximum natural gas consumption over any consecutive 12 month period for turbines in GEU-13 combined: 1,605 MMcf [P-117-0377, P-117-0378]
    - ii. Maximum ULSD consumption over any consecutive 12 month period for turbines in GEU-13 combined: 1,255,098 gallons [P-117-0377, P-117-0378]
    - iii. Maximum natural gas consumption over any consecutive 12 month period for duct burners in GEU-13 combined: 1,209.4 MMcf [P-117-0377, P-117-0378]
  - b. Monitoring and Testing Requirements*

The Permittee shall use individual non-resettable totalizing fuel metering devices or billing meters to continuously monitor natural gas and ULSD fed to each turbine and natural gas fed to each duct burner. [P-117-0377, P-117-0378]
  - c. Record Keeping Requirements*

The Permittee shall keep records of monthly and consecutive 12 month fuel consumption for each turbine and each duct burner independently. The consecutive 12 month fuel consumption shall be determined by adding (for each fuel) the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0377, P-117-0378]
  - d. Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]
- 2. Maximum Fuel Sulfur Content**
  - a. Limitation or Restriction*
    - i. The maximum ULSD sulfur content shall not exceed 0.0015% by weight, dry basis. [P-117-0377, P-117-0378, RCSA §22a-174-19b(d)(3)]
    - ii. The Permittee shall not burn in any turbine any fuel which contains total potential sulfur emissions in excess of 0.06 lb/MMBtu heat input. This requirement shall be met when burning natural gas or ULSD. [40 CFR §60.4330(a)(2)]
  - b. Monitoring and Testing Requirements*

The Permittee shall maintain a certification from the fuel oil supplier as described in Section III.I.2.c of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

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#### c. Record Keeping Requirements

The Permittee shall make and keep records of the fuel certification for each delivery of ULSD 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. [P-117-0377, P-117-0378, 40 CFR §60.4365(a)]

#### d. Reporting Requirements

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. [RCSA §22a-174-33(j)(1)(X)]

### 3. PM/PM<sub>10</sub>/PM<sub>2.5</sub>, Opacity

#### a. Limitation or Restriction

i. The Permittee shall not cause or allow each unit in GEU-13 to exceed the following short term emission limits. These short term emission limits do not apply during periods of startup, shutdown and fuel switching, with the exception of PM/PM<sub>10</sub>/PM<sub>2.5</sub> lb/MMBtu limits, which apply at all times. [P-117-0377; P-117-0378, RCSA §22a-174-18(e)(1)]

##### (A) Turbine Operating on Natural Gas

- (1) PM (filterable)
  - (a) ≤ 1.37 lb/hr
  - (b) ≤ 0.015 lb/MMBtu
- (2) PM<sub>10</sub> (filterable and condensable)
  - (a) ≤ 1.37 lb/hr
  - (b) ≤ 0.015 lb/MMBtu
- (3) PM<sub>2.5</sub> (filterable and condensable)
  - (a) ≤ 1.37 lb/hr
  - (b) ≤ 0.015 lb/MMBtu

##### (B) Turbine Operating on ULSD

- (1) PM (filterable)
  - (a) ≤ 3.45 lb/hr
  - (b) ≤ 0.04 lb/MMBtu
- (2) PM<sub>10</sub> (filterable and condensable)
  - (a) ≤ 3.45 lb/hr
  - (b) ≤ 0.04 lb/MMBtu
- (3) PM<sub>2.5</sub> (filterable and condensable)
  - (a) ≤ 3.45 lb/hr
  - (b) ≤ 0.04 lb/MMBtu

##### (C) Turbine Operating on Natural Gas with Duct Burner on Natural Gas

- (1) PM (filterable)
  - (a) ≤ 1.99 lb/hr
  - (b) ≤ 0.013 lb/MMBtu
- (2) PM<sub>10</sub> (filterable and condensable)
  - (a) ≤ 1.99 lb/hr

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- (b)  $\leq 0.013 \text{ lb/MMBtu}$
- (3) PM<sub>2.5</sub> (filterable and condensable)
  - (a)  $\leq 1.99 \text{ lb/hr}$
  - (b)  $\leq 0.013 \text{ lb/MMBtu}$
- (D) Turbine Operating on ULSD with Duct Burner on Natural Gas
  - (1) PM (filterable)
    - (a)  $\leq 4.10 \text{ lb/hr}$
    - (b)  $\leq 0.03 \text{ lb/MMBtu}$
  - (2) PM<sub>10</sub> (filterable and condensable)
    - (a)  $\leq 4.10 \text{ lb/hr}$
    - (b)  $\leq 0.03 \text{ lb/MMBtu}$
  - (3) PM<sub>2.5</sub> (filterable and condensable)
    - (a)  $\leq 4.10 \text{ lb/hr}$
    - (b)  $\leq 0.03 \text{ lb/MMBtu}$
- ii. Total combined emissions per 12 consecutive months shall not exceed the following for GEU-13 combined:
  - [P-117-0377; P-117-0378]
  - (A) PM (filterable):  $\leq 19.6 \text{ tpy}$
  - (B) PM<sub>10</sub> (filterable and condensable):  $\leq 19.6 \text{ tpy}$
  - (C) PM<sub>2.5</sub> (filterable and condensable):  $\leq 19.6 \text{ tpy}$
- iii. The Permittee shall not cause or allow any unit in GEU-13 to exceed 10% opacity during any six minute block average as measured by 40 CFR 60, Appendix A, Reference Method 9.
- b. *Monitoring and Testing Requirements*
  - i. Demonstration of compliance with the emission limits in Section III.I.3.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources.
    - [P-117-0377; P-117-0378]:
    - (A) Turbine
      - PM/PM<sub>10</sub>/PM<sub>2.5</sub>: Solar Turbines Product Information Letter (PIL 171, Revision 3), June 1, 2012; stack test.
    - (B) Duct Burner
      - PM/PM<sub>10</sub>/PM<sub>2.5</sub>: Victory Energy emissions data; stack test;
  - ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.I.3.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0377; P-117-0378]
- c. *Record Keeping Requirements*

The Permittee shall calculate and record the monthly and consecutive 12 month PM<sub>10</sub>/PM<sub>2.5</sub> emissions in units of tons for each unit in GEU-13. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup, shutdown and fuel switching shall be counted towards the annual emission limitation in Section III.I.3.a.ii of this Title V permit.  
[P-117-0377; P-117-0378]
- d. *Reporting Requirements*

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days

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of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

#### 4. SO<sub>2</sub>

##### a. Limitation or Restriction

- i. The Permittee shall not cause or allow each unit in GEU-13 to exceed the following short term emission limits. These short term emission limits do not apply during periods of startup, shutdown and fuel switching. [P-117-0377; P-117-0378]
  - (A) Turbine Operating on Natural Gas  
 $\leq 0.31 \text{ lb/hr}$
  - (B) Turbine Operating on ULSD  
 $\leq 0.13 \text{ lb/hr}$
  - (C) Turbine Operating on Natural Gas with Duct Burner on Natural Gas  
 $\leq 0.35 \text{ lb/hr}$
  - (D) Turbine Operating on ULSD with Duct Burner on Natural Gas  
 $\leq 0.17 \text{ lb/hr}$
- ii. Total combined emissions per 12 consecutive months shall not exceed the following for GEU-13 combined:  
[P-117-0377; P-117-0378]  
 $\leq 3.1 \text{ tpy}$

##### b. Monitoring and Testing Requirements

- i. Demonstration of compliance with the emission limits in Section III.I.4.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources. [P-117-0377; P-117-0378]:
  - (A) Turbine  
AP-42, 5<sup>th</sup> Edition, Section 3.1, April 2000.
  - (B) Duct Burner  
AP-42, 5<sup>th</sup> Edition, Section 1.4, July 1998.
- ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.I.4.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0377; P-117-0378]

##### c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month SO<sub>2</sub> emissions in units of tons for each unit in GEU-13. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup, shutdown and fuel switching shall be counted towards the annual emission limitation in Section III.I.4.a.ii of this Title V permit.  
[P-117-0377; P-117-0378]

##### d. Reporting Requirements

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. [RCSA §22a-174-33(j)(1)(X)]

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

##### a. Limitation or Restriction

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- i. The Permittee shall not cause or allow each unit in GEU-13 to exceed the following short term emission limits. These short term emission limits do not apply during periods of startup, shutdown and fuel switching.
  - (A) Turbine Operating on Natural Gas
    - (1)  $\leq 0.67 \text{ lb/hr}$  [P-117-0377; P-117-0378]
    - (2)  $\leq 2.0 \text{ ppmvd}$  @ 15% O<sub>2</sub>, 24-hour rolling average [P-117-0377; P-117-0378]
    - (3)  $\leq 25.0 \text{ ppmvd}$  @ 15% O<sub>2</sub>, daily block average [RCSA §22a-174-22e(d)(5)(C)]
    - (4)  $\leq 25.0 \text{ ppmvd}$  @ 15% O<sub>2</sub>, 4-hour rolling average and 30 day rolling average [40 CFR 60 Subpart KKKK]
  - (B) Turbine Operating on ULSD
    - (1)  $\leq 2.01 \text{ lb/hr}$  [P-117-0377; P-117-0378]
    - (2)  $\leq 6.0 \text{ ppmvd}$  @ 15% O<sub>2</sub>, 24-hour rolling average [P-117-0377; P-117-0378]
    - (3)  $\leq 42 \text{ ppmvd}$  @ 15% O<sub>2</sub>, daily block average [RCSA §22a-174-22e(d)(5)(C)]
    - (4)  $\leq 74 \text{ ppmvd}$  @ 15% O<sub>2</sub>, 4-hour rolling average and 30 day rolling average [40 CFR 60 Subpart KKKK]
  - (C) Turbine Operating on Natural Gas with Duct Burner on Natural Gas [P-117-0377; P-117-0378]
    - (1)  $\leq 1.13 \text{ lb/hr}$
    - (2)  $\leq 2.0 \text{ ppmvd}$  @ 15% O<sub>2</sub>, 24-hour rolling average
  - (D) Turbine Operating on ULSD with Duct Burner on Natural Gas [P-117-0377; P-117-0378]
    - (1)  $\leq 3.44 \text{ lb/hr}$
    - (2)  $\leq 6.0 \text{ ppmvd}$  @ 15% O<sub>2</sub>, 24-hour rolling average
- ii. Total combined emissions per 12 consecutive months shall not exceed the following for GEU-13 combined: [P-117-0377; P-117-0378]  
 $\leq 12.2 \text{ tpy}$

*b. Monitoring and Testing Requirements*

- i. The Permittee shall collect quality assured CEMS data for all emission unit operating conditions. Data collection shall include periods of startup or shutdown, monitoring system malfunctions, out-of-control periods, while conducting maintenance or repairs, and periods of required monitoring system quality assurance or quality control activities, such as calibration checks and required zero and span adjustments. [RCSA §22a-22e(m)(2)]
- ii. The Permittee shall conduct any performance or quality assurance testing in accordance with a testing protocol approved by the commissioner. [RCSA §22a-174-22e(m)(4)]
- ii. The Permittee shall install, calibrate, maintain, operate, and certify CEMS for measuring NO<sub>x</sub> and O<sub>2</sub> emissions discharged to the atmosphere, and shall record the output of the system. The Permittee shall comply with the CEMS requirements as set forth in RCSA §22a-174-4a, RCSA §22a-174-22e, 40 CFR Part 60 Subpart KKKK. [P-117-0377; P-117-0378]
- iv. The averaging times shall be 24 hours rolling for the NO<sub>x</sub> CEMS and 1-hour block for the O<sub>2</sub> CEMS. [P-117-0377; P-117-0378]
- v. Demonstration of compliance with the emission limits in Section III.I.5.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources. [P-117-0377; P-117-0378]:
  - (A) Turbine: CEMS data
  - (B) Duct Burner: CEMS data
- vi. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with

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emission limits in Section III.I.5.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0377; P-117-0378]

*c. Record Keeping Requirements*

- i. The Permittee shall keep records of the date and work performed for repairs, replacement of parts and other maintenance for the units in GEU-13. [RCSA §22a-174-22e(j)(2)(B)]
- ii. The Permittee shall make and keep records of the dates and times of all emission testing required by RCSA §22a-174-22e, 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-174-22e(j)(2)(C)]
- iii. The Permittee shall make and keep the following CEMS records [RCSA §22a-174-22e(j)(2)(D)]:
  - (A) Records of all performance evaluations, calibration checks and adjustments on such monitor,
  - (B) A record of maintenance performed,
  - (C) All data necessary to complete the quarterly reports required under RCSA §22a-174-22e(k)(3), and
  - (D) Charts, electronically stored data, and printed records produced by such CEMS as needed to demonstrate compliance with the requirements of RCSA §22a-174-22e.
- iv. The Permittee shall keep copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(F)]
- vi. The Permittee shall calculate and record the monthly and consecutive 12 month NO<sub>x</sub> emissions in units of tons for each unit in GEU-13. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup, shutdown and fuel switching shall be counted towards the annual emission limitation in Section III.I.5.a.ii of this Title V permit. [P-117-0377; P-117-0378]

*d. Reporting Requirements*

- i. Not more than 60 days after the completion of a certification test conducted under the requirements of RCSA §22a-174-22e(m), the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22e(k)(2)]
- ii. The Permittee shall submit to the commissioner, on forms provided by the commissioner, written quarterly reports of excess emissions and CEMS malfunctions. Such reports shall be submitted to the commissioner on or before January 30, April 30, July 30 and October 30 of each year and shall include:
  - [RCSA §22a-174-22e(k)(3)]
    - (A) All daily block average data, in a format acceptable to the commissioner, for the three calendar month period ending the month before the due date of the report;
    - (B) The date and time of commencement and completion of each period of excess emissions;
    - (C) The magnitude and suspected cause of the excess emissions;
    - (D) Actions taken to correct the excess emissions;
    - (E) The date and time when each malfunction of the CEMS commenced and ended;
    - (F) Actions taken to correct each malfunction; and
    - (G) If no excess emissions or CEMS malfunctions occur during a quarter, the owner or operator shall indicate that no excess emissions or malfunctions occurred during the quarter.
  - iii. Upon written notice, the commissioner may require the Permittee to provide all hourly CEMS data, in a format acceptable to the commissioner, for the three calendar month period identified in such written notice. [RCSA §22a-174-22e(k)(4)]
  - iv. The Permittee shall notify the commissioner in writing at least 30 days prior to conducting any performance or quality assurance testing of the NO<sub>x</sub> CEMS. [RCSA §22a-174-22e(m)(4)]

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- v. The Permittee shall submit required reports pursuant to 40 CFR §60.435
- vi. 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. [RCSA §22a-174-33(j)(1)(X)]

#### 6. VOC

##### a. Limitation or Restriction

- i. The Permittee shall not cause or allow each unit in GEU-13 to exceed the following short term emission limits. These short term emission limits do not apply during periods of startup, shutdown and fuel switching. [P-117-0377; P-117-0378]
  - (A) Turbine Operating on Natural Gas  
 $\leq 0.60 \text{ lb/hr}$
  - (B) Turbine Operating on ULSD  
 $\leq 2.84 \text{ lb/hr}$
  - (C) Turbine Operating on Natural Gas with Duct Burner on Natural Gas  
 $\leq 1.84 \text{ lb/hr}$
  - (D) Turbine Operating on ULSD with Duct Burner on Natural Gas  
 $\leq 4.13 \text{ lb/hr}$
- ii. Total combined emissions per 12 consecutive months shall not exceed the following for GEU-13 combined:
  - [P-117-0377; P-117-0378]
  - $\leq 18.4 \text{ tpy}$

##### b. Monitoring and Testing Requirements

- i. Demonstration of compliance with the emission limits in Section III.I.6.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources. [P-117-0377; P-117-0378]:
  - (A) Turbine  
Solar Turbines predicted emission performance data. VOC assumed to be 20% of the unburned hydrocarbon (UHC) value.
  - (B) Duct Burner  
Victory Energy emissions data.
- ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.I.6.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0377; P-117-0378]

##### c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons for each unit in GEU-13. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup, shutdown and fuel switching shall be counted towards the annual emission limitation in Section III.I.6.a.ii of this Title V permit. [P-117-0377; P-117-0378]

##### d. Reporting Requirements

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. [RCSA §22a-174-33(j)(1)(X)]

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### 7. CO

#### a. Limitation or Restriction

- i. The Permittee shall not cause or allow each unit in GEU-13 to exceed the following short term emission limits. These short term emission limits do not apply during periods of startup, shutdown and fuel switching. [P-117-0377; P-117-0378]
  - (A) Turbine Operating on Natural Gas
    - (1)  $\leq 0.41$  lb/hr
    - (2)  $\leq 2.0$  ppmvd @ 15% O<sub>2</sub>
  - (B) Turbine Operating on ULSD
    - (1)  $\leq 1.02$  lb/hr
    - (2)  $\leq 5.0$  ppmvd @ 15% O<sub>2</sub>
  - (C) Turbine Operating on Natural Gas with Duct Burner on Natural Gas
    - (1)  $\leq 0.69$  lb/hr
    - (2)  $\leq 2.0$  ppmvd @ 15% O<sub>2</sub>
  - (D) Turbine Operating on ULSD with Duct Burner on Natural Gas
    - (1)  $\leq 1.74$  lb/hr
    - (2)  $\leq 5.0$  ppmvd @ 15% O<sub>2</sub>
- ii. Total combined emissions per 12 consecutive months shall not exceed the following for GEU-13 combined: [P-117-0377; P-117-0378]  
 $\leq 7.1$  tpy

#### b. Monitoring and Testing Requirements

- i. Demonstration of compliance with the emission limits in Section III.I.7.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources. [P-117-0377; P-117-0378]:
  - (A) Turbine
    - (1) Control Equipment Guarantee; stack test.
    - (2) Firing natural gas, CO event based emissions to be added to annual CO emission rates.
      - (a) Hot or Warm Start: 41.0 lb/event
      - (b) Cold Start: 42.6 lb/event
      - (c) Shutdown: 22.3 lb/event
      - (d) Fuel Switch to ULSD: 36.0 lb/event
    - (3) Firing ULSD, CO event based emissions to be added to annual CO emission rates.
      - (a) Hot or Warm Start: 36.0 lb/event
      - (b) Cold Start: 37.6 lb/event
      - (c) Shutdown: 20.8 lb/event
      - (d) Fuel Switch to natural gas: 41.0 lb/event
  - (B) Duct Burner  
Control Equipment Guarantee; stack test.
- ii. Recurrent stack testing for CO shall be conducted within five years from the date of the previous stack test in accordance with the stack testing requirements of Part V. of Permit Nos. 117-0377 and 117-0378.

#### c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of

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tons for each unit in GEU-13. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup, shutdown and fuel switching shall be counted towards the annual emission limitation in Section III.I.7.a.ii of this Title V permit. [P-117-0377; P-117-0378]

*d. Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

#### 8. Lead (Pb)

*a. Limitation or Restriction*

i. The Permittee shall not cause or allow each unit in GEU-13 to exceed the following short term emission limits. These short term emission limits do not apply during periods of startup, shutdown and fuel switching. [P-117-0377; P-117-0378]

(A) Turbine Operating on ULSD

$\leq 1.21\text{E-}03$  lb/hr

(B) Turbine Operating on Natural Gas with Duct Burner on Natural Gas

$\leq 3.10\text{E-}05$  lb/hr

(C) Turbine Operating on ULSD with Duct Burner on Natural Gas

$\leq 1.24\text{E-}03$  lb/hr

ii. Total combined emissions per 12 consecutive months shall not exceed the following for GEU-13 combined: [P-117-0377; P-117-0378]

$\leq 1.5\text{E-}03$  tpy

*b. Monitoring and Testing Requirements*

i. Demonstration of compliance with the emission limits in Section III.I.8.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources. [P-117-0377; P-117-0378]:

(A) Turbine

AP-42, 5<sup>th</sup> Edition, Section 3.1, April 2000.

(B) Duct Burner

AP-42, 5<sup>th</sup> Edition, Section 1.4, July 1998.

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.I.8.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0377; P-117-0378]

*c. Record Keeping Requirements*

The Permittee shall calculate and record the monthly and consecutive 12 month Pb emissions in units of tons for each unit in GEU-13. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup, shutdown and fuel switching shall be counted towards the annual emission limitation in Section III.I.8.a.ii of this Title V permit. [P-117-0377; P-117-0378]

*d. Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

#### 9. GHG (as CO<sub>2e</sub>)

##### a. Limitation or Restriction

- i. The Permittee shall not cause or allow each unit in GEU-13 to exceed the following short term emission limits. These short term emission limits do not apply during periods of startup, shutdown and fuel switching. [P-117-0377; P-117-0378]
  - (A) Turbine Operating on Natural Gas  
≤ 10,728 lb/hr
  - (B) Turbine Operating on ULSD  
≤ 14,108 lb/hr
  - (C) Turbine Operating on Natural Gas with Duct Burner on Natural Gas  
≤ 17,988 lb/hr
  - (D) Turbine Operating on ULSD with Duct Burner on Natural Gas  
≤ 21,672 lb/hr
- ii. Total combined emissions per 12 consecutive months shall not exceed the following for GEU-13 combined:  
[P-117-0377; P-117-0378]  
≤ 161,285 tpy

##### b. Monitoring and Testing Requirements

- i. Demonstration of compliance with the emission limits in Section III.I.9.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources. [P-117-0377; P-117-0378].
  - (A) Turbine  
40 CFR Part 98, Table C-1.
  - (B) Duct Burner  
40 CFR Part 98, Table C-1.
- ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.I.9.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0377; P-117-0378]

##### c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month GHG (as CO<sub>2e</sub>) emissions in units of tons for each unit in GEU-13. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup, shutdown and fuel switching shall be counted towards the annual emission limitation in Section III.I.9.a.ii of this Title V permit. [P-117-0377; P-117-0378]

##### d. Reporting Requirements

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. [RCSA §22a-174-33(j)(1)(X)]

#### 10. Ammonia, SCR and Oxidation Catalyst

##### a. Limitation or Restriction

- i. The Permittee shall not cause or allow each unit in GEU-13 to exceed the following short term ammonia emission limits. These short term emission limits do not apply during periods of startup, shutdown and fuel switching. [P-117-0377; P-117-0378]

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#### (A) All Operating Modes

- (1)  $\leq 1.05 \text{ lb/hr}$
- (2)  $\leq 5.0 \text{ ppmvd} @ 15\% \text{ O}_2$

#### b. *Monitoring and Testing Requirements*

- i. Demonstration of compliance with the emission limits in Section III.I.10.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following source. [P-117-0377; P-117-0378]:  
Control Equipment Guarantee; stack test.
- ii. Recurrent stack testing for ammonia shall be conducted within five years from the date of the previous stack test in accordance with the stack testing requirements of Part V. of Permit Nos. 117-0377 and 117-0378.
- iii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.I.10.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0377; P-117-0378]
- iv. The Permittee shall continuously monitor the SCR aqueous ammonia injection rate (lb/hr), operating temperature (°F) and pressure drop (inches of water) across the catalyst bed for each unit in GEU-13. The Permittee shall maintain these parameters within the ranges recommended by the manufacturer to achieve compliance with the emission limits in this permit.  
[P-117-0377; P-117-0378]
- v. The Permittee shall continuously monitor the oxidation catalyst inlet temperature (°F) for each unit in GEU-13. The Permittee shall maintain this parameter within the range recommended by the manufacturer to achieve compliance with the emission limits in this permit. [P-117-0377; P-117-0378]
- vi. The Permittee shall perform inspections of the SCR and oxidation catalysts as recommended by the manufacturer. [P-117-0377; P-117-0378]

#### c. *Record Keeping Requirements*

- i. The Permittee shall keep records of each delivery of aqueous ammonia. The records shall include the following: [P-117-0377; P-117-0378]
  - (A) the date of delivery;
  - (B) the name of the supplier;
  - (C) the quantity of aqueous ammonia delivered; and
  - (D) the percentage of ammonia in solution, by weight.
- ii. The Permittee shall continuously record the SCR aqueous ammonia injection rate (lb/hr), operating temperature (°F) and pressure drop (inches of water) across the catalyst bed for each unit in GEU-13. The Permittee shall maintain these parameters within the ranges recommended by the manufacturer to achieve compliance with the emission limits in this permit.  
[P-117-0377; P-117-0378]
- iii. The Permittee shall continuously record the oxidation catalyst inlet temperature (°F) for each unit in GEU-13. The Permittee shall maintain this parameter within the range recommended by the manufacturer to achieve compliance with the emission limits in this permit.  
[P-117-0377; P-117-0378]
- iv. The Permittee shall keep records of the inspection and maintenance of the SCR and oxidation catalysts. The records shall include: [P-117-0377; P-117-0378]
  - (A) the name of the person;
  - (B) the date;
  - (C) the results or actions; and

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(D) the date the catalyst is replaced.

#### *d. Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

## 11. Startup, Shutdown, Fuel Switching Events, Malfunctions and Exceedances

#### *a. Limitation or Restriction*

##### i. Definitions and Durations [P-117-0377; P-117-0378]:

- (A) A hot start shall be defined as startup when the turbine has been down for less than 8 hours. The duration of a hot start shall not exceed 60 minutes.
- (B) A warm start shall be defined as startup when the turbine has been down for 8 or more hours but less than 24 hours. The duration of a warm start shall not exceed 60 minutes.
- (C) A cold start shall be defined as startup when the turbine has been down for 24 or more hours. The duration of a cold start shall not exceed 240 minutes.
- (D) A fuel switch shall be defined as the period of time beginning with the firing of a fuel other than the initial fuel and ending when the firing of the initial fuel ends and the turbine returns to steady-state operation. The duration of a fuel switch shall not exceed 60 minutes.
- (E) The duration of a shutdown shall not exceed 30 minutes.

##### ii. In the event that a malfunction causing either an emission exceedance or a parameter monitored out of recommended range is not corrected within three hours, the Permittee shall immediately institute shutdown of the turbine/duct burner. [P-117-0377; P-117-0378]

#### *b. Monitoring and Testing Requirements*

- i. The Permittee shall start ammonia injection as soon as the minimum catalyst temperature is reached. [P-117-0377; P-117-0378]
- ii. The oxidation catalyst shall not be bypassed during startup, shutdown or fuel switching. [P-117-0377; P-117-0378]
- iii. The Permittee shall operate the NO<sub>x</sub> CEMS at all times during periods of startup, shutdown and fuel switching and shall be used to determine NO<sub>x</sub> emissions during these periods. [P-117-0377; P-117-0378]
- iv. The Permittee shall comply with the monitoring requirements in RCSA Section 22a-174-22e, as applicable. [P-117-0377; P-117-0378]

#### *c. Record Keeping Requirements*

- i. The Permittee shall keep records of the occurrence and duration of any startup, shutdown, fuel switch or malfunction in the operation of the stationary gas turbine/duct burner; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. Such records shall contain the following information: [P-117-0377; P-117-0378]
  - (A) type of event (hot, warm or cold startup, shutdown, fuel switch, or malfunction);
  - (B) equipment affected;
  - (C) date of event;
  - (D) duration of event (minutes);
  - (E) fuel being used during the event; and
  - (F) total NO<sub>x</sub> and CO emissions emitted (lb) during the event.
- ii. The Permittee shall keep records of all exceedances of any operating parameter or emissions limitation. Such records shall include: [P-117-0377; P-117-0378]

### Section III: Applicable Requirements and Compliance Demonstration

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- (A) the date and time of the exceedance;
- (B) a detailed description of the exceedance; and
- (C) the duration of the exceedance.

- iii. The Permittee shall keep all records required by RCSA Section 22a-174-22e, as applicable. [P-117-0377; P-117-0378]

*d. Reporting Requirements*

- i. The Permittee shall notify the commissioner in writing of any malfunction of the stationary gas turbine/duct burner, the air pollution control equipment or the continuous monitoring system. The Permittee shall submit such notification within ten days of the malfunction. The notification shall include the following: [P-117-0377; P-117-0378]
  - (A) a description of the malfunction and a description of the circumstances surrounding the cause or likely cause of such malfunction; and
  - (B) description of all corrective actions and preventive measures taken and/or planned with respect to such malfunction and the dates of such actions and measures.
- ii. The Permittee shall notify the commissioner in writing of any exceedance of an operating parameter or emissions limitation, and shall identify the cause or likely cause of such exceedance, all corrective actions and preventive measures taken with respect thereto, and the dates of such actions and measures as follows: [P-117-0377; P-117-0378]
  - (A) For any hazardous air pollutant, no later than 24 hours after such exceedance commenced; and
  - (B) For any other regulated air pollutant or operating parameter, no later than ten days after such exceedance commenced.
- iii. 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. [RCSA §22a-174-33(j)(1)(X)]

### 12. Operation and Maintenance Requirements

- a. The Permittee shall operate and maintain the units in GEU-13 in accordance with the manufacturer's specifications and written recommendations. [P-117-0377; P-117-0378]
- b. The Permittee shall operate and maintain the equipment, air pollution control equipment, and monitoring equipment in GEU-13 in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. [P-117-0377; P-117-0378]
- c. The Permittee shall properly operate the control equipment in GEU-13 at all times that the equipment in GEU-13 is in operation and emitting air pollutants. [P-117-0377; P-117-0378]

### J. EMISSIONS UNIT 214 (EU-214) - Kohler Emergency Generator [Greeley Lab] (Subject to 40 CFR Part 60 Subpart JJJJ)

#### 1. 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

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

- i. The Permittee shall comply with the emissions standards for emergency SI ICE in Table 1 of 40 CFR Part 60 Subpart JJJJ. [40 CFR §60.4233(e)]
- ii. The Permittee shall operate and maintain EU-214 to achieve the emission standards as required in 40 CFR §60.4233 over the entire life of the engine. [40 CFR §60.4234]
- iii. To be considered an emergency engine under 40 CFR Part 60 Subpart JJJJ, the Permittee shall operate EU-214 in accordance with 40 CFR §60.4243(d)(1), (2) and (3).
- iv. The Permittee shall meet the requirements for a non-emergency engine in accordance with 40 CFR Part 60 Subpart JJJJ if the requirements of 40 CFR §60.4243(d) are not met. [40 CFR §60.4243(d)]

### Section III: Applicable Requirements and Compliance Demonstration

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#### *b. Monitoring and Testing Requirements*

The Permittee shall install a non-resettable hour meter if EU-214 does not meet the standards applicable to a non-emergency engine. [40 CFR §60.4237(b)]

#### *c. Record Keeping Requirements*

The Permittee shall make and keep the following records: [40 CFR §60.4245(b)]

- i. Records of total hours of operation of the engine recorded through a non-resettable hour meter.
- ii. Records of hours of emergency operation and what classified the operation as emergency.
- iii. Records of the hours of non-emergency operation.

#### *d. Reporting Requirements*

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. [RCSA §22a-174-33(j)(1)(X)]

## **K. 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-174-4a(b)(1).
- 2. Emission Testing:** The Permittee shall comply with the procedures for sampling, emission testing, sample analysis, and reporting as set forth in RCSA §22a-174-5.
- 3. Emergency Episode Procedures:** The Permittee shall comply with the procedures for emergency episodes as set forth in RCSA §22a-174-6.
- 4. 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.
- 5. Prohibition of Air Pollution:** The Permittee shall comply with the requirement to prevent air pollution as set forth in RCSA §22a-174-9.
- 6. Public Availability of Information:** The public availability of information shall apply, as set forth in RCSA §22a-174-10.
- 7. Prohibition Against Concealment/Circumvention:** The Permittee shall comply with the prohibition against concealment or circumvention as set forth in RCSA §22a-174-11.
- 8. Violations and Enforcement:** The Permittee shall not violate or cause the violation of any applicable regulation as set forth in RCSA §22a-174-12.
- 9. 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.
- 10. No Defense to Nuisance Claim:** The Permittee shall comply with the regulations as set forth in RCSA §22a-174-14.
- 11. Severability:** The Permittee shall comply with the severability requirements as set forth in RCSA §22a-174-15.
- 12. Responsibility to Comply:** The Permittee shall be responsible to comply with the applicable regulations as set forth in RCSA §22a-174-16.
- 13. 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.
- 14. Fuel Sulfur Content:** The Permittee shall not use No. 2 heating oil that exceeds fifteen parts per million of sulfur by weight as set forth in CGS §16a-21a(a)(2)(B).
- 15. Sulfur Compound Emissions:** The Permittee shall comply with the requirements for control of sulfur compound emissions as set forth in RCSA §§22a-174-19, 22a-174-19a and 22a-174-19b, as applicable.
- 16. Organic Compound Emissions:** The Permittee shall comply with the requirements for control of organic compound emissions as set forth in RCSA §22a-174-20.

### Section III: Applicable Requirements and Compliance Demonstration

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18. **Nitrogen Oxide Emissions:** The Permittee shall comply with the requirements for control of nitrogen oxide emissions as set forth in RCSA §22a-174-22e.
19. **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).
20. **Open Burning:** The Permittee is prohibited from conducting open burning, except as may be allowed by CGS §22a-174(f).
21. **Asbestos:** Should the premises, as defined in 40 CFR §61.145, become subject to the national emission standard for asbestos regulations in 40 CFR Part 61 Subpart M when conducting any renovation or demolition at this premises, then the Permittee shall submit proper notification as described in 40 CFR §61.145(b) and shall comply with all other applicable requirements of 40 CFR Part 61 Subpart M.
22. **Emission Fees:** The Permittee shall pay an emission fee as set forth in RCSA §22a-174-26(d).

## Section IV: Compliance Schedule

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No steps are required for achieving compliance at this time.

## Section V: State Enforceable Terms and Conditions

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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.
- E. 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.

## Section VI: Title V Requirements

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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 this section.

### 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: Compliance Analysis and Coordination Unit, 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 submitted per the procedure required by the applicable requirement or otherwise in a computer-readable format and addressed to: Director, Enforcement and Compliance Assurance Division, U.S. EPA Region I, 5 Post Office Square, Suite 100 (Mailcode: 04-02), Boston, Massachusetts 02109-3912, Attn: Air Compliance Clerk.

### 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:
  - 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,

## Section VI: Title V Requirements

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- 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 §22a-174-2a(a)(5).

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

A Permittee, required to perform monitoring pursuant to 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 Title V 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;
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

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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 Section VI.E. 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.

### 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 -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 -

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33(g)(3)(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.

### **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.

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### 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-6o.

### 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).

### 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.

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

Click the button below to generate the appropriate checklist. Be aware that this macro does not work unless you have access to the DEEP-D-Drive.

This macro takes anywhere from 2-5 minutes to run. Your computer will look like it is locked up but it is working. Unfortunately the new DEEP-virtual computer system makes this process even slower. Please be patient.

[Print Enforcement Checklist](#)

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