

# 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.

Title V Permit Number	117-0271-TV
Client/Sequence/Town/Premises Numbers	205/2/117/49
Date Issued	May 16, 2022
Expiration Date	May 16, 2027

## **Corporation:**

Yale University, School of Medicine

#### **Premises Location:**

330 Cedar Street, New Haven, Connecticut 06510

## Name of Responsible Official and Title:

Jack Callahan, Senior Vice President of Operations

All the following attached pages, 2 through 52, are hereby incorporated by reference into this Title V permit.

Katherine S. Dykes Commissioner May 16, 2022

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# Title V Operating Permit

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

#### LIST OF ABBREVIATIONS/ACRONYMS

#### Abbreviation/Acronym

gal

#### Description

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

DEEP Department of Energy and Environmental Protection

Gallon

EU Emissions Unit

EPA Environmental Protection Agency

 $^{\mathrm{o}}\mathrm{F}$  Degrees Fahrenheit  $\mathrm{ft^{3}}$  Cubic Feet

GEU Grouped Emissions Unit HAP Hazardous Air Pollutant

hr Hou

ICE Internal Combustion Engine

 $\begin{array}{ccc} J & & Joule \\ kW & Kilowatt \\ lb & Pound \\ m^3 & Cubic Meters \end{array}$ 

MMBtu Million British Thermal Units

MMft<sup>3</sup> Million Cubic Feet

MW Megawatt

NO<sub>2</sub> Nitrogen Dioxide NSR New Source Review

O<sub>2</sub> Oxygen

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

VOC Volatile Organic Compound

#### **Section I: Premises Information/Description**

#### A. PREMISES INFORMATION

Nature of Business: University – school of higher education

Primary SIC: 8221

Facility Mailing Address: 2 Whitney Avenue, 5th Floor New Haven, CT 06520-8297

Telephone Number: (203) 737-4338

#### **B. PREMISES DESCRIPTION**

The Yale University School of Medicine Premises 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 many are heated and cooled by steam-generating plants owned by Yale. However, some buildings have their own sources of heat and hot water and emergency generators.

The School of Medicine Premises contains the Sterling Power Plant. Sterling houses four steam boilers each capable of firing combinations of distillate and natural gas and a combined cycle cogeneration facility (consisting of two 7.5 MW Solar Taurus 70 turbines, two Rentech Duct Burners with SCR and CO Catalytic Oxidizer) to provide reliable electrical power and to meet heating and cooling needs of the campus. The premises also contains emergency diesel and natural gas fired generators to provide power reliability.

The Sterling Power Plant and all permitted and registered fuel burning equipment at the premises, any sources at the premises operating under Section 22a-174-3b of RCSA, and any other source of  $NO_x$  emissions at the premises shall operate under an annual  $NO_x$  limit of 116.6 tons.

The premises contains several emergency engines and small boilers operated in accordance with RCSA §22a-174-3b and one paint spray booth operated in accordance with RCSA §22a-174-3c.

Pursuant to 40 CFR §63.6585(f)(3), the existing institutional emergency engines that meet the definition of an emergency stationary RICE as defined in 40 CFR Part 63 Subpart ZZZZ and that do not operate for the purpose specified in 40 CFR §63.6640(f)(4)(ii) are not subject to Subpart ZZZZ. The emergency engines subject to 40 CFR Part 60 Subparts IIII or JJJJ meet the requirements of Subpart ZZZZ by meeting the requirements of Subpart IIII or Subpart JJJJ, as applicable.

In addition to sources that have unit specific applicable requirements, these premises contain many small sources that typically have no unit specific applicable requirements. Such sources are often replaced, removed or added to the premises.

# 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 UNITS DESCRIPTION				
Emissions Unit/ Grouped Emissions Unit	Emissions Unit Description	Size Rating/ Design Capacity	Control Unit Description	Monitoring Unit Description	Permit or Regulation Number
EU-1	Babcock, Wilcox Boiler No. 8 Model FM103-70 Location: Congress Avenue, 309 (Sterling Power Plant) Construction Date: 1987	80.8 MMBtu/hr (Distillate Oil) 85 MMBtu/hr (Nat. Gas)	Low NOx Burner	None	P-117-0105 RCSA §22a-174-22e 40 CFR Part 63 Subpart JJJJJ
EU-5/ GEU-2	Nebraska Boiler No. 9 Model NOS-2A-58 Location: Congress Avenue, 309 (Sterling Power Plant) Construction Date: 1994	73.5 MMBtu/hr (Distillate Oil) 76.2 MMBtu/hr (Nat. Gas)	Low NOx Burner, FGR	None	P-117-0326 40 CFR Part 60 Subpart Dc RCSA §22a-174-22e 40 CFR Part 63 Subpart JJJJJJ
EU-6/ GEU-2	Nebraska Boiler No. 10 Model NOS-2A-58 Location: Congress Avenue, 309 (Sterling Power Plant) Construction Date: 2004	73.5 MMBtu/hr (Distillate Oil) 76.2 MMBtu/hr (Nat. Gas)	Low NOx Burner, FGR	None	P-117-0220 40 CFR Part 60 Subpart Dc RCSA §22a-174-22e 40 CFR Part 63 Subpart JJJJJJ
EU-7	Binks 2001 HVLP Spray Coating Unit Location: Daggett Street, 21 Construction Date: 2004		Filters with 98.5% efficiency	None	RCSA §22a-174-3c
EU-8/ GEU-2	Nebraska Boiler No. 11 Model NOS-2A-81, S/N 0-4432 Location: Congress Avenue, 309 (Sterling Power Plant) Construction Date: 2004	81.54 MMBtu/hr (Distillate Oil) 85.47 MMBtu/hr (Nat. Gas)	Low NOx Burner, FGR	None	P-117-0355 40 CFR Part 60 Subpart Dc RCSA §22a-174-22e 40 CFR Part 63 Subpart JJJJJJ

	TABLE II.A: EMISSIONS UNITS DESCRIPTION				
Emissions Unit/ Grouped Emissions Unit	Emissions Unit Description	Size Rating/ Design Capacity	Control Unit Description	Monitoring Unit Description	Permit or Regulation Number
EU-9/ GEU-3	7.5 MW Solar Taurus 70 Turbine with Rentech Duct Burner Location: Congress Avenue, 309 (Sterling Power Plant) Construction Date: 2009	-0.0005T <sup>2</sup> – 0.1766T + 90.777 MMBtu/hr (T, °F, turbine Nat. Gas) 67 MMBtu/hr (duct burner Nat. Gas) -0.0004T <sup>2</sup> – 0.1806T + 90.017 MMBtu/hr (T, °F, turbine Distillate Oil)	SCR; Low NOx Burner, CO Oxidation Catalyst	CEMs for NOx and O <sub>2</sub>	P-117-0369 RCSA §22a-174-22e 40 CFR Part 60 Subpart KKKK
EU-10/ GEU-3	7.5 MW Solar Taurus 70 Turbine with Rentech Duct Burner Location: Congress Avenue, 309 (Sterling Power Plant) Construction Date: 2009	-0.0005T <sup>2</sup> – 0.1766T + 90.777 MMBtu/hr (T, °F, turbine Nat. Gas) 67 MMBtu/hr (duct burner Nat. Gas) -0.0004T <sup>2</sup> – 0.1806T + 90.017 MMBtu/hr (T, °F, turbine Distillate Oil)	SCR; Low NOx Burner, CO Oxidation Catalyst	CEMS for NOx and O <sub>2</sub>	P-117-0370 RCSA §22a-174-22e 40 CFR Part 60 Subpart KKKK
EU-16/ GEU-5	Caterpillar Emergency Diesel Generator Model No. 3412 Location: Liberty Street, 184, (YPI) Construction Date: 1990	500 KW	None	None	RCSA §22a-174-3b(e) RCSA §22a-174-22e
EU-17/ GEU-5	Cummins Emergency Diesel Generator Model No. VTA28-GS1 Location: Howard Avenue, 800 (YPB) Construction Date: 1988	500 KW	None	None	RCSA §22a-174-3b(e) RCSA §22a-174-22e
EU-19/ GEU-5	Mitsubishi Emergency Diesel Generator Model No. S12 H-PTA Location: Congress Avenue, behind Sterling Power Plant Construction Date: 2002	1000 KW	None	None	RCSA §22a-174-3b(e) RCSA §22a-174-22e
EU-20/ GEU-5	Mitsubishi Emergency Diesel Generator Model	500 KW	None	None	RCSA §22a-174-3b(e) RCSA §22a-174-22e

TABLE II.A: EMISSIONS UNITS DESCRIPTION					
Emissions Unit/ Grouped Emissions Unit	Emissions Unit Description	Size Rating/ Design Capacity	Control Unit Description	Monitoring Unit Description	Permit or Regulation Number
	No. S6A3-PTA Location: Cedar Street, 310 FMM 221 Construction Date: 2001				
EU-23/ GEU-5	Caterpillar Emergency Diesel Generator Model No. 3516 Location: Anylan Center Construction Date: 2002	2000 KW	None	None	RCSA §22a-174-3b(e) RCSA §22a-174-22e
EU-27/ GEU-5	Caterpillar Emergency Diesel Generator Model No. 3516B Location: Congress Avenue, Sterling Power Plant Construction Date: 2002	2000 KW	None	None	RCSA §22a-174-3b(e) RCSA §22a-174-22e
EU-46	Caterpillar/HO Penn Diesel Emergency Generator Location: Amistad Building/ Parking Garage Construction Date: 2007	750 KW	None	None	RCSA §22a-174-3b(e) RCSA §22a-174-22e 40 CFR Part 60 Subpart IIII
EU-22	Mitsubishi Diesel Emergency Generator Location: Cedar Street, 330 (SHM-1) Construction Date: 2001	150 KW	None	None	RCSA §22a-174-3b(e)
EU-53	Kohler Natural Gas Emergency Generator Location: Congress Avenue, 470 Construction Date: 2018	25 KW	None	None	40 CFR Part 60 Subpart JJJJ

# **B. OPERATING SCENARIO IDENTIFICATION**

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

TABLE II.B: OPERATING SCENARIO IDENTIFICATION			
Identification of Operating Scenario	Emissions Units Associated with the Scenario	Description of Scenario	
SOS	ALL EMISSIONS UNITS	All emissions units shall be operated in accordance with applicable permit or regulation terms and conditions.	

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 - Babcock, Wilcox Boiler No. 8 Model FM103-70 [P-117-0105]

#### 1. Fuel

- a. Limitation or Restriction
  - i. The allowable fuel types are natural gas and distillate oil. [P-117-0105]
  - ii. Maximum fuel consumption over any consecutive 12 month period
    - (A) Natural gas: 561 MMft<sup>3</sup>
    - (B) Distillate oil: 5,129,043 gallons
  - iii. The maximum sulfur content of the fuel shall not exceed 0.0015% by weight, dry basis. [RCSA §22a-174-19b]
  - iv. The combined annual fuel consumption for EU-1 and GEU-2 shall not exceed 12.3 MM gallons. [P-117-0105]
- b. Monitoring and Testing Requirements
  - i. Sulfur content shall be analyzed in accordance with American Society for Testing and Material (ASTM) test method D4294-10, *Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy Dispersive X-ray Fluorescence Spectrometry*, or D7039-07, *Standard Test Method for Sulfur in Gasoline and Diesel Fuel by Monochromatic Wavelength Dispersive X-ray Fluorescence Spectrometry*, or the current active version thereof, and automatic sampling equipment shall conform to ASTM test method D4177-95(2010), *Standard Practice for Automatic Sampling of Petroleum and Petroleum Products*, or the current active version thereof. [RCSA 22a-174-19b(f)(3)]
  - ii. When more than one fuel supply tank is to service EU-1 or when multiple sources are supplied by one fuel tank, the Permittee shall use a non-resettable totalizing fuel metering device to continuously monitor fuel feed to EU-1. [P-117-0105]
- c. Record Keeping Requirements
  - i. The Permittee shall keep monthly and annual records of fuel consumption for EU-1. Annual fuel consumption shall be based on any consecutive 12 month time period and shall be determined by adding (for each fuel) the current month's fuel usage to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0105]
  - ii. The Permittee shall keep monthly and annual records of distillate oil consumption for EU-1 and GEU-2 combined. Annual distillate oil consumption shall be based on any consecutive 12 month time period and shall be determined by adding the current month's combined distillate oil usage to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0105; P-117-0326; P-117-0220; P-117-0355]
  - iii. The Permittee shall maintain records of the hours of operation. Annual operating hours shall be based on any consecutive 12 month time period and shall be determined by adding the current month's operating hours to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0105]
  - iv. The Permittee shall keep records of the fuel certification for each delivery of fuel from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type

of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel. [P-117-0105; RCSA §22a-174-19b]

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

- a. Limitation or Restriction
  - i. Firing natural gas:
    - (A) 0.650 lb/hr
    - (B) 0.0076 lb/MMBtu
  - ii. Firing distillate oil:
    - (A) 1.37 lb/hr
    - (B) 0.0170 lb/MMBtu
  - iii. The combined PM<sub>10</sub> emissions for EU-1 and GEU-2 shall not exceed 15.66 tpy. [P-117-0105]
- b. Monitoring and Testing Requirements

The Permittee shall conduct recurring stack testing for PM<sub>10</sub> every five years. [P-117-0105]

c. Record Keeping Requirements

The Permittee shall maintain monthly and annual actual  $PM_{10}$  emissions for EU-1 and GEU-2 combined. The monthly emissions shall be calculated using emission factors obtained from the latest stack test or if unavailable, manufacturer's emissions data and the fuel usage. Annual emissions shall be calculated each calendar month by adding the current calendar month's combined emissions to those of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.  $[P-117-0105, RCSA \S 22a-174-33(j)(1)(K)]$ 

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. SO<sub>2</sub>

- a. Limitation or Restriction
  - i. Firing natural gas:
    - (A) 0.051 lb/hr
    - (B) 0.0006 lb/MMBtu
  - ii. Firing distillate oil:
    - (A) 4.22 lb/hr
    - (B) 0.0522 lb/MMBtu
  - iii. The combined SO<sub>2</sub> emissions for EU-1 and GEU-2 shall not exceed 44.43 tpy. [P-117-0105]
- b. Monitoring and Testing Requirements

Record keeping specified in Section III.A.3.c of this Title V permit shall be sufficient to meet other Monitoring and Testing Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall maintain a record of monthly and annual  $SO_2$  emissions for EU-1 and GEU-2 combined. The monthly emissions shall be calculated using emission factors obtained from the latest

version of AP-42 and the fuel usage. Annual emissions shall be calculated each calendar month by adding the current calendar month's combined emissions to those of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0105, RCSA §22a-174-33(j)(1)(K)]

# 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. NO<sub>v</sub>

- a. Limitation or Restriction
  - i. Firing natural gas:
    - (A) 11.90 lb/hr [P-117-0105]
    - (B) 0.140 lb/MMBtu [P-117-0105]
    - (C) Prior to June 1, 2023: 0.20 lb/MMBtu [RCSA §22a-174-22e(d)(3)(A)]
    - (D) On and after June 1, 2023: 0.05 lb/MMBtu [RCSA §22a-174-22e(d)(3)(C)]
  - ii. Firing distillate oil:
    - (A) 11.31 lb/hr [P-117-0105]
    - (B) 0.140 lb/MMBtu [P-117-0105]
    - (C) Prior to June 1, 2023: 0.20 lb/MMBtu [RCSA §22a-174-22e(d)(3)(A)]
    - (D) On and after June 1, 2023: 0.10 lb/MMBtu [RCSA §22a-174-22e(d)(3)(C)]
  - iii. The combined NOx emissions for EU-1 and GEU-2 shall not exceed 116.6 tpy. [P-117-0105]
- b. Monitoring and Testing Requirements
  - i. The Permittee shall conduct recurring stack testing for NO<sub>x</sub> every five years. [P-117-0105]
- c. Record Keeping Requirements
  - i. The Permittee shall maintain a record of monthly and actual annual NO<sub>x</sub> emissions for each unit of EU-1 and GEU-2 separately. The monthly emissions shall be calculated using emission factors obtained from the latest stack test or if unavailable, manufacturer's emissions data and the fuel usage. Annual emissions shall be calculated on a calendar year basis by adding the current calendar month's combined emissions to those of the previous calendar months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0105, RCSA §22a-174-33(j)(1)(K)]
  - ii. The Permittee shall keep records of all tune-ups, repairs, replacement of parts and other maintenance done on the unit. [RCSA §22a-174-22e(j)(2)(B)]
  - iii. The Permittee shall keep the following records of each tune-up conducted pursuant to RCSA §22a-174-22e(i): [RCSA §22a-174-22e(j)(2)(E)]
    - (A) The date on which the emission unit is tuned-up; the name, title and affiliation of the person performing the tune-up, and a description of work performed; and
    - (B) The procedures used to inspect and perform adjustments.
  - 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 records of the dates, times, and places of all emission testing done on this unit, 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)]

#### 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  $\S 22a-174-33(j)(1)(X)$ ]

#### 5. VOC

- a. Limitation or Restriction
  - i. Firing natural gas:
    - (A) 0.470 lb/hr
    - (B) 0.0055 lb/MMBtu
  - ii. Firing distillate oil:
    - (A) 0.320 lb/hr
    - (B) 0.004 lb/MMBtu
  - iii. The combined VOC emissions for EU-1 and GEU-2 shall not exceed 21.43 tpy. [P-117-0105]
- b. Monitoring and Testing Requirements

The Permittee shall conduct recurring stack testing for VOC every five years in. [P-117-0105]

c. Record Keeping Requirements

The Permittee shall maintain monthly and annual VOC emissions for EU-1 and GEU-2 combined. The monthly VOC emissions shall be calculated using emission factors obtained from the latest stack test or if unavailable, manufacturer's emissions data and the fuel usage. Annual emissions shall be calculated each calendar month by adding the current calendar month's combined emissions to those of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0105, RCSA §22a-174-33(j)(1)(K)]

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)]

#### 6. CO

- a. Limitation or Restriction
  - i. Firing natural gas:
    - (A) 7.14 lb/hr
    - (B) 0.084 lb/MMBtu
  - ii. Firing distillate oil:
    - (A) 2.93 lb/hr
    - (B) 0.0363 lb/MMBtu
  - iii. The combined CO emissions for EU-1 and GEU-2 shall not exceed 130.5 tpy. [P-117-0105]
- b. Monitoring and Testing Requirements

The Permittee shall conduct recurring stack testing for CO every five years. [P-117-0105]

c. Record Keeping Requirements

The Permittee shall maintain monthly and annual actual CO emissions for EU-1 and GEU-2 combined. The monthly emissions shall be calculated using emission factors obtained from the latest stack test or if unavailable, manufacturer's emissions data and the fuel usage. Annual emissions shall be calculated each calendar month by adding the current calendar month's combined emissions to those of the previous 11

months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0105; RCSA §22a-174-33(j)(1)(K)]

#### 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  $\S 22a-174-33(j)(1)(X)$ ]

#### 7. Opacity

- a. Limitations or Restrictions
  - i. The Permittee shall not permit visible emissions to exceed the following limitations: [RCSA §22a-174-18(b)(1)]
    - (A) 20 percent during any six-minute block average as measured by 40 CFR Part 60, Reference Method 9, Appendix A; or
    - (B) 40 percent as measured by 40 CFR Part 60, Reference Method 9, Appendix A, reduced to a one-minute block average.
- b. Monitoring and Testing Requirements
  - i. The Permittee shall demonstrate compliance with the visible emissions standard by maintaining good operational practices, and by performing burner maintenance and cleaning at least once per year. [RCSA §22a-174-4(d)(1)]
  - ii. If required by the commissioner, the Permittee shall measure visible emissions using 40 CFR Part 60, Reference Method 9. [RCSA §22a-174-5(e)(2)]
- c. Record Keeping Requirements
  - i. The Permittee shall maintain records of all tune-ups, repairs, replacement of parts and other maintenance to verify boilers are being properly maintained. [RCSA §22a-174-4(d)(1)]
  - ii. The Permittee shall maintain records of the opacity tests required in Section III.A.7.b.ii of this Title V permit. Such records shall contain the dates, times, and places of all visible emission observations, persons performing the observations, test methods used, the operating conditions at the time of observation, and the results. [RCSA §22a-174-4(c)(1)]
- 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. 40 CFR Part 63 Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

a. Limitation or Restriction

Pursuant to 40 CFR §63.11223(c), boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up must conduct a tune-up of the boiler every five years as specified in 40 CFR §§63.11223(b)(1) through (7). Each five-year tune-up must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed boiler with an oxygen trim system, the first five-year tune-up must be no later than 61 months after the initial startup. You may delay the burner inspection specified in 40 CFR §63.11223(b)(1) and inspection of the system controlling the air-to-fuel ratio specified in 40 CFR §63.11223(b)(3) until the next scheduled unit shutdown, but you must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every five years, set the oxygen level no lower than the oxygen concentration

measured during the most recent tune-up. [40 CFR §63.11201(b); Table 2, Condition 4 of 40 CFR Part 63 Subpart JJJJJJ; 40 CFR §63.11223(a)]

#### 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 JJJJJJ 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

- 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 JJJJJJ 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 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 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 2 - Nebraska Boiler Nos. 9, 10, and 11 (EU-5, EU-6 and EU-8) [P-117-0326, P-117-0220 and P-117-0355]

#### 1. Fuel

- a. Limitation or Restriction
  - The allowable fuel types are natural gas and distillate oil. [P-117-0326; P-117-0220; P-117-0355]
  - ii. Maximum fuel consumption over any consecutive 12 month period for each of EUs 5 and 6: [P-117-0326; P-117-0220]
    - (A) Natural gas: 667.512 MMft<sup>3</sup>
    - (B) Distillate oil: 4,669,080 gallons
  - iii. Maximum fuel consumption over any consecutive 12 month period for EU-8 [P-117-0355]

- (A) Natural gas: 748.7172 MMft<sup>3</sup>
- (B) Distillate oil: 5,177,160 gallons
- iv. The maximum sulfur content of the fuel shall not exceed 0.0015% by weight, dry basis for distillate oil and 0.00025% by weight, dry basis for natural gas.

  [P-117-0326; P-117-0220; P-117-0355; RCSA §22a-174-19b]
- v. The combined annual fuel consumption for EU-1 and GEU-2 shall not exceed 12.3 MM gallons. [P-117-0326; P-117-0220; P-117-0355]

#### b. Monitoring and Testing Requirements

- i. Sulfur content shall be analyzed in accordance with American Society for Testing and Material (ASTM) test method D4294-10, *Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy Dispersive X-ray Fluorescence Spectrometry*, or D7039-07, *Standard Test Method for Sulfur in Gasoline and Diesel Fuel by Monochromatic Wavelength Dispersive X-ray Fluorescence Spectrometry*, or the current active version thereof, and automatic sampling equipment shall conform to ASTM test method D4177-95(2010), *Standard Practice for Automatic Sampling of Petroleum and Petroleum Products*, or the current active version thereof. [RCSA 22a-174-19b(f)(3)]
- ii. The Permittee shall use a non-resettable totalizing fuel metering device to continuously monitor fuel feed to each unit in GEU-2. [P-117-0326; P-117-0220; P-117-0355]

## c. Record Keeping Requirements

- i. The Permittee shall keep monthly and annual records of fuel consumption for each unit in GEU-2 separately. Annual fuel consumption shall be based on any consecutive 12 month time period and shall be determined by adding (for each fuel) the current month's fuel usage for each unit to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [40 CFR §60.48c(g); P-117-0326; P-117-0220; P-117-0355]
- ii. The Permittee shall keep monthly and annual records of fuel consumption for EU-1 and GEU-2 combined. Annual fuel consumption shall be based on any consecutive 12 month time period and shall be determined by adding (for each fuel) the current month's combined fuel usage to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month and the annual calculation for the previous year by January 31 of the current year. [P-117-0326; P-117-0220; P-117-0355]
- iii. The Permittee shall keep records of the fuel certification for each delivery of fuel from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel.
  - [40 CFR §60.48c(f)(1); P-117-0326; P-117-0220; P-117-0355; RCSA 22a-174-19b ]

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

- a. Limitation or Restriction
  - i. For EU-5 and 6, the  $PM_{10}$  emissions from each boiler shall not exceed the following at any time when firing natural gas. [P-117-0326; P-117-0220]
    - (A) 0.58 lb/hr

- (B) 0.0076 lb/MMBtu
- (C) 2.54 tpy
- ii. For EU-8, the  $PM_{10}$  emissions shall not exceed the following at any time when firing natural gas. [P-117-0355]
  - (A) 0.43 lb/hr
  - (B) 0.005 lb/MMBtu
  - (C) 1.87 tpy
- iii. For EU-5 and 6, the PM<sub>10</sub> emissions from each boiler shall not exceed the following at any time when firing distillate oil. [P-117-0326; P-117-0220]
  - (A) 1.23 lb/hr
  - (B) 0.0170 lb/MMBtu
  - (C) 5.37 tpy
- iv. For EU-8, the PM<sub>10</sub> emissions shall not exceed the following at any time when firing distillate oil. [P-117-0355]
  - (A) 1.36 lb/hr
  - (B) 0.0170 lb/MMBtu
  - (C) 5.95 tpy
- vii. The combined  $PM_{10}$  emissions for EU-1 and GEU-2 shall not exceed 15.66 tpy. [P-117-0326; P-117-0220; P-117-0355]
- b. Monitoring and Testing Requirements

The Permittee shall conduct recurring stack testing for  $PM_{10}$  every five years. [P-117-0326; P-117-0220; P-117-0355]

- c. Record Keeping Requirements
  - i. The Permittee shall maintain a record of monthly and annual PM<sub>10</sub> emissions for each unit in GEU-2 separately. The monthly emissions shall be calculated using emission factors obtained from the latest version of AP-42 and the fuel usage. Annual emissions shall be calculated each calendar month by adding the current calendar month's emissions for each unit to those of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0326; P-117-0220; P-117-0355]
  - ii. The Permittee shall maintain a record of monthly and annual PM<sub>10</sub> emissions for EU-1 and GEU-2 combined. The monthly emissions shall be calculated using emission factors obtained from the latest version of AP-42 and the fuel usage. Annual emissions shall be calculated each calendar month by adding the current calendar month's combined emissions to those of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0326; P-117-0220; P-117-0355]
  - iii. The Permittee shall keep records of the dates, times, and places of all emission testing done on this unit, 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-174-33(j)(1)(K)]
- 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  $\S 22a-174-33(j)(1)(X)$ ]

#### 3. Opacity

- a. Limitation or Restriction
  - i. The Permittee shall not cause any unit in GEU-2 to exceed 10 percent opacity (6-minute block average), as measured by 40 CFR Part 60, Appendix A, Reference Method 9. [P-117-0326; P-117-0220; P-117-0355]
  - ii. The Permittee shall not permit visible emissions to exceed the following limitation: [RCSA §22a-174-18(b)(1)(B)]
    - (A) 40 percent as measured by 40 CFR Part 60, Reference Method 9, Appendix A, reduced to a one-minute block average.

#### b. Monitoring and Testing Requirements

The Permittee shall conduct subsequent performance tests as requested by the Administrator/commissioner, to determine compliance with the opacity standards using the procedures and reference methods specified in 40 CFR §§60.45c(a) and 60.47(c).

[40 CFR §60.45c(a); P-117-0326; P-117-0220; P-117-0355]

- c. Record Keeping Requirements
  - i. The Permittee shall maintain records of opacity tests required in Section III.B.3.b of this Title V permit. Such records shall include the dates, times, and places of all visible emissions observations, persons performing the observations, test methods used, the operating conditions at the time of the observation, and the results of such observations. [RCSA §22a-174-33(j)(1)(K)]
  - ii. The Permittee shall keep records of the dates, times, and places of all emission testing done on this unit, 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-174-33(j)(1)(K)]
- d. Reporting Requirements
  - i. The Permittee shall submit excess emission reports for any excess emissions from the emissions units that occur during the reporting period in accordance with 40 CFR §60.48c(c). [40 CFR §60.48c(c)]
  - 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. For EU-5 and 6, the SO<sub>2</sub> emissions from each boiler shall not exceed the following at any time when firing natural gas. [P-117-0326; P-117-0220]
    - (A) 0.046 lb/hr
    - (B) 0.0006 lb/MMBtu
    - (C) 0.2 tpy
  - ii. For EU-8, the  $SO_2$  emissions shall not exceed the following at any time when firing natural gas. [P-117-0355]
    - (A) 0.05 lb/hr
    - (B) 0.0006 lb/MMBtu
    - (C) 0.22 tpy
  - iii. For EU-5 and 6, the SO<sub>2</sub> emissions from each boiler shall not exceed the following at any time when firing distillate oil. [P-117-0326; P-117-0220]
    - (A) 3.83 lb/hr
    - (B) 0.052 lb/MMBtu

- (C) 16.8 tpy
- iv. For EU-8, the SO<sub>2</sub> emissions shall not exceed the following at any time when firing distillate oil. [P-117-0355]
  - (A) 4.25 lb/hr
  - (B) 0.052 lb/MMBtu
  - (C) 18.63 tpy
- vii. The combined  $SO_2$  emissions for EU-1 and GEU-2 shall not exceed 44.43 tpy. [P-117-0326; P-117-0220; P-117-0355]
- b. Monitoring and Testing Requirements
  - i. Compliance with the emission limits or fuel oil sulfur limits shall be determined by the Permittee based on a certification from the fuel supplier. [40 CFR §60.42c(h)(1)]
  - ii. If the Permittee seeks to demonstrate compliance with 40 CFR Part 60 Subpart Dc SO<sub>2</sub> standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier. [40 CFR §60.44c(h)]
- c. Record Keeping Requirements
  - i. The Permittee shall maintain a record of monthly and annual SO<sub>2</sub> emissions for each unit in GEU-2 separately. The monthly emissions shall be calculated using emission factors obtained from the latest version of AP-42 and the fuel usage. Annual emissions shall be calculated each calendar month by adding the current calendar month's emissions for each unit to those of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0326; P-117-0220; P-117-0355]
  - ii. The Permittee shall maintain a record of monthly and annual SO<sub>2</sub> emissions for EU-1 and GEU-2 combined. The monthly emissions shall be calculated using emission factors obtained from the latest version of AP-42 and the fuel usage. Annual emissions shall be calculated each calendar month by adding the current calendar month's combined emissions to those of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month and the annual calculation for the previous year by January 31 of the current year. [P-117-0326; P-117-0220; P-117-0355]

## d. Reporting Requirements

- i. The Permittee shall submit to the Administrator the performance test data from the initial and any subsequent performance tests. [40 CFR §60.48c(b)]
- ii. The reporting period for the reports required under 40 CFR Part 60 Subpart Dc is each six-month period. All reports shall be submitted to the commissioner and/or the Administrator and shall be postmarked by the 30th day following the end of the reporting period. [40 CFR §60.48c(j)]
- iii. The Permittee shall submit reports to the commissioner and/or the Administrator. The fuel supplier certification reports shall include the following information: [40 CFR §\$60.48c(d) and (f)]
  - (A) The name of the oil supplier;
  - (B) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR §60.41c; and
  - (C) The sulfur content or maximum sulfur content of the oil.
- 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)]

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

- a. Limitation or Restriction
  - i. For EU-5 and 6, the NO<sub>x</sub> emissions from each boiler shall not exceed the following at any time when firing natural gas. [P-117-0326; P-117-0220]
    - (A) 3.05 lb/hr [P-117-0326; P-117-0220]
    - (B) 0.040 lb/MMBtu [P-117-0326; P-117-0220]
    - (C) Prior to June 1, 2023: 0.20 lb/MMBtu [RCSA §22a-174-22e(d)(3)(A)]
    - (D) On and after June 1, 2023: 0.05 lb/MMBtu [RCSA §22a-174-22e(d)(3)(C)]
    - (E) 13.4 tpy [P-117-0326; P-117-0220]
  - ii. For EU-8, the  $NO_x$  emissions shall not exceed the following at any time when firing natural gas. [P-117-0355]
    - (A) 3.42 lb/hr [P-117-0355]
    - (B) 0.040 lb/MMBtu [P-117-0355]
    - (C) Prior to June 1, 2023: 0.20 lb/MMBtu [RCSA §22a-174-22e(d)(3)(A)]
    - (D) On and after June 1, 2023: 0.05 lb/MMBtu [RCSA §22a-174-22e(d)(3)(C)]
    - (E) 15.0 tpy [P-117-0355]
  - iii. For EU-5 and 6, the NO<sub>x</sub> emissions from each boiler shall not exceed the following at any time when firing distillate oil. [P-117-0326; P-117-0220]
    - (A) 8.82 lb/hr [P-117-0326; P-117-0220]
    - (B) 0.120 lb/MMBtu [P-117-0326; P-117-0220]
    - (C) Prior to June 1, 2023: 0.20 lb/MMBtu [RCSA §22a-174-22e(d)(3)(A)]
    - (D) On and after June 1, 2023: 0.10 lb/MMBtu [RCSA §22a-174-22e(d)(3)(C)]
    - (E) 38.6 tpy [P-117-0326; P-117-0220]
  - iv. For EU-8, the  $NO_x$  emissions shall not exceed the following at any time when firing distillate oil. [P-117-0355]
    - (A) 9.78 lb/hr [P-117-0355]
    - (B) 0.120 lb/MMBtu [P-117-0355]
    - (C) Prior to June 1, 2023: 0.20 lb/MMBtu [RCSA §22a-174-22e(d)(3)(A)]
    - (D) On and after June 1, 2023: 0.10 lb/MMBtu [RCSA §22a-174-22e(d)(3)(C)]
    - (E) 42.9 tpy [P-117-0355]
  - v. The Permittee shall not allow total actual annual  $NO_x$  emissions from EU-1 and GEU-2 to exceed 116.6 tons. [P-117-0326; P-117-0320; P-117-0355]
- b. Monitoring and Testing Requirements
  - i. The Permittee shall conduct recurring stack testing for  $NO_x$  every five years. [P-117-0326; P-117-0220; P-117-0355]
- c. Record Keeping Requirements
  - i. The Permittee shall maintain a record of monthly and actual annual NO<sub>x</sub> emissions for each unit of EU-1 and GEU-2 separately. The monthly emissions shall be calculated using emission factors obtained from the latest stack test or if unavailable, manufacturer's emissions data and the fuel usage. Annual emissions shall be calculated each calendar month by adding the current calendar month's emissions for each unit to those of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0326; P-117-0220; P-117-0355]
  - ii. The Permittee shall keep records of all tune-ups, repairs, replacement of parts and other maintenance

done on each unit in GEU-2. [RCSA §22a-174-22e(j)(2)(B)]

- iii. The Permittee shall keep the following records of each tune-up conducted pursuant to RCSA §22a-174-22e(i): [RCSA §22a-174-22e(j)(2)(E)]
  - (A) The date on which the emission unit is tuned-up; the name, title and affiliation of the person performing the tune-up, and a description of work performed; and
  - (B) The procedures used to inspect and perform adjustments.
- iv. The Permittee shall keep records of the dates, times, and places of all emission testing done on this unit, 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)]
- v. 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)]
- 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  $\S 22a-174-33(j)(1)(X)$ ]

#### 6. VOC

- a. Limitation or Restriction
  - i. For EU-5 and 6, the VOC emissions from each boiler shall not exceed the following at any time when firing natural gas. [P-117-0326; P-117-0220]
    - (A) 1.22 lb/hr
    - (B) 0.016 lb/MMBtu
    - (C) 5.34 tpy
  - ii. For EU-8, the VOC emissions shall not exceed the following at any time when firing natural gas. [P-117-0355]
    - (A) 0.43 lb/hr
    - (B) 0.005 lb/MMBtu
    - (C) 1.87 tpy
  - iii. For EU-5 and 6, the VOC emissions from each boiler shall not exceed the following at any time when firing distillate oil. [P-117-0326; P-117-0220]
    - (A) 0.29 lb/hr
    - (B) 0.0040 lb/MMBtu
    - (C) 0.47 tpy
  - iv. For EU-8, the VOC emissions shall not exceed the following at any time when firing distillate oil. [P-117-0355]
    - (A) 0.326 lb/hr
    - (B) 0.004 lb/MMBtu
    - (C) 0.52 tpy
  - v. The combined VOC emissions for EU-1 and GEU-2 shall not exceed 21.43 tpy. [P-117-0326; P-117-0220; P-117-0355]
- b. Monitoring and Testing Requirements

The Permittee shall conduct recurring stack testing for VOC every five years. [P-117-0326; P-117-0220; P-117-0355]

- c. Record Keeping Requirements
  - i. The Permittee shall maintain a record of monthly and annual VOC emissions for each unit in GEU-2 separately. The monthly emissions shall be calculated using emission factors obtained from the latest version of AP-42 and the fuel usage. Annual emissions shall be calculated each calendar month by adding the current calendar month's emissions for each unit to those of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0326; P-117-0220; P-117-0355]
  - ii. The Permittee shall maintain a record of monthly and annual VOC emissions for EU-1 and GEU-2 combined. The monthly emissions shall be calculated using emission factors obtained from the latest version of AP-42 and the fuel usage. Annual emissions shall be calculated each calendar month by adding the current calendar month's combined emissions to those of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month and the annual calculation for the previous year by January 31 of the current year.

    [P-117-0326; P-117-0220; P-117-0355]
  - iii. The Permittee shall keep records of the dates, times, and places of all emission testing done on this unit, 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-174-33(j)(1)(K)]
- 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. For EU-5 and 6, the CO emissions from each boiler shall not exceed the following at any time when firing natural gas. [P-117-0326; P-117-0220]
    - (A) 5.56 lb/hr
    - (B) 0.073 lb/MMBtu
    - (C) 24.4 tpy
  - ii. For EU-8, the CO emissions shall not exceed the following at any time when firing natural gas. [P-117-0355]
    - (A) 7.01 lb/hr
    - (B) 0.082 lb/MMBtu
    - (C) 30.7 tpy
  - iii. For EU-5 and 6, the CO emissions from each boiler shall not exceed the following at any time when firing distillate oil. [P-117-0326; P-117-0220]
    - (A) 2.66 lb/hr
    - (B) 0.036 lb/MMBtu
    - (C) 11.66 tpy
  - iv. For EU-8, the CO emissions shall not exceed the following at any time when firing distillate oil. [P-117-0355]
    - (A) 2.95 lb/hr
    - (B) 0.036 lb/MMBtu
    - (C) 12.94 tpy
  - v. The combined CO emissions for EU-1 and GEU-2 shall not exceed 130.5 tpy.

[P-117-0326; P-117-0220; P-117-0355]

b. Monitoring and Testing Requirements

The Permittee shall conduct recurring stack testing for CO every five years. [P-117-0326; P-117-0220; P-117-0355]

- c. Record Keeping Requirements
  - i. The Permittee shall maintain a record of monthly and annual CO emissions for each unit in GEU-2 separately. The monthly emissions shall be calculated using emission factors obtained from the latest version of AP-42 and the fuel usage. Annual emissions shall be calculated each calendar month by adding the current calendar month's emissions for each unit to those of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P-117-0326; P-117-0220; P-117-0355]
  - ii. The Permittee shall maintain a record of monthly and annual CO emissions for EU-1 and GEU-2 combined. The monthly emissions shall be calculated using emission factors obtained from the latest version of AP-42 and the fuel usage. Annual emissions shall be calculated each calendar month by adding the current calendar month's combined emissions to those of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month and the annual calculation for the previous year by January 31 of the current year. [P-117-0326; P-117-0220; P-117-0355]
  - iii. The Permittee shall keep records of the dates, times, and places of all emission testing done on this unit, 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-174-33(j)(1)(K)]
- 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. 40 CFR Part 63 Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

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 firing 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.

[40 CFR §63.11201(b); Table 2, Condition 4 of 40 CFR Part 63 Subpart JJJJJJ; 40 CFR §63.11223(a)]

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 JJJJJJ 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 JJJJJJ 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

- The Permittee shall prepare a biennial 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 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. EMISSIONS UNIT 7 - Binks 2001 HVLP Spray Coating Unit

# 1. VOC Containing Coatings

a. Limitation or Restriction

The Permittee shall limit purchase for the premises of VOC containing coatings, including diluents and cleanup solvents but excluding water, to equal to or less than 1,500 gallons in any calendar year. [RCSA §22a-174-3c(b)(10)]

b. Monitoring and Testing Requirements

Record keeping specified in Section III.C.1.c of this Title V permit shall be sufficient to meet other Monitoring and Testing Requirements pursuant to RCSA §22a-17-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

- c. Record Keeping Requirements
  - The Permittee shall maintain purchase records to demonstrate compliance with applicable coating and solvent limitations. [RCSA §22a-174-3c(c)(1)]
  - ii. The Permittee shall make purchase records maintained available to the commissioner to inspect and copy upon request. [RCSA  $\S 22a-174-3c(c)(2)$ ]
- 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  $\S 22a-174-33(j)(1)(X)$ ]

# D. GROUPED EMISSIONS UNIT 3 - Solar Turbines and Duct Burners with SCR, Low NOx Burner and CO oxidation Catalyst (EU-9, EU-10) [P-117-0369; P-117-0370]

#### 1. Fuel

- a. Limitation or Restriction
  - i. The allowable fuel types are natural gas and distillate oil for the turbines and natural gas for the duct burners. [P-117-0369; P-117-0370]
  - ii. The maximum sulfur content of the distillate oil shall not exceed 0.0015% by weight, dry basis. [P-117-0369; P-117-0370; RCSA 22a-174-19b]

- iii. The combined annual fuel consumption for GEU-3 shall not exceed 1,300,094 gallons of No.2 fuel oil and 1,563.2 MMft<sup>3</sup> of natural gas for the turbines and 1,150.8 MMft<sup>3</sup> for the duct burners. [P-117-0369; P-117-0370]
- iv. The Permittee shall not burn in any of the turbines any fuel which contains total potential sulfur emissions in excess of 0.06 lb SO<sub>2</sub> /MMBtu heat input. This requirement shall be met when firing natural gas or distillate oil. [40 CFR §60.4330(a)(2)]

#### b. Monitoring and Testing Requirements

- i. The Permittee shall use individual non-resettable totalizing fuel metering devices to continuously monitor the natural gas and distillate oil feed to each turbine and the natural gas feed to each duct burner. [P-117-0369; P-117-0370]
- ii. Each fuel flow meter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. [40 CFR §60.4345(c)]
- iii. The Permittee shall use one of the following sources of information to demonstrate the sulfur content of the fuel combusted in the turbine: [40 CFR §60.4365]
  - (A) The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content for oil use is 0.0015 weight percent (15 ppmw) or less, the total sulfur content for natural gas use is 20 grains of sulfur or less per 100 standard cubic feet, has potential sulfur emissions of less than less than 26 ng SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/MMBtu) heat input; or
  - (B) The Permittee shall conduct the initial and subsequent performance tests for sulfur in accordance with 40 CFR § 60.4415. [40 CFR §60.4415]
- iv. Sulfur content shall be analyzed in accordance with American Society for Testing and Material (ASTM) test method D4294-10, *Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy Dispersive X-ray Fluorescence Spectrometry*, or D7039-07, *Standard Test Method for Sulfur in Gasoline and Diesel Fuel by Monochromatic Wavelength Dispersive X-ray Fluorescence Spectrometry*, or the current active version thereof, and automatic sampling equipment shall conform to ASTM test method D4177-95(2010), *Standard Practice for Automatic Sampling of Petroleum and Petroleum Products*, or the current active version thereof. [RCSA 22a-174-19b(f)(3)]

## c. Record Keeping Requirements

- i. The Permittee shall keep records of monthly and consecutive 12 month fuel consumption for both turbines, separately and combined and both duct burners, separately and combined. The consecutive 12 month fuel consumption shall be determined by adding (for each fuel) the current month's combined 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. Fuel consumption records shall be kept independently for each turbine and duct burner. [P-117-0369; P-117-0370]
- ii. 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-117-0369; P-117-0370; RCSA 22a-174-19b]

#### 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  $\S 22a-174-33(j)(1)(X)$ ]

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

- a. Limitation or Restriction
  - i. The PM<sub>10</sub>/PM<sub>2.5</sub> emissions from each turbine shall not exceed the following at any time when firing natural gas except during periods of startup, shutdown and fuel switching, unless otherwise noted. [P-117-0369; P-117-0370]
    - (A) 1.91 lb/hr
    - (B) 0.02 lb/MMBtu. This emission limit applies at all times.
  - ii. The PM<sub>10</sub>/PM<sub>2.5</sub> emissions from each turbine shall not exceed the following at any time when firing distillate oil except during periods of startup, shutdown and fuel switching, unless otherwise noted. [P-117-0369; P-117-0370]
    - (A) 3.24 lb/hr
    - (B) 0.04 lb/MMBtu. This emission limit applies at all times.
  - iii. The PM<sub>10</sub>/PM<sub>2.5</sub> emissions from each turbine with duct burner shall not exceed the following at any time when both turbine and duct burner are firing natural gas except during periods of startup, shutdown and fuel switching, unless otherwise noted. [P-117-0369; P-117-0370]
    - (A) 2.41 lb/hr
    - (B) 0.02 lb/MMBtu. This emission limit applies at all times.
  - iv. The PM<sub>10</sub>/PM<sub>2.5</sub> emissions from each turbine with duct burner shall not exceed the following at any time when the turbine is firing distillate oil and the duct burner is firing natural gas except during periods of startup, shutdown and fuel switching, unless otherwise noted.

    [P-117-0369: P-117-0370]
    - (A) 3.74 lb/hr
    - (B) 0.03 lb/MMBtu. This emission limit applies at all times.
  - v. The total maximum annual PM<sub>10</sub>/PM<sub>2.5</sub> emissions (including startup, shutdown and fuel switching events) from GEU-3. [P-117-0369; P-117-0370]
    - (A) 22.6 tpy
- b. Monitoring and Testing Requirements
  - i. Demonstration of compliance with the emission limits in Section III.D.2.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources. [P-117-0369; P-117-0370]:
    - (A) Turbine/Duct Burner

PM<sub>10</sub>/PM<sub>2.5</sub>: Stack test results

- ii. The commissioner may require other means to demonstrate compliance with emission limits in Section III.D.2.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0369; P-117-0370]
- c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month  $PM_{10}/PM_{2.5}$  emissions for both units in GEU-3 combined. The consecutive 12 month emissions shall be determined by adding the current month's combined 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. [P-117-0369, 117-0370]

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  $\S 22a-174-33(j)(1)(X)$ ]

#### 3. Opacity

- a. Limitation or Restriction
  - The Permittee shall not cause any unit in GEU-3 to exceed 10 percent opacity (6-minute block average), as measured by 40 CFR Part 60, Appendix A, Reference Method 9. [P-117-0369, 117-0370]
  - ii. The Permittee shall not permit visible emissions to exceed the following limitation: [RCSA §22a-174-18(b)(1)(B)]
    - (A) 40 percent as measured by 40 CFR Part 60, Reference Method 9, Appendix A, reduced to a one-minute block average.
- b. Monitoring and Testing Requirements

The Permittee shall conduct subsequent performance tests as requested by the Administrator/commissioner, to determine compliance with the opacity standards. [RCSA §22a-174-33(j)(1)(K)(ii)]

- c. Record Keeping Requirements
  - i. The Permittee shall maintain records of opacity tests. Such records shall include the dates, times, and places of all visible emissions observations, persons performing the observations, test methods used, the operating conditions at the time of the observation, and the results of such observations. [RCSA §22a-174-33(j)(1)(K)]
  - ii. The Permittee shall keep records of the dates, times, and places of all emission testing done on this unit, 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-174-33(j)(1)(K)]
- 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  $\S 22a-174-33(j)(1)(X)$ ]

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

- a. Limitation or Restriction
  - The SO<sub>2</sub> emissions from each turbine shall not exceed the following at any time when firing natural gas except during periods of startup, shutdown and fuel switching. [P-117-0369; P-117-0370]
     (A) 0.31 lb/hr
  - ii. The SO<sub>2</sub> emissions from each turbine shall not exceed the following at any time when firing distillate oil except during periods of startup, shutdown and fuel switching. [P-117-0369; P-117-0370]
     (A) 0.13 lb/hr
  - iii. The SO<sub>2</sub> emissions from each turbine with duct burner shall not exceed the following at any time when both turbine and duct burner are firing natural gas except during periods of startup, shutdown and fuel switching. [P-117-0369; P-117-0370]
    - (A) 0.35 lb/hr
  - iv. The SO<sub>2</sub> emissions from each turbine with duct burner shall not exceed the following at any time when the turbine is firing distillate oil and the duct burner is firing natural gas except during periods of startup, shutdown and fuel switching. [P-117-0369; P-117-0370]
    - (A) 0.17 lb/hr
  - v. The total maximum annual  $SO_2$  emissions (including startup, shutdown and fuel switching events) from GEU-3 [P-117-0369; P-117-0370]

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(A) 3.1 tpy.

- b. Monitoring and Testing Requirements
  - i. Demonstration of compliance with the emission limits in Section III.D.4.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources. [P-117-0369; P-117-0370]:
    - (A) Turbine/Duct Burner
      - SO<sub>2</sub>: Compilation of Air Pollutant Emission Factors, AP-42, fifth edition, Section 3.1, April 2000 (turbine) and Section 1.4, July 1998 (duct burners).
  - ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.D.4.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0369; P-117-0370]
- c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month  $SO_2$  emissions for both units in GEU-3 combined. The consecutive 12 month emissions shall be determined by adding the current month's combined 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. [P-117-0369, 117-0370]

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. $NO_x$

- a. Limitation or Restriction
  - i. The NO<sub>x</sub> emissions from each turbine shall not exceed the following at any time when firing natural gas except during periods of startup, shutdown and fuel switching.
    - (A) 0.67 lb/hr [P-117-0369; P-117-0370]
    - (B) 2.0 ppmvd @ 15% O<sub>2</sub> [P-117-0369; P-117-0370]
    - (C) Prior to June 1, 2023: 42 ppmvd @ 15% O<sub>2</sub>, daily block average [RCSA §22a-174-22e(d)(5)(A)]
    - (D) On and after June 1, 2023: 25 ppmvd @ 15% O<sub>2</sub>, daily block average [RCSA §22a-174-22e(d)(5)(C)]
    - (E)  $\leq$  25.0 ppmvd @15% O<sub>2</sub>, 4-hour rolling average and 30 day rolling average [40 CFR 60 Subpart KKKK]
  - ii. The NO<sub>x</sub> emissions from each turbine shall not exceed the following at any time when firing distillate oil except during periods of startup, shutdown and fuel switching.
    - (A) 3.23 lb/hr [P-117-0369; P-117-0370]
    - (B) 9.6 ppmvd @ 15% O<sub>2</sub> [P-117-0369; P-117-0370]
    - (C) Prior to June 1, 2023: 65 ppmvd @ 15% O<sub>2</sub>, daily block average [RCSA §22a-174-22e(d)(5)(A)]
    - (D) On and after June 1, 2023: 42 ppmvd @ 15% O<sub>2</sub>, daily block average [RCSA §22a-174-22e(d)(5)(C)]
    - (E)  $\leq$  74 ppmvd @ 15% O<sub>2</sub>, 4-hour rolling average and 30 day rolling average [40 CFR 60 Subpart KKKK]
  - iii. The NO<sub>x</sub> emissions from each turbine with duct burner shall not exceed the following at any time when both turbine and duct burner are firing natural gas except during periods of startup, shutdown and fuel switching. [P-117-0369; P-117-0370]

- (A) 1.16 lb/hr
- (B) 2.0 ppmvd @ 15% O<sub>2</sub>
- (C) Prior to June 1, 2023: 42 ppmvd @ 15% O<sub>2</sub>, daily block average [RCSA §22a-174-22e(d)(5)(A)]
- (D) On and after June 1, 2023: 25 ppmvd @ 15% O<sub>2</sub>, daily block average [RCSA §22a-174-22e(d)(5)(C)]
- iv. The NO<sub>x</sub> emissions from each turbine with duct burner shall not exceed the following at any time when the turbine is firing distillate oil and the duct burner is firing natural gas except during periods of startup, shutdown and fuel switching. [P-117-0369; P-117-0370]
  - (A) 5.70 lb/hr
  - (B) 9.6 ppmvd @ 15% O<sub>2</sub>
  - (C) Prior to June 1, 2023: 65 ppmvd @ 15% O<sub>2</sub>, daily block average [RCSA §22a-174-22e(d)(5)(A)]
  - (D) On and after June 1, 2023: 42 ppmvd @ 15%  $O_2$ , daily block average [RCSA 22a-174-22e(d)(5)(C)]
- v. The total maximum annual NO<sub>x</sub> emissions (including startup, shutdown and fuel switching events) from GEU-3 [P-117-0369; P-117-0370]
  - (A) 15.1 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-174-22e(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-174-4, RCSA §22a-174-22e, 40 CFR Part 60 Subpart KKKK. [P-117-0369; P-117-0370]
  - iv. The averaging times shall be 24 hours rolling for the  $NO_x$  CEMS and 1-hour block for the  $O_2$  CEMS. [P-117-0369; P-117-0370]
  - v. Demonstration of compliance with the emission limits in Section III.D.5.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources. [P-117-0369; P-117-0370]:
    - (A) Turbine: CEMS data
    - (B) Duct Burner: CEMS data
  - vi. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with emission limits in Section III.D.5.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0369; P-117-0370]
- 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)]
- v. 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-3. 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.D.5.a.v of this Title V permit. [P-117-0369; P-117-0370]

#### 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 NOx CEMS. [RCSA §22a-174-22e(m)(4)]
- v. The Permittee shall submit required reports pursuant to 40 CFR §60.4375.
- 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/HC

- a. Limitation or Restriction
  - The VOC/HC emissions from each turbine shall not exceed the following at any time when firing natural gas except during periods of startup, shutdown and fuel switching. [P-117-0369; P-117-0370]
     (A) 0.58 lb/hr
  - ii. The VOC/HC emissions from each turbine shall not exceed the following at any time when firing distillate oil except during periods of startup, shutdown and fuel switching. [P-117-0369; P-117-0370]
     (A) 2.82 lb/hr
  - iii. The VOC/HC emissions from each turbine with duct burner shall not exceed the following at any time when both turbine and duct burner are firing natural gas except during periods of startup, shutdown and fuel switching. [P-117-0369; P-117-0370]
    - (A) 0.94 lb/hr
  - iv. The VOC/HC emissions from each turbine with duct burner shall not exceed the following at any time when the turbine is firing distillate oil and the duct burner is firing natural gas except during periods of startup, shutdown and fuel switching. [P-117-0369; P-117-0370]
    - (A) 3.18 lb/hr
  - v. The total maximum annual VOC/HC emissions (including startup, shutdown and fuel switching events) from GEU-3 [P-117-0369; P-117-0370]
    - (A) 10.7 tpy.
- b. Monitoring and Testing Requirements
  - i. Demonstration of compliance with the emission limits in Section III.D.3.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources. [P-117-0369; P-117-0370]:
    - (A) Turbine/Duct Burner

VOC/HC: Stack test results

- ii. The commissioner may require other means to demonstrate compliance with emission limits in Section III.D.6.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0369; P-117-0370]
- c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month VOC/HC emissions for both units in GEU-3 combined. The consecutive 12 month emissions shall be determined by adding the current month's combined 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. [P-117-0369, 117-0370]

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 CO emissions from each turbine shall not exceed the following at any time when firing natural gas except during periods of startup, shutdown and fuel switching. [P-117-0369; P-117-0370]
    - (A) 1.02 lb/hr
    - (B) 5.0 ppmvd @ 15% O<sub>2</sub>

- ii. The CO emissions from each turbine shall not exceed the following at any time when firing distillate oil except during periods of startup, shutdown and fuel switching. [P-117-0369; P-117-0370]
  - (A) 0.98 lb/hr
  - (B) 5.0 ppmvd @ 15% O<sub>2</sub>
- iii. The CO emissions from each turbine with duct burner shall not exceed the following at any time when both turbine and duct burner are firing natural gas except during periods of startup, shutdown and fuel switching. [P-117-0369; P-117-0370]
  - (A) 1.77 lb/hr
  - (B) 5.0 ppmvd @ 15% O<sub>2</sub>
- iv. The CO emissions from each turbine with duct burner shall not exceed the following at any time when the turbine is firing distillate oil and the duct burner is firing natural gas except during periods of startup, shutdown and fuel switching. [P-117-0369; P-117-0370]
  - (A) 1.73 lb/hr
  - (B) 5.0 ppmvd @ 15% O<sub>2</sub>
- v. The total maximum annual CO emissions (including startup, shutdown and fuel switching events) from GEU-3 [P-117-0369; P-117-0370]
  - (A) 15.5 tpy.
- b. Monitoring and Testing Requirements
  - i. Demonstration of compliance with the emission limits in Section III.D.7.a of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources. [P-117-0369; P-117-0370]:
    - (A) Turbine/Duct Burner
      - CO: Stack test results
    - (B) Event based emissions to be added to the annual CO emission rate, natural gas firing, lb/event
      - (1) Startup: 11.3
      - (2) Shutdown: 11.8
      - (3) Fuel Switching: 8.6
    - (C) Event based emissions to be added to the annual CO emission rate, distillate oil firing, lb/event
      - (1) Startup: 8.6
      - (2) Shutdown: 7.9
      - (3) Fuel Switching: 11.3
  - ii. The Permittee shall conduct stack testing for CO, for all operating modes, within five years from the date of the previous stack test to demonstrate compliance with the limits given in Section III.D.7 of this Title V permit. DEEP retains the right to require stack testing of any pollutant at any time to demonstrate compliance. Stack test results for CO shall be reported in units of ppmvd at 15% O<sub>2</sub>. [P-117-0369, 117-0370]
  - iii. The commissioner may require other means to demonstrate compliance with emission limits in Section III.D.7.a of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0369; P-117-0370]
- c. Record Keeping Requirements
  - i. The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions for both units in GEU-3 combined. The consecutive 12 month emissions shall be determined by adding the current month's combined 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. [P-117-0369, 117-0370]

ii. The Permittee shall keep records of each stack test performed for CO. [P-117-0369, 117-0370]

#### 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
  - i. The ammonia emissions from each turbine shall not exceed the following at any time when firing natural gas or distillate oil. [P-117-0369; P-117-0370]
    - (A) 5.0 ppmvd @ 15% O<sub>2</sub>
  - ii. The Permittee shall start the ammonia injection as soon as minimum catalyst temperature is reached. [P-117-0369, 117-0370]
  - iii. The oxidation catalyst shall not be bypassed during startup, shutdown or fuel switching. [P-117-0369, 117-0370]
- b. Monitoring and Testing Requirements
  - i. Demonstration of compliance with the emission limits in Section III.D.8.a.i of this Title V permit shall be met by calculating the emission rates using emission factors from the following sources. [P-117-0369; P-117-0370]:
    - (A) Turbine/Duct Burner

Ammonia: Stack test results

- ii. The Permittee shall conduct stack testing for ammonia, for all operating modes, within five years from the date of the previous stack test to demonstrate compliance with the limits given in Section III.D.8.a.i of this Title V permit. DEEP retains the right to require stack testing of any pollutant at any time to demonstrate compliance. Stack test results for ammonia shall be reported in units of µg/m³ and ppmvd at 15% O₂ [P-117-0369; P-117-0370]
- iii. The Permittee shall continuously monitor and continuously record the SCR aqueous ammonia injection rate (lb/hr), operating temperature (°F) and 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.D of this Title V permit. [P-117-0369: P-117-0370]
- iv. The Permittee shall continuously monitor and continuously record the oxidation catalyst inlet temperature (°F). The Permittee shall maintain this parameter within the range recommended by the manufacturer to achieve compliance with the emission limits in Sections III.D of this Title V permit. [P-117-0369; P-117-0370]
- v. The Permittee shall perform inspections of the SCR and oxidation catalysts as recommended by the manufacturer. [P-117-0369; P-117-0370]
- vi. The commissioner may require other means to demonstrate compliance with emission limits in Section III.D.8.a.i of this Title V permit, as allowed by state or federal statute, law or regulation. [P-117-0369; P-117-0370]
- vii. The Permittee shall operate and maintain this equipment, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, fuel switching and malfunction. [P-117-0369; P-117-0370]

- c. Record Keeping Requirements
  - i. The Permittee shall keep records of each delivery of aqueous ammonia. The records shall include the following: [P-117-0369; P-117-0370]
    - (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 keep records of the inspection and maintenance of the SCR and oxidation catalysts. The records shall include: [P-117-0369; P-117-0370]
    - (A) the name of the person;
    - (B) the date;
    - (C) the results or actions; and
    - (D) the date the catalyst is replaced.
  - iii. The Permittee shall keep records of each stack test performed for ammonia. [P-117-0369; P-117-0370]
- 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, Fuel Switching Events, Malfunctions and Exceedances

- a. Limitation or Restriction
  - i. Definitions and Durations [P-117-0369; P-117-0370]:
    - (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-117-0369; P-117-0370]
- b. Monitoring and Testing Requirements
  - i. 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-117-0369; P-117-0370]
  - ii. The Permittee shall comply with the monitoring requirements in RCSA Section 22a-174-22e, as applicable. [P-117-0369; P-117-0370]
- 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-117-0369; P-117-0370]

- (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-117-0369; P-117-0370]
  - (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-117-0369; P-117-0370]

#### 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-117-0369; P-117-0370]
  - (A) a description of the malfunction and a description of the circumstances surrounding the cause or likely cause of such malfunction; and
  - (B) a 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-117-0369; P-117-0370]
  - (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)]

# E. GROUPED EMISSIONS UNIT 5 – Emergency Generators (EU-16, EU-17, EU-19, EU-20, EU-23, EU-27)

# 1. Hours of Operation

- a. Limitation or Restriction
  - i. Operating hours of each emergency engine in GEU-5 shall not exceed 300 hours during any 12 month rolling aggregate and each emergency 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)(C)]
  - ii. Allowable periods of operation for emergency engines specified under RCSA §22a-174-22e(a)(13)

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include:

- (A) Emergencies;
- (B) Testing;
- (C) Scheduled maintenance;
- (D) When the facility owner or operator interrupts power to the facility to perform construction, maintenance or repair of the power distribution system for the facility or portion of the facility; or
- (E) When the electricity supplier makes a scheduled interruption of power to the facility so that the electricity supplier may perform construction, maintenance or repair of the primary power distribution system for the facility. [RCSA §\$22a-174-3b(a)(6) and -22e(a)(13)]
- iii. The owner or operator of an emergency engine shall not operate the emergency engine 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 owner or operator is no longer prohibited from operating the engine for routine, scheduled testing or maintenance for the remainder of that day. An owner or operator of an emergency engine 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 owner or operator to refrain from operation of the emergency engine at the facility on the following day.

  [RCSA §22a-174-22e(d)(14)]
  - (A) In accordance with RCSA §22a-174-22e(c)(3)(B), EU-16 is not subject to the operating restriction of Section III.E.1.a.iii of this Title V permit.
- b. Monitoring and Testing Requirements

The Permittee shall properly maintain equipment and operate such unit in accordance with RCSA §22a-174-3b(e). [RCSA §22a-174-3b(e)(1)]

- c. Record Keeping Requirements
  - i. The Permittee shall maintain records of the information necessary for the commissioner to determine compliance with the requirements of RCSA §22a-174-3b(e)(2). [RCSA §22a-174-3b(e)(3)]
  - ii. The Permittee shall make all records kept to determine compliance with RCSA §22a-174-3b(e) available to the commissioner to inspect and copy upon request. [RCSA §22a-174-3b(e)(3)(A)]
  - iii. The Permittee shall make and maintain records of the hours of operation for each month and each 12 month rolling aggregate. [RCSA §22a-174-3b(e)(4)]
  - iv. The Permittee shall keep records of total monthly operating hours, identifying the dates and operating hours of non-emergency use and reason for non-emergency operation. [RCSA §22a-174-22e(j)(2)(A)]
  - v. The Permittee shall keep records of all tune-ups, repairs, replacement of parts and other maintenance. [RCSA §22a-174-22e(j)(2)(B)]
  - 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 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 date specified by the commissioner whichever is earlier. [RCSA 22a-174-33(j)(1)(X)]

#### 2. Fuel

a. Limitation or Restriction

The Permittee shall not exceed the sulfur content of motor vehicle diesel fuel where "motor vehicle diesel fuel" is defined as in RCSA §22a-174-42 for any non-gaseous fuel consumed by any EU-in GEU-5. [RCSA §22a-174-3b(e)(2)(D)]

b. Monitoring and Testing Requirements

Record keeping specified in Section III.E.2.c of this Title V permit shall be sufficient to meet other Monitoring and Testing Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

- c. Record Keeping Requirements
  - i. The Permittee shall keep records to demonstrate compliance with Section III.E.2.a of this Title V permit. Any of the following are sufficient to demonstrate the sulfur content of fuel used: [RCSA §22a-174-3b(h)]
    - (A) A fuel certification for a delivery of nongaseous fuel from a bulk petroleum provider;
    - (B) A sales receipt for the sale of motor vehicle diesel fuel from a retail location; or
    - (C) A copy of a current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of nongaseous fuel as a condition of each shipment.
  - ii. 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-174-19b(g)(3)]
    - (A) The name of the fuel seller;
    - (B) The type of fuel purchased;
    - (C) The sulfur content of the fuel purchased; and
    - (D) 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)]

#### F. EMISSIONS UNIT 46 – 750 kW Caterpillar Emergency Generator (10 Amistad Street)

#### 1. Hours of Operation

- a. Limitation or Restriction
  - i. Operating hours shall not exceed 300 hours during any 12 month rolling aggregate and the emergency 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)(C)]
  - ii. Allowable periods of operation for emergency engines specified under RCSA §22a-174-22e(a)(13), include:
    - (A) Emergencies;
    - (B) Testing;
    - (C) Scheduled maintenance;
    - (D) When the facility owner or operator interrupts power to the facility to perform construction, maintenance or repair of the power distribution system for the facility or portion of the facility; or
    - (E) When the electricity supplier makes a scheduled interruption of power to the facility so that the electricity supplier may perform construction, maintenance or repair of the primary power

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distribution system for the facility. [RCSA §\$22a-174-3b(a)(6) and -22e(a)(13)]

iii. The owner or operator of an emergency engine shall not operate the emergency engine 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 owner or operator is no longer prohibited from operating the engine for routine, scheduled testing or maintenance for the remainder of that day. An owner or operator of an emergency engine 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 owner or operator to refrain from operation of the emergency engine at the facility on the following day. [RCSA §22a-174-22e(d)(14)]

#### b. Monitoring and Testing Requirements

The Permittee shall properly maintain equipment and operate such unit in accordance with RCSA §22a-174-3b(e). [RCSA §22a-174-3b(e)(1)]

- c. Record Keeping Requirements
  - i. The Permittee shall maintain records of the information necessary for the commissioner to determine compliance with the requirements of RCSA §22a-174-3b(e)(2). [RCSA §22a-174-3b(e)(3)]
  - ii. The Permittee shall make all records kept to determine compliance with RCSA §22a-174-3b(e) available to the commissioner to inspect and copy upon request. [RCSA §22a-174-3b(e)(3)(A)]
  - iii. The Permittee shall make and maintain records of the hours of operation for each month and each 12 month rolling aggregate. [RCSA §22a-174-3b(e)(4)]
  - iv. The Permittee shall keep records of total monthly operating hours, identifying the dates and operating hours of non-emergency use and reason for non-emergency operation. [RCSA §22a-174-22e(j)(2)(A)]
  - v. The Permittee shall keep records of all tune-ups, repairs, replacement of parts and other maintenance.  $[RCSA \S 22a-174-22e(j)(2)(B)]$
  - 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 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 date specified by the commissioner whichever is earlier. [RCSA 22a-174-33(1)(1)(X)]

#### 2. Fuel

a. Limitation or Restriction

The Permittee shall not exceed the sulfur content of motor vehicle diesel fuel where "motor vehicle diesel fuel" is defined as in RCSA §22a-174-42 for any non-gaseous fuel consumed by EU-46. [RCSA §22a-174-3b(e)(2)(D)]

b. Monitoring and Testing Requirements

Record keeping specified in Section III.F.2.c of this Title V permit shall be sufficient to meet other Monitoring and Testing Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

- c. Record Keeping Requirements
  - i. The Permittee shall keep records to demonstrate compliance with Section III.F.2.a of this Title V permit. Any of the following are sufficient to demonstrate the sulfur content of fuel used:

[RCSA §22a-174-3b(h)]

- (A) A fuel certification for a delivery of nongaseous fuel from a bulk petroleum provider;
- (B) A sales receipt for the sale of motor vehicle diesel fuel from a retail location; or
- (C) A copy of a current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of nongaseous fuel as a condition of each shipment.
- ii. 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-174-19b(g)(3)]
  - (A) The name of the fuel seller;
  - (B) The type of fuel purchased;
  - (C) The sulfur content of the fuel purchased; and
  - (D) 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 IIII – 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. [40 CFR §60.4205(b)]
  - ii. The Permittee shall operate and maintain EU-46 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. 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 40 CFR §60.4211(g):
    - (A) Operate and maintain the stationary compression 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)]
  - v. Permittee must operate EU-46 according to the requirements in 40 CFR §§60.4211(f)(1), (f)(2)(iii) and(f)(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), (f)(2)(iii) and(f)(3)., is prohibited. If you do not operate the engine according to the requirements in 40 CFR §§60.4211(f)(1), (f)(2)(iii) and(f)(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 and Testing 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 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]

#### 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 IIII, 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 22 – 150 kW Mitsubishi Emergency Generator (SHMI)

#### 1. Hours of Operation

- a. Limitation or Restriction
  - i. Operating hours of shall not exceed 300 hours during any 12 month rolling aggregate and the emergency 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)(C)]
  - ii. Allowable periods of operation for emergency engines specified under RCSA §22a-174-22e(a)(13), include:
    - (A) Emergencies;
    - (B) Testing;
    - (C) Scheduled maintenance;
    - (D) When the facility owner or operator interrupts power to the facility to perform construction, maintenance or repair of the power distribution system for the facility or portion of the facility; or
    - (E) When the electricity supplier makes a scheduled interruption of power to the facility so that the electricity supplier may perform construction, maintenance or repair of the primary power distribution system for the facility. [RCSA §§22a-174-3b(a)(6) and -22e(a)(13)]

#### b. Monitoring and Testing Requirements

The Permittee shall properly maintain equipment and operate such unit in accordance with RCSA §22a-174-3b(e). [RCSA §22a-174-3b(e)(1)]

- c. Record Keeping Requirements
  - i. The Permittee shall maintain records of the information necessary for the commissioner to determine compliance with the requirements of RCSA §22a-174-3b(e)(2). [RCSA §22a-174-3b(e)(3)]
  - ii. The Permittee shall make all records kept to determine compliance with RCSA §22a-174-3b(e) available to the commissioner to inspect and copy upon request. [RCSA §22a-174-3b(e)(3)(A)]
  - iii. The Permittee shall make and maintain records of the hours of operation for each month and each 12 month rolling aggregate. [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 date specified by the commissioner whichever is earlier. [RCSA 22a-174-33(1)(1)(X)]

#### 2. Fuel

a. Limitation or Restriction

The Permittee shall not exceed the sulfur content of motor vehicle diesel fuel where "motor vehicle diesel

fuel" is defined as in RCSA §22a-174-42 for any non-gaseous fuel consumed by any EU-in GEU-5. [RCSA §22a-174-3b(e)(2)(D)]

b. Monitoring and Testing Requirements

Record keeping specified in Section III.G.2.c of this Title V permit shall be sufficient to meet other Monitoring and Testing Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

- c. Record Keeping Requirements
  - The Permittee shall keep records to demonstrate compliance with Section III.G.2.a of this Title V permit. Any of the following are sufficient to demonstrate the sulfur content of fuel used: [RCSA §22a-174-3b(h)]
    - (A) A fuel certification for a delivery of nongaseous fuel from a bulk petroleum provider;
    - (B) A sales receipt for the sale of motor vehicle diesel fuel from a retail location; or
    - (C) A copy of a current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of nongaseous fuel as a condition of each shipment.
  - ii. 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-174-19b(g)(3)]
    - (A) The name of the fuel seller;
    - (B) The type of fuel purchased;
    - (C) The sulfur content of the fuel purchased; and
    - (D) 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)]

#### H. EMISSIONS UNIT 53 - Kohler Emergency Generator (470 Congress Ave)

# 1. 40 CFR Part 60 Subpart JJJJ – Standard of Performance for Stationary Spark Ignition Internal Combustion Engines [Federal]

- a. Limitation or Restriction
  - i. The Permittee shall comply with the emission 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-53 to achieve the emission standards as required in 40CFR §60.4233 over the entire life of the engine. [40 CFR §60.4234]
  - iii. The Permittee must operate each according to the requirements in 40 CFR §§60.4243(d)(1), (d)(2)(i) and (d)(3) in order for the engine to be considered an emergency stationary ICE under 40 CFR Part 60 Subpart JJJJ. There is no time limit on the use of emergency stationary ICE in emergency situations. Emergency stationary ICE may be operated for maintenance checks and readiness testing, for a maximum of 100 hours per calendar year, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. [40 CFR §§60.4243(d)]
- b. Monitoring Requirements

If EU-53 does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter. [40 CFR §60.4237(b)]

- c. Record Keeping Requirements
  - i. The Permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR § 60.4245(b)]
  - 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. 112(r) ACCIDENTAL RELEASE REQUIREMENTS

Should any of the units, as defined in 40 CFR §68.3, become subject to the accidental release prevention regulations in part 68, then the Permittee shall submit a risk management plan (RMP) pursuant to 40 CFR §68.12 by the date specified in 40 CFR §68.10 and shall certify compliance with the requirements of part 68 as part of the annual compliance certification as required by 40 CFR §70.6(c)(5).

# J. STRATOSPHERIC OZONE DEPLETING SUBSTANCES (40 CFR SUBPART 82) REQUIREMENTS

The Permittee shall comply with the standards for recycling and emissions reduction of products using ozone depleting substances pursuant to 40 CFR Part 82, Subpart F at the premises.

#### 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-174-4(d)(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 Dioxide Emissions:** The Permittee shall comply with the requirements for Control of Sulfur Dioxide Emissions from Power Plants and other large stationary sources of air pollution as set forth in RCSA §22a-174-19a.
- **16. 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.
- **17. Organic Compound Emissions:** The Permittee shall comply with the requirements for control of organic compound emissions as set forth in RCSA §22a-174-20.
- **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 and §22a-174-22f.
- **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).

## 23. Premises-Wide Annual NO<sub>x</sub> Emissions Limit

#### a. Limitation or Restriction

The Permittee shall not allow total actual annual  $NO_x$  emissions from this premises to exceed 116.6 tons. This limit includes emissions from all permitted and registered fuel burning equipment at the premises, any sources at the premises operating under Section 22a-174-3b of RCSA, and any other source of  $NO_x$  emissions at the premises. [P-117-0369, P-117-0370]

#### b. Monitoring Requirements

Record keeping specified in Section III.K.23.c of this Title V permit shall be sufficient to meet other Monitoring and Testing Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### c. Recordkeeping Requirements

The Permittee shall maintain a record of monthly and actual annual NOx emissions for all permitted and registered fuel burning equipment at the premises, any sources at the premises operating under Section 22a-174-3b of RCSA, and any other source of NOx emissions at the premises, combined. Compliance shall be determined on a rolling 12-month basis. The Permittee shall make records sufficient to document compliance with the limit in Section III.K.23.a of this Title V permit within ten days of the end of each month. [P-117-0369, P-117-0370]

#### d. Reporting Requirements

Any exceedance of the limit in Section III.K.23.a of this Title V permit shall be reported to the commissioner within ten days of the Permittee becoming aware of such exceedance. [P-117-0369, P-117-0370]

#### **Section IV: Compliance Assurance Monitoring (CAM)**

- A. Process/ Emissions Unit: EU-8 (81.54 MMBtu/hr (oil)/85.47 MMBtu/hr (gas) Nebraska Boiler No. 11 Model NOS-2A-81, S/N 0-4432)
  - A.1. Primary Pollutant: NOx
  - A.2. Control Technology: Flue Gas Recirculation (FGR)
  - A.3. Monitoring Requirements: Monitor windbox and exhaust  $O_2\%$  controlling the flue gas recirculation percent.
  - A.4. Applicable Regulation/Permit: P-117-0355
  - A.5. Applicable Requirements: Concentration of NOx shall not exceed 0.12 MMBtu/hr when firing distillate oil

## **Background:**

The facility operates three permitted Nebraska Boilers all grouped together (GEU-2). One of the boilers, EU-8, has a maximum heat input of 85.47 MMBtu/hr for natural gas and 81.54 MMBtu/hr for distillate oil while the other two boilers, EUs 5 and 6, each have a maximum heat input of 76.2 MMBtu/hr for natural gas and 73.5 MMBtu/hr for distillate oil. EU-8 meets the requirements for 40 CFR 64 by having potential pre-control emissions of the applicable regulated air pollutant (in this case NOx) when firing distillate oil that are equal to or greater than 100% of the amount, in tpy, required for a source to be classified as a major source (in this case for NOx, 50 tpy). The pollutant specific emissions unit, EU-8, is located at the Sterling Power Plant. The unit is equipped with a TODD Variflame V561G0XXX low NOx burner, a flue gas recirculation system and subject to 40 CFR 60 Subpart Dc.

The Permittee shall be responsible for the following actions listed in Table IV.A below.

Table IV.A: COMPLIANCE ASSURANCE MONITORING (CAM)		
	Indicator No. 1	Indicator No. 2
Indicator	Boiler exhaust (flue gas) and windbox (incoming combustion air) O <sub>2</sub> concentrations	FGR percent (%FGR)
Justification	The %FGR is maintained by using target values for the windbox O <sub>2</sub> concentration vs. the stack O <sub>2</sub> concentration.	The %FGR has an impact on NOx emissions. Generally, the greater the %FGR the greater the NOx reduction.  The position of the FGR damper is controlled automatically.
Measurement Approach	The boiler exhaust gas O <sub>2</sub> concentration is measured at the boiler outlet. The windbox O <sub>2</sub> concentration is measured at the boiler inlet.	The %FGR can be calculated with an equation based on the windbox O <sub>2</sub> concentration vs. the stack O <sub>2</sub> concentration.
Indicator Range or Designated Conditions	The values of windbox O <sub>2</sub> concentration and the stack O <sub>2</sub> concentration will be input into an equation (see equation 1 below) to determine the %FGR.	An excursion occurs when the %FGR is calculated below the target value.
Rationale for Selection of Indicator Ranges	Based on standard operating conditions for this boiler.	A target value of 0% was determined through emissions testing to be required to maintain NOx emissions within permit limits.

# **Section IV: Compliance Assurance Monitoring (CAM)**

Corrective Action	Adjust the average windbox O <sub>2</sub> concentration in order to achieve the desired %FGR.	If the %FGR is calculated below the target value based on a 30 day rolling average the facility will make adjustments to correct the excursion.  Activities may include: Check the calibration of the O <sub>2</sub> monitors, Inspect the operation of the FGR Damper, adjust controlling equipment and software to correct the condition.
Data Representativeness	O <sub>2</sub> monitors have a minimum accuracy of ±3% calibration error to zero and upscale reference gases.	%FGR>= 0%
QA/QC	Annual calibration of O <sub>2</sub> monitor.	None
Monitoring Frequency	The boiler exhaust and windbox O <sub>2</sub> concentrations are monitored continuously. Data will be captured and averaged on a daily basis.	The %FGR is calculated daily.
Averaging Periods	Hourly	Daily and 30-day rolling
Record Keeping	The Permittee shall keep continuous records of the boiler exhaust and windbox O <sub>2</sub> concentrations.  All records shall be maintained on the premises for a period of five years from the date such data and information were obtained. Such records and reports shall be available for inspection at reasonable hours by	The Permittee shall keep daily and 30-day rolling average values of the calculated %FGR and NOx emissions.  The Permittee shall keep records of all excursions occurrences.  All records shall be maintained on the premises for a period of five years from the date such data and information were
	the commissioner or the Administrator.	obtained. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator.
Reporting	The Permittee shall provide the records to the commissioner within 30 days of receipt of a written request from the commissioner or such sooner time as the commissioner may require.	The Permittee shall provide the records to the commissioner within 30 days of receipt of a written request from the commissioner or such sooner time as the commissioner may require.

%FGR Calculation Methodology:

 $\% FGR = ((20.9 \,/\, 100) - (Windbox\ O_2\ percent\ /\ 100)) / (Windbox\ O_2\ percent\ /\ 100) - Boiler\ exhaust\ O_3\ percent\ O_3\ percent\ /\ 100) - Boiler\ exhaust\ O_3\ percent\ O_3\ percent\$ 

NOx = relationship between NOx and %FGR-----2

# **Section V: Compliance Schedule**

No steps are required for achieving compliance at this time.		

#### Section VI: State Enforceable Terms and Conditions

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

#### SECTION VI: 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.** Noise: The Permittee shall operate in compliance with the regulations for the control of noise as set forth in RCSA §§22a-69-1 through 22a-69-7.4, inclusive.
- **F.** Hazardous Air Pollutants (HAPs): The Permittee shall operate in compliance with the regulations for the control of HAPs as set forth in RCSA §22a-174-29.

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.

#### SECTION VII: TITLE V REQUIREMENTS

#### 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,

- 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

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 -

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.

## 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.