

Connecticut Department of  
**ENERGY &  
 ENVIRONMENTAL  
 PROTECTION**

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

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

<b>Title V Permit Number</b>	117-0265-TV
<b>Client/Sequence/Town/Premises Numbers</b>	8856/4/117/551
<b>Date Issued</b>	October 13, 2020
<b>Revision Issue Date</b>	May 3, 2022
<b>Expiration Date</b>	October 13, 2025

**Corporation:**

GB II New Haven LLC

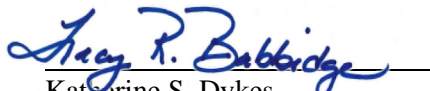
**Premises Location:**

New Haven Harbor Station, 600 Connecticut Avenue, New Haven, CT 06512

**Name of Responsible Official and Title:**

Arthur R. Mantell, Plant Manager

All the following attached pages, 2 through 87, are hereby incorporated by reference into this Title V permit.

  
 Katherine S. Dykes  
 Commissioner

for

May 3, 2022  
 Date

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## **Title V Operating Permit**

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

## LIST OF ABBREVIATIONS/ACRONYMS

<i>Abbreviation/Acronym</i>	<i>Description</i>
acf	Actual Cubic Feet
Bhp	Brake Horse Power
Btu	British Thermal Units
CAIR	Clean Air Interstate Rule
CBI	Confidential Business Information
CDX	Central Data Exchange
CEDRI	Compliance and Emissions Data Reporting Interface
CEMS	Continuous Emissions Monitoring System
CPMS	Continuous Parametric Monitoring System
CFR	Code of Federal Regulations
CGS	Connecticut General Statutes
CI	Compression Ignition
CMS	Continuous Monitoring System
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
CT DEEP	Connecticut Department of Energy and Environmental Protection
EPA	Environmental Protection Agency
ERT	Electronic Reporting Tool
ESP	Electrostatic Precipitator
EGU	Electric Utility Steam Generating Unit
EU	Emissions Unit
°F	Degree Fahrenheit
gal	Gallons
GEU	Grouped Emissions Unit
g	grams
gr	Grains
hr	Hour
ICE	Internal Combustion Engine
ISO-NE	Independent System Operator New England
J	Joules
kW	Kilowatt
L	Liters
lb	Pound
MACT	Maximum Achievable Control Technology
mcf	Thousand Cubic Feet
Mgal	Thousand Gallons

## LIST OF ABBREVIATIONS/ACRONYMS, continued

<i>Abbreviation/Acronym</i>	<i>Description</i>
MMBtu	Million British Thermal Units
MMft <sup>3</sup>	Million Cubic Feet
MMscf	Million Standard Cubic Feet
MW	Megawatt
NERC	North American Electric Reliability Corporation
NESHAP	National Emission Standards for Hazardous Air Pollutants
ng	Nanograms
NHHS	New Haven Harbor Station
NMHC	Non Methane Hydrocarbon
NO <sub>x</sub>	Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O <sub>2</sub>	Oxygen
Pb	Lead
PM	Particulate Matter
PM <sub>2.5</sub>	Particulate Matter less than 2.5 microns
PM <sub>10</sub>	Particulate Matter less than 10 microns
ppm	Parts per Million
ppmvd	Parts per Million Volume Dry
QA	Quality Assurance
RCSA	Regulations of Connecticut State Agencies
RICE	Reciprocating Internal Combustion Engine
scf	Standard Cubic Feet
SCR	Selective Catalytic Reduction
SIC	Standard Industrial Classification Code
SNCR	Selective Non Catalytic Reduction
SO <sub>2</sub>	Sulfur Dioxide
SO <sub>x</sub>	Sulfur Oxides
TPY	Tons per Year
ULSD	Ultra Low Sulfur Distillate
VOC	Volatile Organic Compound
yr	Year

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

### **A. PREMISES INFORMATION**

Nature of Business: Electricity Generation for Wholesale Sale

Primary SIC: 4911

Facility Mailing Address: GB II Connecticut, LLC  
600 Connecticut Avenue  
New Haven, CT 06512

Telephone Number: Mr. Joel Resig, 973-558-1526

### **B. PREMISES DESCRIPTION**

The New Haven Harbor Station (NHHS) is an exempt wholesale electric generating facility, owned and operated by GB II Connecticut LLC (GB II) with its principal place of business in Stamford, Connecticut. The NHHS encompasses approximately 43 acres of land on the eastern edge of New Haven Harbor. The property includes a marine bulk loading and unloading facility, two above ground petroleum storage tanks and the power generating station.

Electricity is generated at the facility through the Main Steam Generator, a tangentially-fired boiler currently rated at approximately 466 MW (megawatts) of electricity (net output). The boiler has the dual capacity to burn No. 6 and No. 2 fuel oil and/or natural gas.

Electricity is also generated by three General Electric LM6000PC combustion turbine generators to meet peak power demands and to alleviate network system ramp constraints in the area. Each combustion turbine generator utilizes natural gas and ultra-low sulfur distillate (ULSD) fuel. Each turbine is equipped with an oxidation catalyst for control of carbon monoxide (CO), formaldehyde and volatile organic compounds (VOC), and selective catalytic reduction (SCR) for control of nitrogen oxides (NO<sub>x</sub>).

The following Emission Units (EU) are also located at the facility: Auxiliary Steam Generator, Emergency Generator, Fire Pump Engine and Black Start Generator.

GB II is a Title V source as defined in RCSA §§22a-174-33(a)(10)(A) and (B) (subject to 40 CFR Parts 60, 61 and 63 and not otherwise exempted or deferred from the Title V program) and RCSA §22a-174-33(a)(10)(C) (subject to 40 CFR Parts 72-78). GB II is located in a serious ozone non-attainment area as defined in RCSA §22a-174-1(103).

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

GB II is subject to the following:

40 CFR Part 60 Subpart IIII	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
40 CFR Part 60 Subpart KKKK	Standards of Performance for Stationary Combustion Turbines
40 CFR Part 63 Subpart DDDDD	National Emission Standards for Industrial, Commercial and Institutional Boilers and Process Heaters-Major Sources
40 CFR Part 63 Subpart ZZZZ	National Emission Standards for Reciprocating Internal Combustion Engines (RICE)
40 CFR Part 63 Subpart UUUUU	National Emission Standards for Utility NESHAP
40 CFR Parts 72-78	Acid Rain Requirements
40 CFR Part 96 Subpart AAAA	Clean Air Interstate Rule (CAIR)

## Section II: Emissions Units Information

### A. EMISSIONS UNITS DESCRIPTION

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

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>					
<b>GEU</b>	<b>EU</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Monitoring Unit Description</b>	<b>Permit or Regulation Number</b>
	EU-1	Main Steam Generator Make: Combustion Engineering Model: Custom Serial No.: NHHS No. 1 Installation Date: 8/1975 Maximum Rated Capacity: 4,286 MMBtu/hr	Electrostatic Precipitator, Overfire Air, Flue Gas Recirculation, Waterwall Lances, and Low NO <sub>x</sub> Burners	Continuous monitoring of stack gas flow, SO <sub>2</sub> , NO <sub>x</sub> , CO, CO <sub>2</sub> and opacity	Permit No. 117-0031 RCSA §22a-174-19a RCSA §22a-174-22c (CAIR) RCSA §22a-174-22e 40 CFR Part 63 Subpart UUUUU Title IV Acid Rain
	EU-2	Auxiliary Steam Generator Make: Babcock and Wilcox Model: Custom Installation Date: 6/1/75 Maximum Rated Capacity: 143.4 MMBtu/hr	None	Continuous monitoring of fuel flow	Permit No. 117-0021 RCSA §22a-174-22e 40 CFR Part 63 Subpart DDDDD
	EU-3	Combustion Turbine Emergency Generator Make: Solar "Spartan" Model: GS350 Installation Date: 6/1/75 Maximum Rated Capacity: 5.48 MMBtu/hr, diesel	None	None	RCSA §22a-174-3b RCSA §22a-174-22e



## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>					
<b>GEU</b>	<b>EU</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Monitoring Unit Description</b>	<b>Permit or Regulation Number</b>
		(distillate) fuel			
	EU-4	Fire Pump Engine Make: Avco Lycoming Installation Date: 6/1/75 Maximum Rated Capacity: 1.8 MMBtu/hr	None	None	RCSA §22a-174-3b  40 CFR Part 63 Subpart <i>ZZZZ</i>
GEU-1	EU-30	Combustion Turbine Make: General Electric Model: LM6000PC Serial No.: NHHS No. 2 Installation Date: 6/1/12 Maximum Rated Capacity: 484.3 MMBtu/hr (natural gas) and 459.2 MMBtu/hr (ULSD)	Water Injection, SCR, and Oxidation Catalyst	CEMS for NO <sub>x</sub> , CO, O <sub>2</sub>	Permit No. 117-0373  RCSA §22a-174-22c (CAIR)  RCSA §22a-174-22e  40 CFR Part 60 Subpart KKKK  Title IV Acid Rain
	EU-31	Combustion Turbine Make: General Electric Model: LM6000PC Serial No.: NHHS No. 3 Installation Date: 6/1/12 Maximum Rated Capacity: 484.3 MMBtu/hr (natural gas) and 459.2 MMBtu/hr (ULSD)	Water Injection, SCR, and Oxidation Catalyst	CEMS for NO <sub>x</sub> , CO, O <sub>2</sub>	Permit No. 117-0374  RCSA §22a-174-22c (CAIR)  RCSA §22a-174-22e  40 CFR Part 60 Subpart KKKK  Title IV Acid Rain

**Section II: Emissions Units Information**

<b>TABLE IIA: EMISSIONS UNITS DESCRIPTION</b>					
<b>GEU</b>	<b>EU</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Monitoring Unit Description</b>	<b>Permit or Regulation Number</b>
GEU-1 Cont.	EU-32	Combustion Turbine Make: General Electric Model: LM6000PC Serial No.: NHHS No. 4 Installation Date: 6/1/12  Maximum Rated Capacity: 484.3 MMBtu/hr (natural gas) and 459.2 MMBtu/hr (ULSD)	Water Injection, SCR, and Oxidation Catalyst	CEMS for NO <sub>x</sub> , CO, O <sub>2</sub>	Permit No. 117-0375  RCSA §22a-174-22c (CAIR)  RCSA §22a-174-22e  40 CFR Part 60 Subpart KKKK  Title IV Acid Rain
	EU-33	Black Start Generator Make: Cummins Model: QSK50-G4-NR2 Installation Date: 5/2012  Maximum Rated Capacity: 17.4 MMBtu/hr	None	None	RCSA §22a-174-3b  RCSA §22a-174-22e  40 CFR Part 60 Subpart III

## Section II: Emissions Units Information

### B. OPERATING SCENARIO IDENTIFICATION

The Permittee shall be allowed to operate under the following Standard Operating Scenarios and Alternative Operating Scenarios without notifying the commissioner, provided that such operations are explicitly provided for and described in Table II.B. There are no Alternate Operating Scenarios for the premises.

<b>TABLE II.B: OPERATING SCENARIO IDENTIFICATION</b>	
<b>Emissions Units Associated with the Scenario</b>	<b>Description of Scenario</b>
EU-1	Operates on residual fuel oil with less than 1.0% sulfur on a dry weight basis, No. 2 fuel oil with less than 0.3% sulfur on a dry weight basis, and/or natural gas.
EU-1	Operates on residual fuel oil with up to 1.3% sulfur on a dry weight basis when co-firing with natural gas at a rate greater than 25% of the total heat input.
EU-2	Operates on No. 2 fuel oil with less than 0.0015% sulfur on a dry weight basis and uses propane igniters.
EU-3, EU-4 and EU-33	Operates on ULSD with less than 0.0015% sulfur on a dry weight basis.
GEU-1	Operates on natural gas and/or ULSD with less than 0.0015% sulfur on a dry weight basis.

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

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

#### **A. (EU-1) (Main Steam Generator)**

##### **1. No. 2 Fuel Oil**

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

- i. The firing rate of No. 2 fuel oil shall not exceed 29,700 gal/hr. [Permit No. 117-0031]
- ii. The combined annual fuel usage for both No. 2 and residual fuel oil shall not exceed 258,390,000 gal over any consecutive 12 month period. [Permit No. 117-0031]
- iii. The sulfur content of the No. 2 fuel oil shall not exceed 0.3 % by weight (dry basis). [Permit No. 117-0031]

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

- i. The Permittee shall use a non-resettable totalizing fuel metering system to continuously monitor each fuel fed to this emission unit. [Permit No. 117-0031]
- ii. The Permittee shall monitor hourly, monthly and annual fuel consumption of No. 2 fuel oil. [RCSA §22a-174-33(j)(1)(K)(ii)]
- iii. The maximum fuel sulfur content shall be provided for each delivery and tracked for the operating tank. [40 CFR §64.3(a)(3)]

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

- i. The Permittee shall make and keep records of annual fuel consumption for each fuel. Annual fuel consumption shall be based on consecutive 12 month periods 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. [Permit No. 117-0031]
- ii. The Permittee shall make and keep records of the fuel certification for each delivery of fuel from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel. [Permit No. 117-0031]

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

The Permittee shall submit a report that includes the times and duration of all instances when combusted fuel is outside an indicated range. The report shall also include corrective actions taken to address an exceedance or a statement that all readings were within the indicated range. [RCSA §22a-174-33(j)(1)(X); 40 CFR §64.9(a)]

## Section III: Applicable Requirements and Compliance Demonstration

### 2. Residual Fuel Oil

#### *a. Limitation or Restriction*

- i. The firing rate of residual fuel oil shall not exceed 29,700 gal/hr. [Permit No. 117-0031]
- ii. The combined annual fuel usage for both No. 2 and residual fuel oil shall not exceed 258,390,000 gal over any consecutive 12 month period. [Permit No. 117-0031]
- iii. The sulfur content of the residual fuel oil shall not exceed 1.3 % by weight (dry basis) when co-fired with natural gas and the natural gas firing rate is 25% or more of the total heat input. [Permit No. 117-0031]
- iv. The sulfur content of residual fuel oil shall not exceed 1.0% by weight (dry basis) when solely firing oil. [Permit No. 117-0031; 40 CFR Part 64]

#### *b. Monitoring Requirements*

- i. The Permittee shall use a non-resettable totalizing fuel metering system to continuously monitor each fuel fed to this emission unit. [Permit No. 117-0031]
- ii. The Permittee shall monitor hourly, monthly and annual fuel consumption of residual fuel oil. [RCSA §22a-174-33(j)(1)(K)(ii)]
- iii. The maximum fuel sulfur content shall be provided for each delivery and tracked for the operating tank. [40 CFR §64.3(a)(3)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of annual fuel consumption for each fuel. Annual fuel consumption shall be based on consecutive 12 month periods 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. [Permit No. 117-0031]
- ii. The Permittee shall make and keep records of the fuel certification for each delivery of fuel from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel. [Permit No. 117-0031]

#### *d. Reporting Requirements*

The Permittee shall submit a report that includes the times and duration of all instances when combusted fuel is outside an indicated range. The report shall also include corrective actions taken to address an exceedance or a statement that all readings were within the indicated range. [RCSA §22a-174-33(j)(1)(X); 40 CFR §64.9(a)]

### Section III: Applicable Requirements and Compliance Demonstration

#### 3. Natural Gas

*a. Limitation or Restriction*

The annual fuel usage of natural gas shall not exceed 15,768 million cubic feet (MMft<sup>3</sup>) over any consecutive 12 month period. [Permit No. 117-0031]

*b. Monitoring Requirements*

- i. The Permittee shall use a non-resettable totalizing fuel metering system to continuously monitor each fuel fed to this emission unit. [Permit No. 117-0031]
- ii. The Permittee shall monitor annual fuel consumption for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]

*c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of annual fuel consumption for each fuel. Annual fuel consumption shall be based on consecutive 12 month periods 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. [Permit No. 117-0031]
- ii. The Permittee shall make and keep records of the periods during which the unit is co-fired with natural gas, the firing rate of natural gas, and the sulfur content of the fuel oil being fired. [Permit No. 117-0031]

*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. PM<sub>10</sub>

*a. Limitation or Restriction*

- i. The Permittee shall not exceed the following PM<sub>10</sub> emission limits when operating on No. 2 or residual fuel oil: [Permit No. 117-0031]
  - (A) 261.9 lb/hr
  - (B) 0.061 lb/MMBtu
  - (C) 1,139.27 TPY
- ii. The Permittee shall not exceed the following PM<sub>10</sub> emission limits when operating solely on natural gas: [Permit No. 117-0031]
  - (A) 12.86 lb/hr

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

(B) 0.003 lb/MMBtu

(C) 24.362 TPY

- iii. The Permittee shall not exceed the following PM<sub>10</sub> emission limit when co-firing either No. 2 or residual fuel oil with natural gas: 1,139.27 TPY. [Permit No. 117-0031]
- iv. The Permittee shall achieve compliance with the particulate emission limitation through the use of an electrostatic precipitator (ESP). The ESP shall have a manufacturer's guarantee of 95% particulate removal efficiency or an outlet level of 0.005 grains/actual cubic foot (gr/acf), whichever is greater. [Permit No. 117-0031]

#### *b. Monitoring Requirements*

- i. Demonstration of compliance with the PM<sub>10</sub> emission limits shall be met by calculating the emission rates using emission factors from the following source: AP-42, Vol. 5th Edition. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 117-0031]
- ii. While firing fuel or emitting air pollutants, the Permittee shall continuously monitor primary and secondary voltages, currents and kilowatts of the ESP. The Permittee shall maintain these parameters within the ranges recommended by the manufacturer to achieve compliance with the emission limits. [Permit No. 117-0031]
- iii. The Permittee shall continuously measure the power levels of the ESP and an alarm triggered when a transformer/rectifier set fails. [40 CFR §64.3(a)(3)]
- iv. Station electricians shall perform weekly rounds of the precipitator, reviewing transformer/rectifier set functionality and rapper and hopper vibrations operation, with periodic review by operations staff. [40 CFR §64.3(a)(3)]
- v. Internal inspections of plates, wires, hoppers and precipitator penthouse shall be performed during planned unit maintenance outages (typically once a year during high operating capacity years (greater than 30%), but the inspection cycle maybe extended when operating capacity stays below 10%). [40 CFR §64.3(a)(3)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall calculate and record the monthly and consecutive 12 month PM<sub>10</sub> emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 117-0031]
- ii. While firing fuel or emitting air pollutants, the Permittee shall continuously record primary and secondary voltages, currents and kilowatts of the ESP. [Permit No. 117-0031]
- iii. The Permittee shall make and keep records sufficient to show compliance with the pound per million British Thermal Units (lb/MMBtu) and pound per hour (lb/hr) emission limits for each fuel.

### Section III: Applicable Requirements and Compliance Demonstration

[RCSA §22a-174-33(j)(1)(K)(ii)]

- iv. The Permittee shall make and keep records of transformer/rectifier power levels per total gas path; as well as operations and maintenance checklists. [40 CFR §64.9(b)]

#### d. Reporting Requirements

The Permittee shall submit a report that includes the times and duration of all instances when ESP power to a total gas path is zero. The report shall also include corrective actions taken to address an exceedance or a statement that all readings were within the performance range.

[RCSA §22a-174-33(j)(1)(X); 40 CFR §64.9(a)]

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

#### a. Limitation or Restriction

- i. The Permittee shall not exceed the following SO<sub>x</sub> emission limits when operating on No. 2 or residual fuel oil: [Permit No. 117-0031]
  - (A) 4,714.6 lb/hr
  - (B) 1.100 lb/MMBtu
  - (C) 20,508.21 TPY
- ii. The Permittee shall not exceed the following SO<sub>x</sub> emission limits when operating solely on natural gas: [Permit No. 117-0031]
  - (A) 2.57 lb/hr
  - (B) 0.0006 lb/MMBtu
  - (C) 4.872 TPY
- iii. The Permittee shall not exceed the following SO<sub>x</sub> emission limit when co-firing either No. 2 or residual fuel oil with natural gas: 20,508.51 TPY. [Permit No. 117-0031]

#### b. Monitoring Requirements

- i. Demonstration of compliance with the SO<sub>x</sub> emission limits shall be met by calculating the emission rates using emission factors from the following source: AP-42, Vol. 5<sup>th</sup> Edition. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 117-0031]
- ii. The Permittee shall calibrate, maintain, operate, and certify a CEMS for SO<sub>x</sub> on a 3 hour rolling average. The Permittee shall meet the applicable performance specifications and quality assurance requirements of 40 CFR Part 75. [Permit No. 117-0031;RCSA §22a-174-4(c)(4)(A)]



### Section III: Applicable Requirements and Compliance Demonstration

#### c. Record Keeping Requirements

- i. The Permittee shall calculate and record the monthly and consecutive 12 month SO<sub>2</sub> emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 117-0031]
- ii. The Permittee shall make and keep records sufficient to show compliance with the lb/MMBtu and lb/hr emission limits for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]
- iii. The Permittee shall make and keep all charts, electronically stored data, and printed records produced by the SO<sub>x</sub> CEMS. [RCSA §22a-174-33(j)(1)(K)(ii)]

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

#### a. Limitation or Restriction

- i. The Permittee shall not exceed the following NO<sub>x</sub> emission limits when operating on No. 2 or residual fuel oil: [Permit No. 117-0031]
  - (A) 1,071.5 lb/hr
  - (B) 0.250 lb/MMBtu
  - (C) 4,661.03 TPY
- ii. The Permittee shall not exceed the following NO<sub>x</sub> emission limits when operating solely on natural gas: [Permit No. 117-0031]
  - (A) 857.2 lb/hr
  - (B) 0.200 lb/MMBtu
  - (C) 1,624.1 TPY
- iii. The Permittee shall not exceed the following NO<sub>x</sub> emission limit when co-firing No. 2 or residual fuel oil with natural gas: 4,672.15 TPY. [Permit No. 117-0031]
- iv. Phase 1 (6/1/18-5/31/23), the Permittee shall not exceed the following NO<sub>x</sub> emission limits when operating on residual fuel oil: [RCSA §22a-174-22e(d)(2)(A) and (B)]
  - (A) 0.25 lb/MMBtu (24 hour daily average)

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- (B) 0.20 lb/MMBtu (Ozone Season: May 1<sup>st</sup>-September 30<sup>th</sup>)
- (C) 0.15 lb/MMBtu (Non-Ozone Season: October 1<sup>st</sup>-April 30<sup>th</sup>)
- v. Phase 1 (6/1/18-5/31/23), the Permittee shall not exceed the following NO<sub>x</sub> emission limits when operating on No. 2 fuel oil: [RCSA §22a-174-22e(d)(2)(A) and (B)]
  - (A) 0.20 lb/MMBtu (24 hour daily average)
  - (B) 0.10 lb/MMBtu (Ozone Season: May 1<sup>st</sup>-September 30<sup>th</sup>)
  - (C) 0.15 lb/MMBtu (Non-Ozone Season: October 1<sup>st</sup>-April 30<sup>th</sup>)
- vi. Phase 1 (6/1/18-5/31/23), the Permittee shall not exceed the following NO<sub>x</sub> emission limits when operating on natural gas: [RCSA §§22a-174-22e(d)(2)(A) and (B)]
  - (A) 0.20 lb/MMBtu (24 hour daily average)
  - (B) 0.10 lb/MMBtu (Ozone Season: May 1<sup>st</sup>-September 30<sup>th</sup>)
  - (C) 0.15 lb/MMBtu (Non-Ozone Season: October 1<sup>st</sup>-April 30<sup>th</sup>)
- vii. Phase 2 (on or after 6/1/23), the Permittee shall not exceed the following NO<sub>x</sub> emission limit when operating on residual fuel oil: [RCSA §§22a-174-22e(d)(2)(C) and (D)]
  - (A) 0.20 lb/MMBtu (24 hour daily average)
  - (B) 0.15 lb/MMBtu (Non-Ozone Season: October 1<sup>st</sup>-April 30<sup>th</sup>)
- viii. Phase 2 (on or after 6/1/23), the Permittee shall not exceed the following NO<sub>x</sub> emission limit when operating on No. 2 fuel oil: [RCSA §§22a-174-22e(d)(2)(C) and (D)]
  - (A) 0.10 lb/MMBtu (24 hour daily average)
  - (B) 0.15 lb/MMBtu (Non-Ozone Season: October 1<sup>st</sup>-April 30<sup>th</sup>)
- ix. Phase 2 (on or after 6/1/23), the Permittee shall not exceed the following NO<sub>x</sub> emission limit when operating on natural gas: [RCSA §§22a-174-22e(d)(2)(C) and (D)]
  - (A) 0.10 lb/MMBtu (24 hour daily average)
  - (B) 0.15 lb/MMBtu (Non-Ozone Season: October 1<sup>st</sup>-April 30<sup>th</sup>)
- x. The Permittee shall not cause or allow emissions of NO<sub>x</sub> from an emission unit that is capable of firing two or more fuels in excess of the following: [RCSA §22a-174-22e(d)(10)]
  - (A) For fuel-burning equipment that simultaneously fires two or more fuels, an emission limitation calculated by:
    - (1) Multiplying the heat input of each fuel combusted by the emission limitation in this subsection for the particular emission unit and fuel used,

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- (2) Summing those products, and
  - (3) Dividing the sum by the total heat input; or
- xi. For fuel-burning equipment that is capable of interchangeably firing two or more fuels, the emission limitation in this subsection for the particular equipment and fuel used.

#### *b. Monitoring Requirements*

- i. Demonstration of compliance with the NO<sub>x</sub> emission limits shall be met by calculating the emission rates using emission factors from the following source: AP-42, Vol. 5<sup>th</sup> Edition. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 117-0031]
- ii. The Permittee shall calculate an emission unit's non-ozone season emission rate as the sum of the emission unit's NO<sub>x</sub> emissions during the period from October 1 through April 30, inclusive, divided by the sum of the emission unit's heat input during the period of October 1 through April 30, inclusive. [RCSA §22a-174-22e(d)(19)]
- iii. The Permittee shall calculate an emission unit's ozone season emission rate as the sum of the emission unit's NO<sub>x</sub> emissions while firing the applicable fuel during the period from May 1 through September 30, inclusive, divided by the sum of the emission unit's heat input while firing the applicable fuel during the period from May 1 through September 30, inclusive. [RCSA §22a-174-22e(d)(20)]
- iv. The Permittee shall calibrate, maintain, operate and certify a CEM system to demonstrate compliance with RCSA §22a-174-22e. [RCSA §22a-174-22e(m)(1)]
- v. The Permittee shall collect quality assured CEM 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)]
- vi. Emissions data used to determine compliance with the applicable emissions limitations of RCSA §22a-174-22e(d) shall not include data collected during the following periods: [RCSA §22a-174-22e(m)(3)(A-D)]
  - (A) When the monitoring system is out-of-control as specified in the facility-specific monitoring plan;
  - (B) While conducting required monitoring system quality assurance or quality control activities, including calibration checks and required zero and span adjustments;
  - (C) While conducting maintenance or repairs of the monitoring system to prevent or correct a malfunction; or
  - (D) When the emission unit is not operating.

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- vii. Compliance with the seasonal limits of RCSA §22a-174-22e(d) shall be determined using emissions and operating data for the entire five-month period for an ozone season emission limitation or for the entire seven-month period for a non-ozone season emissions limitation, except for the 2018 or 2023 ozone season, compliance shall be determined based on data collected June 1 through September 30. [RCSA §22a-174-22e(m)(5)]

#### c. Record Keeping Requirements

- i. The Permittee shall calculate and record the monthly and consecutive 12 month NO<sub>x</sub> emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 117-0031]
- ii. The Permittee shall retain all records and reports produced pursuant to RCSA §22a-174-22e for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. Such records and reports shall be retained at the premises where the emission unit is located, unless the commissioner approves in writing the use of another location in Connecticut. [RCSA §22a-174-22e(j)(1)]
- iii. The Permittee shall make and keep the following records:
  - (A) The date and work performed for repairs, replacement of parts and other maintenance. [RCSA §22a-174-22e(j)(2)(B)]
  - (B) For an emission unit that has or is required to have a CEM system for NO<sub>x</sub>: [RCSA §22a-174-22e(j)(2)(D)(i-iv)]
    - (1) Records of all performance evaluations, calibration checks and adjustments on such monitor,
    - (2) A record of maintenance performed,
    - (3) All data necessary to complete the quarterly reports required under RCSA §22a-174-22e(k)(3), and
    - (4) Charts, electronically stored data, and printed records produced by such CEM as needed to demonstrate compliance with the requirements of RCSA §22a-174-22e.
  - (C) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and [RCSA §22a-174-22e(j)(2)(F)]
  - (D) 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)]
- iv. The Permittee shall make and keep records sufficient to demonstrate compliance with the lb/MMBtu and lb/hr emission limits for each fuel. [RCSA §22a-174-33(j)(1)(K)]
- v. The Permittee shall make and keep records sufficient to demonstrate compliance with all applicable requirements of RCSA §22a-174-22c and the standard requirements of the CAIR permit

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application. [RCSA §22a-174-33(j)(1)(K)]

#### 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 CEM system 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-G)]
  - (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 emission;
  - (E) The date and time when each malfunction of the CEM system commenced and ended;
  - (F) Actions taken to correct each malfunction; and
  - (G) If not excess emissions or CEM system malfunctions occur during a quarter, the Permittee 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 CEM 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 any CEM for NO<sub>x</sub>. Any such testing shall be conducted in accordance with a testing protocol approved by the commissioner. Any CEM for NO<sub>x</sub> shall be installed, calibrated and operated in accordance with the performance and quality assurance specifications contained in RCSA §22a-174-4 and 40 CFR Part 60 Subpart A, Appendix B and Appendix F, or, for affected units 40 CFR Part 75. [RCSA §22a-174-22e(m)(4)]

## 7. VOC

#### a. Limitation or Restriction

- i. The Permittee shall not exceed the following VOC emission limits when operating on No. 2 or residual fuel oil: [Permit No. 117-0031]
  - (A) 34.29 lb/hr
  - (B) 0.008 lb/MMBtu

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- (C) 149.16 TPY
- ii. The Permittee shall not exceed the following VOC emission limits when operating solely on natural gas: [Permit No. 117-0031]
  - (A) 6.43 lb/hr
  - (B) 0.0015 lb/MMBtu
  - (C) 12.181 TPY
- iii. The Permittee shall not exceed the following VOC emission limit when co-firing either No. 2 or residual fuel oil with natural gas: 149.16 TPY. [Permit No. 117-0031]

#### *b. Monitoring Requirements*

Demonstration of compliance with the VOC emission limits shall be met by calculating the emission rates using emission factors from the following source: AP-42, Vol. 5<sup>th</sup> Edition. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 117-0031]

#### *c. Record Keeping Requirements*

- i. The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 117-0031]
- ii. The Permittee shall make and keep records sufficient to show compliance with the lb/MMBtu and lb/hr emission limits for each fuel. [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)]

## 8. CO

#### *a. Limitation or Restriction*

- i. The Permittee shall not exceed the following CO emission limits when operating on No. 2 or residual fuel oil: [Permit No. 117-0031]
  - (A) 150.0 lb/hr
  - (B) 0.035 lb/MMBtu
  - (C) 652.50 TPY

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- ii. The Permittee shall not exceed the following CO emission limits when operating solely on natural gas: [Permit No. 117-0031]
  - (A) 171.4 lb/hr
  - (B) 0.040 lb/MMBtu
  - (C) 324.82 TPY
- iii. The Permittee shall not exceed the following CO emission limit when co-firing No. 2 or residual fuel oil with natural gas: 693.15 TPY. [Permit No. 117-0031]

#### *b. Monitoring Requirements*

Demonstration of compliance with the CO emission limits shall be met by calculating the emission rates using emission factors from the following source: AP-42, Vol. 5<sup>th</sup> Edition. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 117-0031]

#### *c. Record Keeping Requirements*

- i. The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 117-0031]
- ii. The Permittee shall make and keep records sufficient to show compliance with the lb/MMBtu and lb/hr emission limits for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### *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. Pb**

#### *a. Limitation or Restriction*

- i. The Permittee shall not exceed the following Pb emission limits when operating on No. 2 or residual fuel oil: [Permit No. 117-0031]
  - (A) 0.493 lb/hr
  - (B) 0.0001 lb/MMBtu
  - (C) 2.145 TPY

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- ii. The Permittee shall not exceed the following Pb emission limit from burning No. 2, residual fuel oil, and natural gas combined: 2.145 TPY. [Permit No. 117-0031]

#### *b. Monitoring Requirements*

Demonstration of compliance with the Pb emission limits shall be met by calculating the emission rates using emission factors from the following source: AP-42, Vol. 5<sup>th</sup> Edition. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 117-0031]

#### *c. Record Keeping Requirements*

- i. The Permittee shall calculate and record the monthly and consecutive 12 month Pb emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 117-0031]
- ii. The Permittee shall make and keep records sufficient to show compliance with the lb/MMBtu and lb/hr emission limits for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### *d. Reporting Requirements*

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

## **10. Opacity**

### *a. Limitation or Restriction*

- i. Except during a period of startup, shutdown or malfunction; commissioner-approved stack testing; or intentional soot blowing, fuel switching or sudden load changing done in accordance with good engineering practices, the Permittee shall not exceed the following visible emissions limits: [RCSA §§22a-174-18(b)(2)(A), (B) and -18(j)(1)(A)]
  - (A) Twenty percent (20%) opacity during any six-minute block average; or
  - (B) Forty percent (40%) opacity during any one-minute block average.
- ii. The period of exception from the visible emissions standards of RCSA §22a-174-18(b)(2) does not exceed 0.5% of the total operating hours of such stationary source during any calendar quarter. [RCSA §22a-174-18(j)(1)(B)]
- iii. The Permittee shall not cause or allow visible emissions in excess of 60% opacity during any six-minute block average of the period of exception from the visible emission standards of RCSA §22a-174-18(b)(2). [RCSA §22a-174-18(j)(1)(C)]



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#### *b. Monitoring Requirements*

- i. The Permittee shall install, calibrate, maintain, operate, and certify a CEMS for opacity. The CEMS shall be calibrated, operated and tested in accordance with Connecticut Department of Energy and Environmental Protection (CT DEEP) CEMS Guideline and with the requirements specified in 40 CFR Part 60 Subpart A, Appendices B and F, as may be amended from time to time. [RCSA §§22a-174-4(b)(1) and -4(c)(4)(A)]
- ii. The Permittee shall calibrate the opacity CEMS daily and Neutral Density Filter Audits shall be conducted quarterly. [40 CFR §64.3(a)(3)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep all charts, electronically stored data, and printed records produced by the opacity CEMS. [RCSA §22a-174-4(d)(1)]
- ii. The Permittee shall make and keep records of data sufficient to determine the one-minute and six-minute block opacity averages. These records shall also include documentation of the daily calibrations and the quarterly audits done; as well as any corrective action taken to address an exceedance of the opacity limits. [40 CFR §64.9(b)]

#### *d. Reporting Requirements*

The Permittee shall submit a report that includes a summary of the opacity CEMS performance data, times and duration of instances when the data recorded was outside of an indicated performance range. The report shall also include corrective actions taken to address an exceedance or a statement that all readings were within the performance range. [RCSA §22a-174-33(o)(1); 40 CFR §64.9(a)]

## **11. Operation and Maintenance**

#### *a. Limitation or Restriction*

- i. The Permittee shall operate and maintain the emission unit and associated air pollution control equipment in accordance with the manufacturer's specifications, written recommendations and/or good engineering practices. [Permit No. 117-0031; 40 CFR §63.10000(b)]
- ii. The Permittee shall conduct a tune-up of the EGU burner and combustion controls at least each 36 calendar months, or each 48 calendar months if neural network combustion optimization software is employed, as specified in 40 CFR §63.10021(e). [40 CFR §63.9991(a)(1); 40 CFR §63.10005(e); 40 CFR §63.10006(i); 40 CFR §§63.10021(a) and (e); 40 CFR Part 63 Subpart UUUUU, Table 3, No. 1; Table 7, Nos. 5-7]
- iii. The Permittee is required to meet the work practice requirements in 40 CFR Part 63 Subpart UUUUU, Table 3 during periods of startup or shutdown. [40 CFR §63.10000(a)]
- iv. The Permittee shall determine the fuel whose combustion produces the least uncontrolled emissions, i.e., the cleanest fuel, either natural gas or distillate oil, that is available on site or accessible nearby for use during periods of startup or shutdown. The Permittee may take safety considerations into account. [40 CFR §§63.10011(f)(1) and (2)]
- v. The Permittee shall conduct periodic performance tune-ups of the EGU as follows:

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- (A) As applicable, inspect the burner and combustion controls, and clean or replace any components of the burner or combustion controls as necessary upon initiation of the work practice program and at least once every required inspection period. Repair of a burner or combustion control component requiring special order parts may be scheduled as follows: [40 CFR §§63.10021(e)(1)(i) and (ii)]
  - (1) Burner or combustion control component parts needing replacement that affect the ability to optimize NO<sub>x</sub> and CO shall be installed within three calendar months after the burner inspection,
  - (2) Burner or combustion control component parts that do not affect the ability to optimize NO<sub>x</sub> and CO may be installed on a schedule determined by the operator;
- (B) As applicable, inspect the flame pattern and make any adjustments to the burner or combustion controls necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available, or in accordance with best combustion engineering practice for that burner type; [40 CFR §63.10021(e)(2)]
- (C) As applicable, observe the damper operations as a function of mill and/or cyclone loadings, making adjustments and effecting repair to dampers, controls, mills, cyclones and sensors; [40 CFR §63.10021(e)(3)]
- (D) As applicable, evaluate windbox pressures and air proportions, making adjustments and effecting repair to dampers, actuators, controls, and sensors; [40 CFR §63.10021(e)(4)]
- (E) Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly. Such inspection may include calibrating excess O<sub>2</sub> probes and/or sensors, adjusting overfire air systems, changing software parameters, and calibrating associated actuators and dampers to ensure that the systems are operated as designed. Any component out of calibration, in or near failure, or in a state that is likely to negate combustion optimization efforts prior to the next tune-up, should be corrected or repaired as necessary; [40 CFR §63.10021(e)(5)]
- (F) Optimize combustion to minimize generation of CO and NO<sub>x</sub>. This optimization should be consistent with the manufacturer's specifications, if available, or best combustion engineering practice for the applicable burner type. NO<sub>x</sub> optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, adjusting combustion zone temperature profiles, and add-on controls such as SCR and SNCR; CO optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, and adjusting combustion zone temperature profiles; and [40 CFR §63.10021(e)(6)]
- (G) While operating at full load or the predominantly operated load, measure the concentration in the effluent stream of CO and NO<sub>x</sub> in ppm, by volume, and oxygen in volume percent, before and after the tune-up adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). The Permittee may use portable CO, NO<sub>x</sub> and O<sub>2</sub> monitors for this measurement. EGU's employing neural network optimization systems need only provide a single pre- and post-tune-up value rather than continual values before and after each optimization adjustment

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made by the system. [40 CFR §63.10021(e)(7)]

- vi. The Permittee shall follow the startup or shutdown requirements as given in 40 CFR Part 63 Subpart UUUUUU, Table 3 for each coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGU: [40 CFR §§63.10021(h)(1) and (2)]
  - (A) The Permittee may use the diluent cap and default gross output values, as described in 40 CFR §63.10007(f), during startup periods or shutdown periods.
  - (B) The Permittee shall operate all Continuous Monitoring System (CMS), collect data, calculate pollutant emission rates, and record data during startup periods or shutdown periods.
- vii. The Permittee shall comply with the applicable General Provisions listed in 40 CFR Part 63 Subpart UUUUUU, Table 9. [40 CFR §63.10040; 40 CFR Part 63 Subpart UUUUUU, Table 9]

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

The Permittee shall demonstrate compliance through an initial performance test and shall monitor continuous performance through either use of a particulate matter continuous parametric monitoring system (PM CPMS), a PM CEMS, or, for an existing EGU, compliance performance testing repeated quarterly. [40 CFR §63.10000(c)(2)(iv)]

#### *c. Record Keeping Requirements*

- i. For an existing EGU without a neural network, a tune-up, following the procedures of 40 CFR §63.10021(e), shall occur within six months (180 days) after 4/16/15. For an existing EGU with a neural network, a tune-up shall occur within 18 months (545 days) after 4/16/15. If a tune-up occurs prior to 4/16/15, the Permittee shall keep records showing that the tune-up met all rule requirements. [40 CFR §§63.10005(a) and (f)]
- ii. Additional requirements during startup periods or shutdown periods if the Permittee chooses to rely on paragraph (2) of the definition of “startup” in 40 CFR §63.10042 for the EGU. During each period of startup, the Permittee shall record for each EGU: [40 CFR §63.10020(e)(1); 40 CFR §63.10032(f)(2)(iii)]
  - (A) The date and time that clean fuels being combusted for the purpose of startup begins;
  - (B) The quantity and heat input of clean fuel for each hour of startup;
  - (C) The gross output for each hour of startup;
  - (D) The date and time that non-clean fuel combustion begins; and
  - (E) The date and time that clean fuels being combusted for the purpose of startup ends.
- iii. The Permittee shall make and keep the following records during each shutdown period for each EGU: [40 CFR §63.10020(e)(2); 40 CFR §63.10032(f)(2)(iii)]
  - (A) The date and time that clean fuels being combusted for the purpose of shutdown begins;
  - (B) The quantity and heat input of clean fuel for each hour of shutdown;

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- (C) The gross output for each hour of shutdown;
  - (D) The date and time that non-clean fuel combustion ends; and
  - (E) The date and time that clean fuels being combusted for the purpose of shutdown ends.
- iv. The Permittee shall maintain on-site and submit, if requested by the Administrator, an annual report containing the information in 40 CFR §§63.10021(e)(1) through (e)(8) including:
- (A) The concentrations of CO and NO<sub>x</sub> in the effluent stream in ppm by volume, and oxygen in volume percent, measured before and after an adjustment of the EGU combustion systems; [40 CFR §63.10021(e)(8)(i)]
  - (B) A description of any corrective actions taken as a part of the combustion adjustment; and [40 CFR §63.10021(e)(8)(ii)]
  - (C) The type(s) and amount(s) of fuel used over the 12 calendar months prior to an adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period. [40 CFR §63.10021(e)(8)(iii)]
- v. Regarding startup periods or shutdown periods: [40 CFR §§63.10032(f)(1) and (2)]
- (A) If the Permittee chooses to rely on paragraph (1) of the definition of “startup” in 40 CFR §63.10042 for the EGU, the Permittee shall make and keep records of the occurrence and duration of each startup or shutdown.
  - (B) If the Permittee chooses to rely on paragraph (2) of the definition of “startup” in 40 CFR §63.10042 for the EGU, the Permittee shall make and keep records of:
    - (1) The determination of the maximum possible clean fuel capacity for each EGU; and
    - (2) The determination of the maximum possible hourly clean fuel heat input and of the hourly clean fuel heat input for each EGU.
- vi. The Permittee shall make and keep records of the occurrence and duration of each malfunction of an operation (i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR §63.10032(g)]
- vii. The Permittee shall make and keep records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR §63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR §63.10032(h)]
- viii. The Permittee shall make and keep records of the type(s) and amount(s) of fuel used during each startup or shutdown. [40 CFR §63.10032(i)]
- ix. The Permittee shall keep records of the type(s) and amount(s) of fuel use in each calendar quarter to document that the capacity factor limitation for that subcategory (i.e. limited-use liquid oil-fired EGU) is met. [40 CFR §63.10032(j)]

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- x. The Permittee's records shall be in a form suitable and readily available for expeditious review, according to 40 CFR §63.10(b)(1). [40 CFR §63.10033(a)]
- xi. As specified in 40 CFR §63.10(b)(1), the Permittee shall make and keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR §63.10033(b)]
- xii. The Permittee shall make and keep each record on site for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR §63.10(b)(1). The Permittee can keep the records off site for the remaining three years. [40 CFR §63.10033(c)]
- xiii. The Permittee shall make and keep a copy of the boiler's operating guidance created using good engineering practices, manufacturer's recommendations and operating experience. The Permittee shall maintain records sufficient to demonstrate that the boiler is operated in accordance with this guidance. [RCSA §22a-174-33(j)(1)(K)(ii)]
- xiv. The Permittee shall make and keep records sufficient to show compliance with applicable General Provisions requirements of 40 CFR Part 63 Subpart UUUUU, Table 9. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### *d. Reporting Requirements*

- i. The Permittee shall meet the notification requirements in 40 CFR §63.10030 according to the schedule in 40 CFR §63.10030 and in 40 CFR Part 63 Subpart A. Some of the notifications shall be submitted before the Permittee is required to comply with the emission limits and work practice standards. [40 CFR §63.9984(c); 40 CFR §63.10005(k)]
- ii. On or after 7/1/18, report the date of all tune-ups electronically, in accordance with 40 CFR §63.10031(f). The tune-up report date is the date when tune-up requirements in 40 CFR §§63.10021(e)(6) and (7) are completed. [40 CFR §63.10021(e)(9)]
- iii. The Permittee shall report each instance in which they did not meet an applicable emissions limit or operating limit in 40 CFR Part 63 Subpart UUUUU, Tables 1 through 4 or failed to conduct a required tune-up. These instances are deviations from the requirements of 40 CFR Part 63 Subpart UUUUU. These deviations shall be reported according to 40 CFR §63.10031. [40 CFR §63.10021(g)]
- iv. The Permittee shall submit all of the applicable notifications in 40 CFR §§63.7(b) and (c), §§63.8 (e), (f)(4) and (6), and §§63.9 (b) through (h) by the dates specified. [40 CFR §63.10030(a)]
- v. The Permittee shall submit a semiannual compliance report according to the requirements in 40 CFR §63.10031(b). [40 CFR §63.10021(f); 40 CFR §§63.10031(a) and (b); 40 CFR Part 63 Subpart UUUUU, Table 8, No. 1]
- vi. For each affected source that is subject to permitting regulations pursuant to 40 CFR Part 70 or 40 CFR Part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR §70.6(a)(3)(iii)(A) or 40 CFR §71.6(a)(3)(iii)(A), the Permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs 40 CFR §§63.10031(b)(1) through (4).

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[40 CFR §63.10021(f); 40 CFR §63.10031(b)(5)]

- vii. The compliance report shall contain the following:  
[40 CFR §63.10021(f); 40 CFR §63.10021(h)(3); 40 CFR §63.10021(i); 40 CFR §§63.10031(c)(1-4) and (8-9); 40 CFR Part 63 Subpart UUUUU, Table 8, No. 1, a-c]
- (A) The information required by the summary report located in 40 CFR §63.10(e)(3)(vi);  
[40 CFR §63.10031(c)(1)]
  - (B) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or the Permittee's basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure; [40 CFR §63.10031(c)(2)]
  - (C) Indicate whether the Permittee burned new types of fuel during the reporting period. If the Permittee did burn new types of fuel the Permittee shall include the date of the performance test where that fuel was in use; [40 CFR §63.10031(c)(3)]
  - (D) Include the date of the most recent tune-up for each EGU. The date of the tune-up is the date the tune-up provisions specified in 40 CFR §§63.10021(e)(6) and (7) were completed;  
[40 CFR §63.10031(c)(4)]
  - (E) A certification; [40 CFR §63.10031(c)(8)]
  - (F) If there is a deviation from any emission limit, work practice standard, or operating limit, the Permittee shall also submit a brief description of the deviation, the duration of the deviation, emissions point identification, and the cause of the deviation;  
[40 CFR §63.10031(c)(9)]
  - (G) If there are no deviations from any applicable emission limitation (emission limit and operating limit) and there are no deviations from the applicable requirements for work practice standards in 40 CFR Part 63 Subpart UUUUU, Table 3, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emission monitoring system and operating parameter monitoring systems, were out-of-control as specified in 40 CFR §63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and  
[40 CFR Part 63 Subpart UUUUU, Table 8, No. 1, b]
  - (H) If there is a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report shall contain the information in 40 CFR §63.10031(d). If there were periods during which the CMSs, including continuous emission monitoring system and continuous parameter monitoring systems, were out-of-control, as specified in 40 CFR §63.8(c)(7), the report shall contain the information in 40 CFR §63.10031(e). [40 CFR Part 63 Subpart UUUUU, Table 8, No. 1, c]
- viii. Each affected source that has obtained a Title V operating permit pursuant to 40 CFR Part 70 or Part 71 shall report all deviations as defined in 40 CFR Part 63 Subpart UUUUU in the semiannual monitoring report required by 40 CFR §70.6(a)(3)(iii)(A) or 40 CFR §71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to 40 CFR Part 63 Subpart UUUUU, Table 8

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along with, or as part of, the semiannual monitoring report required by 40 CFR §70.6(a)(3)(iii)(A) or 40 CFR §71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. Submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. [40 CFR §63.10021(f); 40 CFR §63.10031(e)]

- ix. On or after 7/1/20, within 60 days after the date of completing each performance test, the Permittee shall submit the performance test reports required by this subpart to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov>). Performance test data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see <https://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using those test methods on the ERT website are subject to this requirement for submitting reports electronically to WebFIRE. If the Permittee claims that some of the information being submitted for performance tests is confidential business information (CBI) they shall submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media shall be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted shall be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, the Permittee shall also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority. [40 CFR §63.10021(f); 40 CFR §63.10031(f)]
- x. On or after 7/1/20 submit the compliance reports required under paragraphs 40 CFR §§63.10031(c) and (d) and the notification of compliance status required under 40 CFR §63.10030(e) to the EPA's WebFIRE database by using the CEDRI that is accessed through the EPA's CDX (<https://cdx.epa.gov>). The Permittee shall use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with EPA's reporting form output format. [40 CFR §63.10021(f); 40 CFR §63.10031(f)(4)]
- xi. All reports required by 40 CFR Part 63 Subpart UUUUU not subject to the requirements in 40 CFR §63.10031(f) introductory text and 40 CFR §§63.10031(f)(1) through (4) shall be sent to the Administrator at the appropriate address listed in 40 CFR §63.13. If acceptable to both the Administrator and the Permittee, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to paragraphs 40 CFR §63.10031(f) introductory text and 40 CFR §§63.10031(f)(1) through (4) in paper format. [40 CFR §63.10021(f); 40 CFR §63.10031(f)(5)]
- xii. If the Permittee had a malfunction during the reporting period, the compliance report shall include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. [40 CFR §63.10021(f); 40 CFR §63.10031(g)]

#### 12. Maximum Economic Output

##### a. Limitation or Restriction

- i. The Permittee shall reduce the economic maximum output of EU-1 by 4 MW per turbine, for each hour or portion thereof that a turbine covered by GEU-1 operates simultaneously with EU-1.

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[Permit No. 117-0031]

- (A) For the purpose of this condition, economic maximum output is the maximum available output, in MW, that the Permittee offers to supply to Independent System Operator-New England (ISO-NE) in the Day-Ahead Energy Market or Real-Time Energy Market as reflected in the Supply Offer made by the Permittee for EU-1. This represents the highest MW output Permittee has offered for EU-1 for economic dispatch.
- (B) The net power output from EU-1 during any hour shall not exceed the economic maximum output declared for that hour.
- (C) This condition shall not apply during a declared system reserve deficiency as detailed in ISO-NE Operating Procedures 4 “Action During Capacity Deficiency”.

#### *b. Monitoring Requirements*

Record keeping specified in Section III.A.12.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of the economic maximum output of EU-1 as declared by the Permittee on an hourly basis. Such records shall also include any re-declared economic maximum output resulting from the operation of the turbines covered by GEU-1. The Permittee shall maintain copies of these declarations as they are made.  
[Permit No. 117-0031]
- ii. The Permittee shall make and keep hourly records of the net power output of EU-1 obtained from a watt meter that is maintained and calibrated and that continuously monitors the net power output of EU-1. [Permit No. 117-0031]
- iii. The retention period for maintaining records under Section III.A.12 of this Title V permit shall automatically be extended during the course of any unresolved enforcement action.  
[Permit No. 117-0031]

#### *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)]

### 13. Ozone Season Operation

#### *a. Limitation or Restriction*

- i. During the Ozone Season, the Permittee shall co-fire EU-1 with natural gas.  
[Permit No. 117-0031]
  - (A) The natural gas fuel firing rate, in standard cubic feet per hour (scf/hr) shall be an amount averaging at a minimum over each calendar day between 450 thousand cubic feet (mcf) and



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550 mcf per hour of natural gas, except during startup, load shift or shutdown or when the availability of the natural gas is restricted.

- (B) For the purposes of this condition, the “Ozone Season” shall be the period from April 1 through September 30 of each calendar year, or another time period designated by the federal EPA in 40 CFR Part 58 Appendix D, as may be amended from time to time.

#### *b. Monitoring Requirements*

Record keeping specified in Section III.A.13.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

#### *c. Record Keeping Requirements*

- i. At the time each turbine covered by GEU-1 is operating, the Permittee shall make and keep records of the date and the starting and stopping time of each turbine’s operation. For each turbine, the Permittee shall tabulate the number of hours of operation for each calendar month and shall maintain this tabulation of total hours operated. [Permit No. 117-0031]
- ii. At the time that EU-1 is operating, the Permittee shall make and keep records of the date and time EU-1 is operated, the types of fuel fired in EU-1 during such operation and the hourly usage of each fuel fired in EU-1. [Permit No. 117-0031]
- iii. The retention period for maintaining records under Section III.A.13 of this Title V permit shall automatically be extended during the course of any unresolved enforcement action. [Permit No. 117-0031]

#### *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)]

### **14. Non-Ozone Season Operation**

#### *a. Limitation or Restriction*

- i. During the non-ozone season, for each hour that the Permittee operates EU-1 simultaneously with one or more of the turbines covered by GEU-1, the Permittee shall co-fire EU-1 with natural gas for at least one hour for each hour, or portion thereof, that any turbine is operated. [Permit No. 117-0031]
- (A) If the availability of natural gas is restricted when the Permittee is dispatched by ISO-NE to operate EU-1, the Permittee shall ensure that EU-1 is co-fired with natural gas, to meet the requirements of Section III.A.14.a.i of this Title V permit, during its next period of operation, and any subsequent periods of operation, that the availability of natural gas is not restricted.
- (B) The natural gas fuel firing rate, in scf/hr, shall be an amount averaging at a minimum over each calendar day between 450 mcf and 550 mcf per hour of natural gas, except during startup, load shift or shutdown.

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#### *b. Monitoring Requirements*

Record keeping specified in Section III.A.14.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### *c. Record Keeping Requirements*

- i. At the time each turbine covered by GEU-1 is operating, the Permittee shall make and keep records of the date and the starting and stopping time of each turbine's operation. For each turbine, the Permittee shall tabulate the number of hours of operation for each calendar month and shall maintain this tabulation of total hours operated. [Permit No. 117-0031]
- ii. At the time that EU-1 is operating, the Permittee shall make and keep records of the date and time EU-1 is operated, the types of fuel fired in EU-1 during such operation and the hourly usage of each fuel fired in EU-1. [Permit No. 117-0031]
- iii. The retention period for maintaining records under Section III.A.14 of this Title V permit shall automatically be extended during the course of any unresolved enforcement action. [Permit No. 117-0031]

#### *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)]

### **15. ISO-NE Daily Bid**

#### *a. Limitation or Restriction*

The Permittee shall ensure that in its daily bid to ISO-NE regarding EU-1, the minimum required run time for EU-1 is not more than 12 hours. [Permit No. 117-0031]

#### *b. Monitoring Requirements*

Record keeping specified in Section III.A.15.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### *c. Record Keeping Requirements*

- i. The retention period for maintaining records under Section III.A.15 of this Title V permit shall automatically be extended during the course of any unresolved enforcement action. [Permit No. 117-0031]
- ii. The Permittee shall maintain records sufficient to demonstrate compliance with the minimum daily bid requirement. [RCSA §22a-174-33(j)(1)(K)(ii)]

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#### *d. Reporting Requirements*

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

### **B. EU-2 (Auxiliary Steam Generator)**

#### **1. No. 2 Fuel Oil**

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

- i. The firing rate of No. 2 fuel oil shall not exceed 997 gal/hr. [Permit No. 117-0021]
- ii. The combined annual fuel usage for all fuel types shall not exceed 125,000 MMBtu over any consecutive 12 month period. [Permit No. 117-0021]
- iii. The sulfur content of No. 2 fuel oil shall not exceed 0.0015% by weight (dry basis). [RCSA §22a-174-19b]

##### *b. Monitoring Requirements*

- i. The Permittee shall continuously monitor fuel consumption using a non-resettable totalizing fuel meter. [Permit No. 117-0021]
- ii. The Permittee shall have sulfur content of the fuel analyzed according to the most current methods approved by the American Society for Testing and Materials for the analysis of sulfur content of liquid fuels. [RCSA §22a-174-5(b)(1)]

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

- i. The Permittee shall make and keep fuel use records for the days the boiler was operating. [40 CFR §63.7525(k)]
- ii. The Permittee shall make and keep records of monthly and consecutive 12 month fuel consumption by volume and by BTU. The consecutive 12 month fuel consumption shall be determined by adding (for each fuel) the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 117-0021]
- iii. The Permittee shall make and keep records of the fuel certification for each delivery of fuel oil from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by this equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel. [Permit No. 117-0021]

##### *d. Reporting Requirements*

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

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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. Propane

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

The combined annual fuel usage for all fuel types shall not exceed 125,000 MMBtu over any consecutive 12 month period. [Permit No. 117-0021]

##### *b. Monitoring Requirements*

The Permittee shall continuously monitor fuel consumption using a non-resettable totalizing fuel meter. [Permit No. 117-0021]

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

- i. The Permittee shall make and keep fuel use records for the days the boiler was operating. [40 CFR §63.7525(k)]
- ii. The Permittee shall make and keep records of monthly and consecutive 12 month fuel consumption by volume and by BTU. The consecutive 12 month fuel consumption shall be determined by adding (for each fuel) the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 117-0021]

##### *d. Reporting Requirements*

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

#### 3. PM

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

- i. The Permittee shall not exceed the following PM emission limits when operating on No. 2 fuel oil: [Permit No. 117-0021]
  - (A) 13.96 lb/hr
  - (B) 0.10 lb/MMBtu
- ii. The Permittee shall not exceed the following PM emission limit from burning No. 2 fuel oil and propane combined: 6.25 TPY. [Permit No. 117-0021]

##### *b. Monitoring Requirements*

Demonstration of compliance with the PM emission limits shall be met by calculating the emission rates using emission factors from the following source: AP-42, Vol. 5<sup>th</sup> Edition. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the emission limits, as allowed by state or

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federal statute, law or regulation. [Permit No. 117-0021]

#### *c. Record Keeping Requirements*

- i. The Permittee shall calculate and record the monthly and consecutive 12 month PM emissions in units of tons. 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 for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 117-0021]
- ii. The Permittee shall make and keep records sufficient to demonstrate compliance with the lb/hr and lb/MMBtu emission limits for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### *d. Reporting Requirements*

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

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

#### *a. Limitation or Restriction*

- i. The Permittee shall not exceed the following SO<sub>2</sub> emission limits when operating on No. 2 fuel oil: [Permit No. 117-0021]
  - (A) 46.06 lb/hr
  - (B) 0.33 lb/MMBtu
- ii. The Permittee shall not exceed the following SO<sub>2</sub> emission limit from burning No. 2 fuel oil and propane combined: 20.63 TPY. [Permit No. 117-0021]

#### *b. Monitoring Requirements*

Demonstration of compliance with the SO<sub>2</sub> emission limits shall be met by calculating the emission rates using emission factors from the following source: AP-42, Vol. 5<sup>th</sup> Edition. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 117-0021]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of the fuel certification for each delivery of fuel oil from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by this equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel. [Permit No. 117-0021]
- ii. The Permittee shall calculate and record the monthly and consecutive 12 month SO<sub>2</sub> emissions in

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units of tons. 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 for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 117-0021]

- iii. The Permittee shall make and keep records sufficient to demonstrate compliance with the lb/hr and lb/MMBtu emission limits for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

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

#### a. Limitation or Restriction

- i. The Permittee shall not exceed the following NO<sub>x</sub> emission limits when operating on No. 2 fuel oil: [Permit No. 117-0021]
  - (A) 27.92 lb/hr
  - (B) 0.20 lb/MMBtu
- ii. The Permittee shall not exceed the following NO<sub>x</sub> emission limit from burning No. 2 fuel oil and propane combined: 12.50 TPY. [Permit No. 117-0021]
- iii. Phase 1 (6/1/18-5/31/23), the Permittee shall not exceed the following NO<sub>x</sub> emission limits when operating on No. 2 fuel oil: [RCSA §22a-174-22e(d)(3)(A)]
  - (A) 0.20 lb/MMBtu (24 hour daily average)
- iv. Phase 2 (on or after 6/1/23), the Permittee shall not exceed the following NO<sub>x</sub> emission limit when operating on No. 2 fuel oil: [RCSA §22a-174-22e(d)(3)(C)]
  - (A) 0.15 lb/MMBtu (24 hour daily average)

#### b. Monitoring and Testing Requirements

- i. The Permittee shall demonstrate compliance with the applicable emission limitations of RCSA §22a-174-22e by conducting periodic emissions testing in accordance with RCSA §22a-174-22e(l). [RCSA §22a-174-22e(d)(12) and -22e(l)(1)(A)]
- ii. The Permittee shall conduct an initial emissions test on a date during Phase 1 that is no more than 63 calendar months following the date of the last emission test performed pursuant to former section RCSA §22a-174-22(k). [RCSA §22a-174-22e(l)(4)]
- iii. The Permittee shall conduct the emission test following the initial emission test on a date after 5/31/23 and no later than 6/1/25. Subsequently, the Permittee shall conduct emission tests within every 63 calendar months following the date the previous emission test was conducted or the date

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the previous emission test was required to be conducted, whichever is earlier.  
[RCSA §22a-174-22e(1)(5)]

- iv. Each emission test shall be conducted in accordance with RCSA §22a-174-5 and compliance with the emissions limitations of RCSA §22a-174-22e shall be determined based on the average of three one-hour tests, each performed over a consecutive 60-minute period except as follows:  
[RCSA §§22a-174-22e(1)(6)(A) and (B)]
    - (A) As otherwise specified in an applicable New Source Performance Standard in 40 CFR Part 60; or
    - (B) If the commissioner determines that three one-hour tests are not reasonable given the location, configuration or operating conditions of an emission unit, the commissioner may approve testing where compliance with the emissions limitations of RCSA §22a-174-22e shall be determined based on the average of test runs shorter than a one-hour period. For the first time that an emissions unit is tested with a shorter than one-hour test run as provided in RCSA §22a-174-22e, approval of the commissioner for a shorter than one-hour test run shall be received prior to testing by submissions of a request to the commissioner at least 120 days prior to the scheduled testing. The request shall specify a test run duration and describe why a shorter time period is necessary.
  
  - v. The Permittee shall demonstrate compliance with of RCSA §22a-174-22e using sampling and analytical procedures under 40 CFR Part 60, Appendix A or, for affected units, under 40 CFR Part 75, or under procedures in RCSA §22a-174-5(d). Sampling shall be conducted when the emission unit is at normal operating temperature and unless allowed otherwise by the commissioner in a permit or order, is operating at or above 90% of maximum capacity, except as follows:  
[RCSA §§22a-174-22e(1)(7)(A) and (B)]
    - (A) If the commissioner determines that operating at or above 90% of maximum capacity for an emission unit during sampling is not reasonable given the location, configuration or operating conditions of an emission unit, the commissioner may approve testing of an emission unit at an alternative maximum capacity where compliance with the emission limitations of RCSA §22a-174-22e(d) shall be determined based on operating at or above 90% of the alternative maximum capacity approved by the commissioner; and
    - (B) Any emission unit that has operated in excess of 100% of its maximum capacity at any time since the most recent performance test performed pursuant to RCSA §22a-174-22e shall be tested when the emission unit is operating at or above 90% of its highest operating rate since the most recent performance test performed pursuant to RCSA §22a-174-22e.
  
  - vi. If the Permittee is unable to conduct scheduled emission testing required by RCSA §22a-174-22e due to force majeure, the Permittee shall conduct the required emission testing as soon as practicable after the force majeure event occurs. [RCSA §22a-174-22e(1)(8)]
- c. *Record Keeping Requirements*
- i. The Permittee shall calculate and record the monthly and consecutive 12 month NO<sub>x</sub> emissions in units of tons. 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 for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 117-0021]

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- ii. The Permittee shall retain all records and reports produced pursuant to RCSA §22a-174-22e for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. Such records and reports shall be retained at the premises where the emission unit is located, unless the commissioner approves in writing the use of another location in Connecticut. [RCSA §22a-174-22e(j)(1)]
- iii. The Permittee shall make and keep the following records:
  - (A) The date and work performed for repairs, replacement of parts and other maintenance. [RCSA §22a-174-22e(j)(2)(B)]
  - (B) 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)]
  - (C) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and [RCSA §22a-174-22e(j)(2)(F)]
  - (D) 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)]
- iv. The Permittee shall make and keep records sufficient to demonstrate compliance with the lb/hr and lb/MMBtu emission limits for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### *d. Reporting Requirements*

Not more than 60 days after the completion of emission tests conducted under RCSA §22a-174-22e(l), the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22e(k)(1)]

### **6. Opacity**

#### *a. Limitation or Restriction*

- i. The Permittee shall not exceed the following visible emissions limits: [Permit No. 117-0021; RCSA §§22a-174-18(b)(1)(A) and (B)]
  - (A) Twenty percent (20%) opacity during any six-minute block average as measured by 40 CFR Part 60, Appendix A, Reference Method 9; or
  - (B) Forty percent (40%) opacity as measured by 40 CFR Part 60, Appendix A, Reference Method 9, reduced to a one-minute block average.

#### *b. Monitoring Requirements*

Record keeping specified in Section III.B.6.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii)]



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#### *c. Record Keeping Requirements*

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.B.6.a of this Title V permit. [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. Operation and Maintenance**

#### *a. Limitation or Restriction*

The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and good engineering practices. [Permit No. 117-0021]

#### *b. Monitoring Requirements*

Record keeping specified in Section III.B.7.c. of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### *c. Record Keeping Requirements*

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.B.7.a of this Title V permit. [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)]

### **8. Work Practice**

#### *a. Limitation or Restriction*

- i. The Permittee shall conduct a tune-up of the boiler every five years to demonstrate continuous compliance.  
[40 CFR §63.7500(c); 40 CFR §63.7540(a)(12); 40 CFR Part 63 Subpart DDDDD, Table 3, No. 1]
- ii. The tune-up shall consist of the following:  
[40 CFR §§63.7540(a)(10)(i)-(v); 40 CFR §63.7540(a)(12)]
  - (A) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may delay the burner inspection until the next scheduled unit shutdown but the Permittee shall inspect each burner at least once every 72 months). Units

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that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

- (B) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
  - (C) Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly (the Permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;
  - (D) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<sub>x</sub> requirement to which the unit is subject; and
  - (E) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
- iii. If the unit is not operating on the required date for a tune-up, the tune-up shall be conducted within 30 calendar days of startup. [40 CFR §63.7540(a)(13)]

#### *b. Monitoring Requirements*

The Permittee shall demonstrate continuous compliance with the applicable work practice standards in 40 CFR Part 63 Subpart DDDDD, Table 3. [40 CFR §63.7540(a)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make, keep on-site and submit, if requested by the Administrator, an annual report containing the following information: [40 CFR §§63.7540(a)(10)(vi)(A)-(C)]
  - (A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
  - (B) A description of any corrective actions taken as a part of the tune-up; and
  - (C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.
- ii. The Permittee shall make and keep the following records: [40 CFR §§63.7555(a)(1) and (2)]
  - (A) A copy of each notification and report submitted to comply with 40 CFR Part 63 Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of

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Compliance Status or semiannual compliance report submitted, according to the requirements in 40 CFR §63.10(b)(2)(xiv).

- (B) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 CFR §63.10(b)(2)(viii).
- iii. The Permittee's records shall be in a form suitable and readily available for expeditious review, according to 40 CFR §63.10(b)(1). [40 CFR §63.7560(a)]
- iv. As specified in 40 CFR §63.10(b)(1), the Permittee shall keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR §63.7560(b)]
- v. The Permittee shall keep each record on site, or they shall be accessible from on-site (for example, through a computer network), for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR §63.10(b)(1). The Permittee can keep the records off site for the remaining three years. [40 CFR §63.7560(c)]

#### *d. Reporting Requirements*

- i. The Permittee shall submit to the Administrator all of the applicable notifications in 40 CFR §§63.7(b) and (c), 40 CFR §§63.8(e), (f)(4) and (6), and 40 CFR §§63.9(b) through (h) by the dates specified. [40 CFR §63.7545(a)]
- ii. The Permittee shall submit five year compliance report instead of a semiannual compliance report, as specified below: [40 CFR §§63.7550(b)(1)-(4)]
  - (A) Each subsequent compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Five year compliance reports shall cover the applicable five year periods from January 1 to December 31.
  - (B) Each subsequent semiannual compliance report shall be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Five year compliance reports shall be postmarked or submitted no later than January 31.
- iii. The five year compliance report shall contain the following information: [40 CFR §§63.7550(c)(5)(i)-(iv) and (xiv)]
  - (A) Company and Facility name and address;
  - (B) Process unit information, emissions limitations, and operating parameter limitations;
  - (C) Date of report and beginning and ending dates of the reporting period;
  - (D) The total operating time during the reporting period; and
  - (E) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct 5-year tune-up according to 40 CFR §63.7540(a)(12). Include the date of the most recent burner inspection if it was not done on a five year period and was delayed until the

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next scheduled or unscheduled unit shutdown.

- iv. The Permittee shall submit all reports required by 40 CFR Part 63 Subpart DDDDD, Table 9 electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The Permittee shall use the appropriate electronic report in CEDRI for 40 CFR Part 63 Subpart DDDDD. Instead of using the electronic report in CEDRI for 40 CFR Part 63 Subpart DDDDD, the Permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to 40 CFR Part 63 Subpart DDDDD is not available in CEDRI at the time that the report is due, the Permittee shall submit the report to the Administrator at the appropriate address listed in 40 CFR §63.13. The Permittee shall begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [40 CFR §63.7550(h)(3)]

#### C. EU-3 (Combustion Turbine Emergency Generator)

##### 1. Hours of Operation

###### a. Limitation or Restriction

The generator shall not be operated except during periods of testing and scheduled maintenance or during an emergency and operation shall not exceed 300 hours during any 12 month rolling aggregate. [RCSA §22a-174-3b(e)(2)(C)]

###### b. Monitoring Requirements

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

###### c. Record Keeping Requirements

The Permittee shall make and keep records of the hours of operation for each month and each 12 month rolling aggregate. Such records shall include the date and purpose the emergency generator was operated. [RCSA §22a-174-3b(e)(4)]

###### d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

##### 2. Fuel Sulfur Content

###### a. Limitation or Restriction

Any nongaseous fuel consumed by the engine shall not exceed the sulfur content of "motor vehicle diesel fuel" as defined in RCSA §22a-174-42(a). [RCSA §22a-174-3b(e)(2)(D)]

###### b. Monitoring Requirements

Record keeping specified in Section III.C.2.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

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*c. Record Keeping Requirements*

The Permittee shall make and keep records of a fuel certification for each delivery of nongaseous fuel from a bulk petroleum provider or a sales receipt for the sale of motor vehicle diesel fuel from a retail location or 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. [RCSA §22a-174-3b(h)]

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

*a. Limitation or Restriction*

The Permittee 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 Permittee is no longer prohibited from operating the engine for routine, scheduled testing or maintenance for the remainder of that day. The Permittee may rely on an ozone forecast of "moderate" or lower obtained after 3 p.m. on the preceding day. Subsequent changes to the ozone forecast after 3 p.m. that forecast ozone levels of "moderate to unhealthy for sensitive groups" or greater shall not obligate the Permittee to refrain from operation of the emergency engine at the facility on the following day. The commissioner may exempt, by permit or order, the Permittee from RCSA §22a-174-22e(d) if such emergency engine is unattended and the testing is automated and cannot be modified from a remote location. [RCSA §22a-174-22e(d)(14)]

*b. Monitoring Requirements*

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

*c. Record Keeping Requirements*

- i. The Permittee shall retain all records and reports produced pursuant to RCSA §22a-174-22e for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. Such records and reports shall be retained at the premises where the emission unit is located, unless the commissioner approves in writing the use of another location in Connecticut. [RCSA §22a-174-22e(j)(1)]
- ii. The Permittee shall make and keep the following records: [RCSA §22a-174-22e(j)(2)]
  - (A) The date and work performed for repairs, replacement of parts and other maintenance. [RCSA §22a-174-22e(j)(2)(B)]
  - (B) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and [RCSA §22a-174-22e(j)(2)(F)]

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- (C) Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(G)]

#### *d. Reporting Requirements*

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

#### **4. Operation and Maintenance**

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

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

##### *b. Monitoring Requirements*

Record keeping specified in Section III.C.4.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

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

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.C.4.a of this Title V permit. [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)]

#### **D. EU-4 (Fire Pump Engine)**

**RICE MACT Designation: Emergency, Existing CI, ≤ 500 Bhp, Constructed before 6/12/06**

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

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

- i. The Permittee shall properly maintain equipment and operate such engine in accordance with RCSA §22a-174-3b(e). [RCSA §22a-174-3b(e)(1)]
- ii. The Permittee shall meet the following requirements, except during periods of startup: [40 CFR §63.6602; 40 CFR §63.6640(a); 40 CFR Part 63 Subpart ZZZZ, Table 2c, No. 1]

- (A) Change oil and filter every 500 hours of operation or annually, whichever comes first;

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- (B) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- (C) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- iii. During periods of startup, the Permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6625(h); 40 CFR Part 63 Subpart ZZZZ, Table 2c, No. 1]
- iv. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in 40 CFR Part 63 Subpart ZZZZ, Table 2c, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. [40 CFR Part 63 Subpart ZZZZ, Table 2c, Footnote 1]
- v. The Permittee shall be in compliance with the applicable emission limitation and other requirements in 40 CFR Part 63 Subpart ZZZZ at all times. [40 CFR §63.6605(a)]
- vi. The Permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]
- vii. The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in 40 CFR Part 63 Subpart ZZZZ, Table 2c. The oil analysis shall be performed at the same frequency specified for changing the oil in 40 CFR Part 63 Subpart ZZZZ, Table 2c. The analysis program shall at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee shall change the oil within two business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the Permittee shall change the oil within two business days or before commencing operation, whichever is later. The analysis program shall be part of the maintenance plan for the engine. [40 CFR §63.6625(i); 40 CFR Part 63 Subpart ZZZZ, Table 2c, Footnote 2]
- viii. The Permittee can petition the Administrator pursuant to the requirements of 40 CFR §63.6(g) for alternative work practices. [40 CFR Part 63 Subpart ZZZZ, Table 2c, Footnote 3]
- ix. At all times the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels

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required by the standards of 40 CFR Part 63 Subpart ZZZZ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR §63.6605(b)]

- x. The Permittee shall operate the emergency stationary RICE according to the requirements in 40 CFR §§63.6640(f)(1), (f)(2)(i) and (f)(3). Any operation other than emergency operation and maintenance and testing as described in 40 CFR §63.6640(f)(1), (f)(2)(i), or non-emergency use in 40 CFR §63.6640(f)(3) is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR §§63.6640(f)(1), (f)(2)(i), and (f)(3), the engine will not be considered an emergency engine under 40 CFR Part 63 Subpart ZZZZ and will need to meet all requirements for non-emergency engine. [40 CFR §63.6640(f)]
- xi. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR §63.6640(f)(1)]
- xii. The Permittee may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [40 CFR §63.6640(f)(2)(i)]
- xiii. The Permittee may operate the engine for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph 40 CFR §63.6640(f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR §63.6640(f)(3)]
- xiv. The Permittee shall comply with the applicable General Provisions requirements according to 40 CFR Part 63 Subpart ZZZZ, Table 8. [40 CFR §63.6665; 40 CFR Part 63 Subpart ZZZZ, Table 8]

#### *b. Monitoring Requirements*

- i. The Permittee shall demonstrate continuous compliance by:  
[40 CFR §63.6640(a); 40 CFR Part 63 Subpart ZZZZ, Table 6, No. 9]
  - (A) Operating and maintaining the stationary RICE according to the manufacturer's emission – related operation and maintenance instructions; or
  - (B) Develop and follow the Permittee's own maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.



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#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of the parameters that are analyzed as part of the oil analysis program, the results of the analysis, and the oil changes for the engine.  
[40 CFR §63.6625(i)]
- ii. The Permittee shall make and keep the following records: [40 CFR §§63.6655(a)(1)-(5)]
  - (A) A copy of each notification and report submitted to comply with 40 CFR Part 63 Subpart ZZZZ, including all documentation supporting any Notification of Compliance Status submitted, according to the requirement in 40 CFR §63.10(b)(2)(xiv).
  - (B) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
  - (C) Records of performance tests and performance evaluations as required in 40 CFR §63.10(b)(2)(viii).
  - (D) Records of all required maintenance performed on the air pollution control and monitoring equipment.
  - (E) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- iii. The Permittee shall make and keep the records required in 40 CFR Part 63 Subpart ZZZZ, Table 6 to show continuous compliance with each applicable emission or operating limitation.  
[40 CFR §63.6640(a); 40 CFR §63.6655(d); 40 CFR Part 63 Subpart ZZZZ, Table 6]
- iv. The Permittee shall make and keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the Permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the Permittee's own maintenance plan.  
[40 CFR §63.6655(e)]
- v. The Permittee's records shall be in a form suitable and readily available for expeditious review according to 40 CFR §63.10(b)(1). [40 CFR §63.6660(a)]
- vi. As specified in 40 CFR §63.10(b)(1), the Permittee shall keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.  
[40 CFR §63.6660(b)]
- vii. The Permittee shall keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR §63.10(b)(1). [40 CFR §63.6660(c)]

#### *d. Reporting Requirements*

- i. The Permittee shall report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.  
[40 CFR Part 63 Subpart ZZZZ, Table 2c, Footnote 1]

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- ii. The Permittee shall report each instance in which they did not meet each applicable emission limitation or operating limitation in 40 CFR Part 63 Subpart ZZZZ, Table 2c. These instances are deviations from the emission and operating limitations in 40 CFR Part 63 Subpart ZZZZ. These deviations shall be reported according to the requirements in 40 CFR §63.6650. [40 CFR §63.6640(b)]
- iii. The Permittee shall also report each instance in which they did not meet the applicable requirements in 40 CFR Part 63 Subpart ZZZZ, Table 8. [40 CFR §63.6640(e)]
- v. Each affected source that has obtained a Title V operating permit pursuant to 40 CFR Part 70 or 71 shall report all deviations as defined in 40 CFR Part 63 Subpart ZZZZ in the semiannual monitoring report required by 40 CFR §70.6(a)(3)(iii)(A) or 40 CFR §71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in 40 CFR Part 63 Subpart ZZZZ, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. [40 CFR §63.6650(f)]

#### **2. Maximum Hours of Operation**

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

The generator shall not be operated except during periods of testing and scheduled maintenance or during an emergency and operation shall not exceed 300 hours during any 12 month rolling aggregate. [RCSA §22a-174-3b(e)(2)(C)]

##### *b. Monitoring Requirements*

The Permittee shall install a non-resettable hour meter if one is not already installed. [40 CFR §63.6625(f)]

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

- i. The Permittee shall make and keep records of the hours of operation for each month and each 12 month rolling aggregate. Such records shall include the date and purpose the emergency generator was operated. [RCSA §22a-174-3b(e)(4)]
- ii. The Permittee shall make and keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee shall 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 §63.6655(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 §22a-174-33(j)(1)(X)]

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### 3. Fuel Sulfur Content

#### a. Limitation or Restriction

- i. Any nongaseous fuel consumed by the engine shall not exceed the sulfur content of “motor vehicle diesel fuel” as defined in RCSA §22a-174-42(a). [RCSA §22a-174-3b(e)(2)(D)]
- ii. The Permittee shall use diesel fuel that meets the requirements in 40 CFR §80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. [40 CFR §63.6604(b)]

#### b. Monitoring Requirements

The Permittee shall monitor the sulfur content of the fuel used by the emergency generator, using either a fuel certification for a delivery of nongaseous fuel from a bulk petroleum provider or 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. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### c. Record Keeping Requirements

The Permittee shall make and keep records of: a fuel certification for a delivery of nongaseous fuel from a bulk petroleum provider or a sales receipt for the sale of motor vehicle diesel fuel from a retail location or 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. [RCSA §22a-174-3b(h)]

#### d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner’s request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

### E. GEU-1 (3 Combustion Turbines)

#### 1. Maximum Fuel Usage: Natural Gas and ULSD

##### a. Limitation or Restriction

- i. Maximum Natural Gas Consumption over any Consecutive 12 Month Period: 1,564 MMscf/yr (combined for all units) [Permit Nos. 117-0373, 117-0374 and 117-0375]
- ii. Maximum Ultra Low Sulfur Distillate (ULSD) Consumption over any Consecutive 12 Month Period: 5,503 Mgal/yr (combined for all units) [Permit Nos. 117-0373, 117-0374 and 117-0375]
- iii. Maximum ULSD Sulfur Content (% by weight, dry basis): 0.0015 [Permit Nos. 117-0373, 117-0374 and 117-0375]
- iv. The primary fuel for these turbines shall be natural gas when physically available. The turbines shall fire ULSD only during periods when the physical supply of natural gas is unavailable, as determined by the Southern Connecticut Gas Company or its successor. During periods of natural gas availability, the turbines may operate on ULSD if required for emission testing, maintenance testing, of any equipment that requires ULSD operation, and unit testing requested by ISO-NE. The

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Maximum Fuel Consumption over any Consecutive 12 Month Period outlined above is for all three turbines combined (covered by Permit Nos. 117-0373, 117-0374 and 117-0375). [Permit Nos. 117-0373, 117-0374 and 117-0375]

#### *b. Monitoring Requirements*

- i. The Permittee shall use individual non-resettable totalizing fuel metering devices or billing meters to continuously monitor fuel feed to the turbine. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- ii. The Permittee shall install, calibrate, maintain and operate a fuel flow meter (or flow meters) to continuously measure the heat input to the affected unit. [40 CFR §60.4335(b)(2)]
- iii. Each fuel flow meter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. [40 CFR §60.4345(c)]
- iv. All required fuel flow rate data shall be reduced to hourly averages. [40 CFR §60.4350(e)]
- v. The Permittee shall use the following equation to determine the allowable fuel usage: [Permit Nos. 117-0373, 117-0374 and 117-0375]

$$\text{Maximum Natural Gas Use} = 1,564 \text{ MMscf/yr} - (0.28421) \times (\text{Fuel}_{\text{ULSD}})$$

Where:

1,564 MMscf/yr = Maximum Annual Consumption of Natural Gas  
when no ULSD is burned

0.28421 = Constant

Fuel<sub>ULSD</sub> = Mgal/yr of ULSD burned (Not to exceed 5,503 Mgal/yr)

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of monthly and consecutive 12 month fuel consumption (for each fuel). The consecutive 12 month fuel consumption shall be determined by adding (for each fuel) the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- ii. The Permittee shall make and keep records of all exceedances of any operating parameter. Such records shall include: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (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 develop and keep on-site a quality assurance (QA) plan for the fuel flow meters. [40 CFR §60.4345(e)]

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#### d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

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

#### a. Limitation or Restriction

- i. For each turbine, the Permittee shall not exceed the following PM<sub>10</sub>/PM<sub>2.5</sub> emission limit when firing natural gas: 6.00 lb/hr. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- ii. For each turbine, the Permittee shall not exceed the following PM<sub>10</sub>/PM<sub>2.5</sub> emission limit when firing ULSD: 12.0 lb/hr. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- iii. For the three turbines combined, the Permittee shall not exceed the following PM<sub>10</sub>/PM<sub>2.5</sub> emission limit when firing natural gas and ULSD combined: 9.9 tons per 12 consecutive months. [Permit Nos. 117-0373, 117-0374 and 117-0375]

#### b. Monitoring Requirements

Demonstration of compliance with the emission limits shall be met by calculating the emission rate using emission factors from stack test data. [Permit Nos. 117-0373, 117-0374 and 117-0375]

#### c. Record Keeping Requirements

- i. The Permittee shall make and keep records sufficient to demonstrate compliance with the lb/hr emission limits for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]
- ii. The Permittee shall calculate and record the monthly and consecutive 12 month PM<sub>10</sub>/PM<sub>2.5</sub> emissions for each turbine in GEU-1 in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. The Permittee shall total the emissions from all turbines in GEU-1. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- iii. The Permittee shall make and keep records of all exceedances of any emissions limitation. Such records shall include: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (A) The date and time of the exceedance;
  - (B) A detailed description of the exceedance; and
  - (C) The duration of the exceedance.

#### 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,

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

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

##### a. Limitation or Restriction

- i. For each turbine, the Permittee shall not exceed the following SO<sub>2</sub> emission limit when firing natural gas: 0.95 lb/hr. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- ii. For each turbine, the Permittee shall not exceed the following SO<sub>2</sub> emission limit when firing ULSD: 0.72 lb/hr. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- iii. For the three turbines combined, the Permittee shall not exceed the following SO<sub>2</sub> emission limit when firing natural gas and ULSD combined: 1.6 tons per 12 consecutive months. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- iv. The Permittee shall not burn in the subject stationary combustion turbines any fuel which contains total potential sulfur emissions in excess of 26 ng SO<sub>2</sub>/J (nanograms per Joule) (0.060 lb SO<sub>2</sub>/MMBtu) heat input. If the turbines simultaneously fire multiple fuels, each fuel shall meet this requirement. [40 CFR §60.4330(a)(2)]

##### b. Monitoring Requirements

- i. The Permittee shall maintain certifications from the fuel supplier specifying that the maximum sulfur content of ULSD is 0.0015% and the total sulfur content for natural gas is 20 grains of sulfur or less per 100 standard cubic feet. [40 CFR §60.4365(a)]
- ii. Demonstration of compliance with the emission limits shall be met by calculating the emission rate using emission factors from manufacturer's data. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- iii. The Permittee shall immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.05 weight percent. The Permittee shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and the Permittee shall evaluate excess emissions according to 40 CFR §60.4385(a). When all of the fuel from the delivery has been burned, the Permittee may resume using the as-delivered sampling option. [40 CFR §60.4385(b)]

##### c. Record Keeping Requirements

- i. The Permittee shall calculate and record the monthly and consecutive 12 month SO<sub>2</sub> emissions for each turbine in GEU-1 in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. The Permittee shall total the emissions from all turbines in GEU-1. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- ii. The Permittee shall make and 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 oil as a

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condition of each shipment. The shipping receipt or contract shall include:  
[Permit Nos. 117-0373, 117-0374, 117-0375]

- (A) Date of delivery;
  - (B) Name of the fuel supplier;
  - (C) Type of fuel oil delivered;
  - (D) Percentage of sulfur in such fuel, by weight, dry basis; and
  - (E) The method used to determine the sulfur content of such fuel oil.
- iii. The Permittee shall make and keep records of all exceedances of any emissions limit or operating parameter. Such records shall include: [Permit Nos. 117-0373, 117-0374 and 117-0375]
- (A) The date and time of the exceedance;
  - (B) A detailed description of the exceedance; and
  - (C) The duration of the exceedance.
- iv. The Permittee shall make and keep records sufficient to demonstrate compliance with the lb/hr emission limits for each fuel. [RCSA §22a-174-33(j)(l)(K)(ii)]

#### *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>x</sub>

### *a. Limitation or Restriction*

- i. For each turbine, the Permittee shall not exceed the following NO<sub>x</sub> emission limits when firing natural gas: [Permit Nos. 117-0373, 117-0374, 117-0375; 40 CFR §60.4320(a)]
  - (A) 4.38 lb/hr
  - (B) 2.5 ppmvd @ 15% O<sub>2</sub>
- ii. For each turbine, the Permittee shall not exceed the following NO<sub>x</sub> emission limits when firing ULSD: [Permit Nos. 117-0373, 117-0374, 117-0375; 40 CFR §60.4320(a)]
  - (A) 7.47 lb/hr
  - (B) 5.0 ppmvd @ 15% O<sub>2</sub>
- iii. For the three turbines combined, the Permittee shall not exceed the following NO<sub>x</sub> emission limit when firing natural gas and ULSD combined: 11.5 tons per 12 consecutive months.

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[Permit Nos. 117-0373, 117-0374 and 117-0375]

- iv. For each turbine, Phase 1 (6/1/18-5/31/23), the Permittee shall not exceed the following NO<sub>x</sub> emission limits when operating on natural gas:  
[RCSA §§22a-174-22e(d)(4)(A) and (B) and -22e(d)(16)]
  - (A) 55 ppmvd @ 15%O<sub>2</sub> (24 hour daily average)
  - (B) 50 ppmvd @ 15%O<sub>2</sub> or 0.18 lb/MMBtu (ozone season average: May 1-September 30)
  - (C) 0.15 lb/MMBtu (non-ozone season average: October 1-April 30)
- v. For each turbine, Phase 1 (6/1/18-5/31/23), the Permittee shall not exceed the following NO<sub>x</sub> emission limits when operating on ULSD:  
[RCSA §§22a-174-22e(d)(4)(A) and (B) and -22e(d)(16)]
  - (A) 75 ppmvd @ 15%O<sub>2</sub> (24 hour daily average)
  - (B) 50 ppmvd @ 15%O<sub>2</sub> or 0.19 lb/MMBtu (ozone season average: May 1-September 30)
  - (C) 0.15 lb/MMBtu (non-ozone season average: October 1-April 30)
- vi. For each turbine, Phase 2 (on or after 6/1/23), the Permittee shall not exceed the following NO<sub>x</sub> emission limits when operating on natural gas: 40 ppmvd @ 15%O<sub>2</sub>.  
[RCSA §§22a-174-22e(d)(4)(C) and -22e(d)(16)]
- vii. For each turbine, Phase 2 (on or after 6/1/23), the Permittee shall not exceed the following NO<sub>x</sub> emission limits when operating on ULSD:  
[RCSA §§22a-174-22e(d)(4)(C) and (D) and -22e(d)(16)]
  - (A) 50 ppmvd @ 15%O<sub>2</sub> (24 hour daily average)
  - (B) 0.15 lb/MMBtu (non-ozone season average: October 1-April 30)

#### *b. Monitoring Requirements*

- i. The Permittee shall install, calibrate, certify, maintain and operate a CEMS consisting of NO<sub>x</sub> and oxygen monitors to determine the hourly NO<sub>x</sub> emission rates parts per million volume dry (ppmvd).  
[Permit Nos. 117-0373, 117-0374, 117-0375; RCSA 22a-174-22e(m)(1); 40 CFR §60.4335(b)(1)]
- ii. Demonstration of compliance with the emission limits shall be met by calculating the emission rate using CEMS data. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- iii. The Permittee shall calculate an emission unit's non-ozone season emission rate as the sum of the emission unit's NO<sub>x</sub> emissions during the period from October 1 through April 30, inclusive, divided by the sum of the emission unit's heat input during the period of October 1 through April 30, inclusive. [RCSA §22a-174-22e(d)(19)]
- iv. The Permittee shall calculate an emission unit's ozone season emission rate as the sum of the emission unit's NO<sub>x</sub> emissions while firing the applicable fuel during the period from May 1 through September 30, inclusive, divided by the sum of the emission unit's heat input while firing



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the applicable fuel during the period from May 1 through September 30 inclusive  
[RCSA §22a-174-22e(d)(20)]

- v. The Permittee shall collect quality assured CEM 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)]
- vi. Emissions data used to determine compliance with the applicable emissions limitations of RCSA §22a-174-22e(d) shall not include data collected during the following periods:  
[RCSA §22a-174-22e(m)(3)]
  - (A) When the monitoring system is out-of-control as specified in the facility-specific monitoring plan;
  - (B) While conducting required monitoring system quality assurance or quality control activities, including calibration checks and required zero and span adjustments;
  - (C) While conducting maintenance or repairs of the monitoring system to prevent or correct a malfunction; or
  - (D) When the emission unit is not operating.
- vii. Compliance with the seasonal limits of RCSA §22a-174-22e(d) shall be determined using emissions and operating data for the entire five-month period for an ozone season emissions limitation or for the entire seven-month period for a non-ozone season emissions limitation, except for the 2018 or 2023 ozone season, compliance shall be determined based on data collected June 1 through September 30. [RCSA §22a-174-22e(m)(5)]

#### c. Record Keeping Requirements

- i. The Permittee shall calculate and record the monthly and consecutive 12 month NO<sub>x</sub> emissions for each turbine in GEU-1 in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. The Permittee shall total the emissions from all turbines in GEU-1. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- ii. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (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 retain all records and reports produced pursuant to RCSA §22a-174-22e for five years. Such records and reports shall be available for inspection at reasonable hours by the

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commissioner or the Administrator. Such records and reports shall be retained at the premises where the emission unit is located, unless the commissioner approves in writing the use of another location in Connecticut. [RCSA §22a-174-22e(j)(1)]

- iv. The Permittee shall make and keep the following records:
  - (A) The Permittee shall make and keep records of the date and work performed for repairs, replacement of parts and other maintenance. [RCSA §22a-174-22e(j)(2)(B)]
  - (B) For an emission unit that has or is required to have a CEM system for NO<sub>x</sub>: [RCSA §22a-174-22e(j)(2)(D)]
    - (1) Records of all performance evaluations, calibration checks and adjustments on such monitor,
    - (2) A record of maintenance performed,
    - (3) All data necessary to complete the quarterly reports required under RCSA §22a-174-22e(k)(3), and
    - (4) Charts, electronically stored data, and printed records produced by such CEM as needed to demonstrate compliance with the requirements of RCSA §22a-174-22e.
  - (C) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and [RCSA §22a-174-22e(j)(2)(F)]
  - (D) 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)]
- v. The Permittee shall develop and keep on-site a QA plan for the NO<sub>x</sub> CEMS. [40 CFR §60.4345(e)]
- vi. The Permittee shall make and keep records sufficient to demonstrate compliance with the lb/hr and ppmvd emission limits for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]
- vii. The Permittee shall make and keep records sufficient to demonstrate that GEU-1 complies with all applicable requirements of RCSA §22a-174-22c and the standard requirements of the CAIR permit application. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### *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 CEM system 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)-(G)]
  - (A) All daily block average data, in a format acceptable to the commissioner, for the three

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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 emission;
  - (E) The date and time when each malfunction of the CEM system commenced and ended;
  - (F) Actions taken to correct each malfunction; and
  - (G) If not excess emissions or CEM system malfunctions occur during a quarter, the Permittee 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 CEM 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 any CEM for NO<sub>x</sub>. Any such testing shall be conducted in accordance with a testing protocol approved by the commissioner. Any CEM for NO<sub>x</sub> shall be installed, calibrated and operated in accordance with the performance and quality assurance specifications contained in RCSA §22a-174-4 and 40 CFR Part 60 Subpart A, Appendix B and Appendix F, or, for affected units 40 CFR Part 75. [RCSA §22a-174-22e(m)(4)]
  - v. The Permittee shall submit reports of excess emissions and monitoring downtime, in accordance with 40 CFR §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. Excess emissions and monitor downtime are defined in 40 CFR §60.4380. [40 CFR §60.4375(a)]

#### 5. VOC

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

- i. For each turbine, the Permittee shall not exceed the following VOC emission limits when firing natural gas: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (A) 1.11 lb/hr
  - (B) 2.0 ppmvd @ 15% O<sub>2</sub>
- ii. For each turbine, the Permittee shall not exceed the following VOC emission limits when firing ULSD: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (A) 0.79 lb/hr
  - (B) 1.3 ppmvd @ 15% O<sub>2</sub>
- iii. For the three turbines combined, the Permittee shall not exceed the following VOC emission limit when firing natural gas and ULSD combined: 2.1 tons per 12 consecutive months.

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[Permit Nos. 117-0373, 117-0374 and 117-0375]

#### *b. Monitoring Requirements*

Demonstration of compliance with the emission limits shall be met by calculating the emission rate using emission factors from manufacturer's data. [Permit Nos. 117-0373, 117-0374 and 117-0375]

#### *c. Record Keeping Requirements*

- i. The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions for each turbine in GEU-1 in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. The Permittee shall total the emissions from all turbines in GEU-1. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- ii. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (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 make and keep records sufficient to demonstrate compliance with the lb/hr and ppmvd emission limits for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### *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. For each turbine, the Permittee shall not exceed the following CO emission limits when firing natural gas: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (A) 5.12 lb/hr
  - (B) 5.0 ppmvd @ 15% O<sub>2</sub>
- ii. For each turbine, the Permittee shall not exceed the following CO emission limits when firing ULSD: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (A) 1.00 lb/hr

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(B) 0.93 ppmvd @ 15% O<sub>2</sub>

- iii. For the three turbines combined, the Permittee shall not exceed the following CO emission limit when firing natural gas and ULSD combined: 12.7 tons per 12 consecutive months. [Permit Nos. 117-0373, 117-0374 and 117-0375]

#### *b. Monitoring Requirements*

- i. The Permittee shall continuously monitor the oxidation catalyst inlet temperature (°F). The Permittee shall maintain a 4-hour rolling average of the catalyst inlet temperature within the range recommended by the manufacturer to achieve compliance with the emission limits. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- ii. The Permittee shall install, calibrate, certify, maintain and operate a CEMS consisting of CO and oxygen monitors to determine the hourly CO emission rates. When firing ULSD, to account for relative accuracy and calibration drift of the CO CEMS, a maximum error of 1.0 ppm is allowed. Therefore, any CO emissions measurement obtained from the CEMS that is less than or equal to 1.93 ppm (and equivalent lb/hr conversion) shall be considered in compliance with the applicable CO emission limits of this permit. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- iii. Demonstration of compliance with the emission limits shall be met by calculating the emission rate using CEMS data. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- iv. The Permittee shall perform recurrent stack test for ULSD firing only, once every five years from the date of the previous test to demonstrate compliance with the emission limits. [Permit Nos. 117-0373, 117-0374 and 117-0375]

#### *c. Record Keeping Requirements*

- i. The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions for each turbine in GEU-1 in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. The Permittee shall total the emissions from all turbines in GEU-1. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- ii. The Permittee shall continuously record the oxidation catalyst inlet temperature (°F). The Permittee shall maintain a 4-hour rolling average of the catalyst inlet temperature within the range recommended by the manufacturer to achieve compliance with the emission limits. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- iii. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (A) The date and time of the exceedance;
  - (B) A detailed description of the exceedance; and
  - (C) The duration of the exceedance.

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- iv. The Permittee shall make and keep records sufficient to demonstrate compliance with the lb/hr and ppmvd emission limits for each fuel. [RCSA §22a-174-33(j)(l)(K)(ii)]

#### *d. Reporting Requirements*

The Permittee shall submit stack test results no later than 60 days after completion of testing. [Permit Nos. 117-0373, 117-0374 and 117-0375]

### **7. Pb**

#### *a. Limitation or Restriction*

- i. For each turbine, the Permittee shall not exceed the following Pb emission limit when firing ULSD: 0.01 lb/hr. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- ii. For the three turbines combined, the Permittee shall not exceed the following Pb emission limit when firing natural gas and ULSD combined: 0.005 tons per 12 consecutive months. [Permit Nos. 117-0373, 117-0374 and 117-0375]

#### *b. Monitoring Requirements*

Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from the latest version of AP-42. [Permit Nos. 117-0373, 117-0374 and 117-0375]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (A) The date and time of the exceedance;
  - (B) A detailed description of the exceedance; and
  - (C) The duration of the exceedance.
- ii. The Permittee shall make and keep records sufficient to demonstrate compliance with the lb/hr and tons per 12 consecutive month emission limits. [RCSA §22a-174-33(j)(l)(K)(ii)]

#### *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**

#### *a. Limitation or Restriction*

The Permittee shall not exceed the following Ammonia emission limit: 5.0 ppmvd @ 15%O<sub>2</sub>. [Permit Nos. 117-0373, 117-0374 and 117-0375]

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

#### *b. Monitoring Requirements*

- i. The Permittee shall continuously monitor the SCR aqueous ammonia injection rate (lb/hr), operating temperature (°F) and pressure drop (inches of water) across the catalyst bed. The Permittee shall maintain these parameters within the ranges recommended by the manufacturer to achieve compliance with the emission limits. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- ii. Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from stack test data. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- iii. The Permittee shall perform recurrent stack test, once every five years from the date of the previous test to demonstrate compliance with the emission limit. [Permit Nos. 117-0373, 117-0374 and 117-0375]

#### *c. Record Keeping Requirements*

- i. The Permittee shall continuously record the SCR aqueous ammonia injection rate (lb/hr), operating temperature (°F) and pressure drop (inches of water) across the catalyst bed. The Permittee shall maintain these parameters within the ranges recommended by the manufacturer to achieve compliance with the emission limits. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- ii. The Permittee shall make and keep records of each delivery of aqueous ammonia. The records shall include the date of delivery, the name of the supplier, the quantity of aqueous ammonia delivered, and the percentage of ammonia in solution, by weight. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- iii. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (A) The date and time of the exceedance;
  - (B) A detailed description of the exceedance; and
  - (C) The duration of the exceedance.
- iv. The Permittee shall make and keep records sufficient to demonstrate compliance with the ppmvd emission limit for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### *d. Reporting Requirements*

The Permittee shall submit stack test results no later than 60 days after completion of testing. [Permit Nos. 117-0373, 117-0374 and 117-0375]

### **9. Formaldehyde**

#### *a. Limitation or Restriction*

The Permittee shall not exceed the following Formaldehyde emission limit: 0.091 ppmvd @ 15%O<sub>2</sub>. [Permit Nos. 117-0373, 117-0374 and 117-0375]

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

*b. Monitoring Requirements*

Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from stack test data. [Permit Nos. 117-0373, 117-0374 and 117-0375]

*c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (A) The date and time of the exceedance;
  - (B) A detailed description of the exceedance; and
  - (C) The duration of the exceedance.
- ii. The Permittee shall make and keep records sufficient to demonstrate compliance with the ppmvd emission limit for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]

*d. Reporting Requirements*

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

#### **10. Startup and Shutdown Events (< 50% Load) or Malfunction**

*a. Limitation or Restriction*

- i. For each startup event while firing natural gas, the Permittee shall not exceed the following emission limits: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (A) NO<sub>x</sub>: 8.20 lb/event
  - (B) VOC: 1.60 lb/event
  - (C) CO: 18.4 lb/event
- ii. For each shutdown event while firing natural gas, the Permittee shall not exceed the following emission limits: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (A) NO<sub>x</sub>: 3.30 lb/event
  - (B) VOC: 0.40 lb/event
  - (C) CO: 9.00 lb/event
- iii. For each startup event while firing ULSD, the Permittee shall not exceed the following emission limits: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (A) NO<sub>x</sub>: 17.7 lb/event



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- (B) VOC: 1.50 lb/event
- (C) CO: 5.10 lb/event
- iv. For each shutdown event while firing ULSD, the Permittee shall not exceed the following emission limits: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (A) NO<sub>x</sub>: 8.90 lb/event
  - (B) VOC: 0.30 lb/event
  - (C) CO: 6.80 lb/event
- v. The Permittee shall not exceed the duration of 30 minutes for a startup event when firing natural gas or ULSD. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- vi. The Permittee shall not exceed the duration of 10 minutes for a shutdown event when firing natural gas or ULSD. [Permit Nos. 117-0373, 117-0374 and 117-0375]

#### *b. Monitoring Requirements*

- i. Demonstration of compliance with the emission limits shall be met by calculating the emission rate using emission factors from manufacturer's data. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- ii. The Permittee shall immediately institute shutdown of the turbines in the event a malfunction cannot be corrected within 60 minutes. [Permit Nos. 117-0373, 117-0374 and 117-0375]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the stationary gas turbines; 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: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (A) Type of event (startup, shutdown, or malfunction);
  - (B) Equipment affected;
  - (C) Date of event;
  - (D) Duration of event (minutes);
  - (E) Fuel being used during event; and
  - (F) Total NO<sub>x</sub> and CO emission emitted (lb) during the event.
- ii. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit Nos. 117-0373, 117-0374 and 117-0375]

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

#### *d. Reporting Requirements*

- i. The Permittee shall notify the commissioner in writing of any malfunction of the stationary gas turbines, the air pollution control equipment or the continuous monitoring system that causes an exceedance of any of the limits in this permit. The Permittee shall submit such notification within ten days of the malfunction. The notification shall include the following:  
[Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (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.

## **11. Opacity**

#### *a. Limitation or Restriction*

Opacity shall not exceed 10% during any 6 minute block average as measured by 40 CFR Part 60, Appendix A, Reference Method 9.  
[Permit Nos. 117-0373, 117-0374, 117-0375 and RCSA §22a-174-18(b)]

#### *b. Monitoring Requirements*

Record keeping specified in Section III.E.11.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of all exceedances of any operating parameter. Such records shall include: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (A) The date and time of the exceedance;
  - (B) A detailed description of the exceedance; and
  - (C) The duration of the exceedance.
- ii. The Permittee shall make and keep records of the dates, times, and places of visible emissions observations, persons performing the observations, test methods used, the operating conditions at the time of observation, and the results of such observation.  
[RCSA §22a-174-33(j)(l)(K)(ii)]

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#### *d. Reporting Requirements*

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

## **12. Operation and Maintenance**

#### *a. Limitation or Restriction*

- i. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications or good engineering practices. The Permittee shall operate and maintain these stationary combustion turbines, 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, and malfunction. [Permit Nos. 117-0373, 117-0374, 117-0375, and 40 CFR §60.4333(a)]
- ii. The Permittee shall perform inspections of the SCR as recommended by the manufacturer or good engineering practices. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- iii. The Permittee shall perform inspections of the oxidation catalyst as recommended by the manufacturer or good engineering practices. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- iv. The Permittee shall properly operate the control equipment at all times that this equipment is in operation and emitting air pollutants. [Permit Nos. 117-0373, 117-0374 and 117-0375]

#### *b. Monitoring Requirements*

Record keeping specified in Section III.E.12.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall keep records of the inspection and maintenance of the SCR. The records shall include the name of the inspector, the date, the results or actions and the date the catalyst is replaced. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- ii. The Permittee shall keep records of the inspection and maintenance of the oxidation catalyst. The records shall include the name of the inspector, the date, the results or actions and the date the catalyst is replaced. [Permit Nos. 117-0373, 117-0374 and 117-0375]
- iii. The Permittee shall keep records when the turbines are changed for routine maintenance to include the following: [Permit Nos. 117-0373, 117-0374 and 117-0375]
  - (A) The date the turbine was changed;
  - (B) The reason for the change;
  - (C) Documentation that the replacement turbine is the same make and model number; and

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- (D) Documentation that the replacement turbine does not result in an increase in any air pollutant emissions.

#### *d. Reporting Requirements*

- i. The Permittee shall notify the commissioner in writing of any exceedance of an emissions limitation or operating parameter, 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:
  - 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.

#### **F. EU-33 (Cummins QSK50-G4-NR2 Black Start Generator)**

**NSPS Designation: Emergency, Construction/Ordered Date: 1/10/11, Model Year of Engine: 2007, Displacement: < 30 L/cylinder, Maximum Rating: 2,220 Bhp or > 560 kW**

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

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

- i. The Permittee shall not allow the operation of the emergency engine to exceed 300 hours during any 12 month rolling aggregate. [RCSA §22a-174-3b(e)(2)(C)]
- ii. The Permittee shall operate the emergency stationary ICE according to the requirements in 40 CFR §§60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 CFR Part 60 Subpart IIII, any operation other than emergency operation and maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR §§60.4211(f)(1) through (3), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR §§60.4211(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR Part 60 Subpart IIII and shall meet all requirements for non-emergency engines. [40 CFR §60.4211(f)]
- iii. There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR §60.4211(f)(1)]
- iv. The Permittee may operate the emergency stationary ICE for the purpose specified in 40 CFR §60.4211(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR §60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR §60.4211(f)(2). [40 CFR §60.4211(f)(2)]
- v. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

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[40 CFR §60.4211(f)(2)(i)]

- vi. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR §60.4211(f)(2). Except as provided in 40 CFR §60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR §60.4211(f)(3)]
  - (A) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:  
[40 CFR §60.4211(f)(3)(i)(A-E)]
    - (1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
    - (2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
    - (3) The dispatch follows reliability, emergency operation or similar protocols that follow specific North American Electric Reliability Corporation (NERC), regional, state, public utility commission or local standards or guidelines.
    - (4) The power is provided only to the facility itself or to support the local transmission and distribution system.
    - (5) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the Permittee.

#### *b. Monitoring Requirements*

The Permittee shall install a non-resettable hour meter prior to startup of the engine.  
[40 CFR §60.4209(a)]

#### *c. Record Keeping Requirements*

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

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

- ii. The Permittee of an emergency engine shall make and keep records of the hours of operation for each month and each 12 month rolling aggregate. [RCSA §22a-174-3b(e)(4)]

#### *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. Fuel Sulfur Content**

#### *a. Limitation or Restriction*

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

#### *b. Monitoring Requirements*

Record keeping specified in Section III.F.2.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of the information necessary for the commissioner to determine compliance with the requirements of RCSA §22a-174-3b(e)(2). Information sufficient to make such determinations may include the information specified in RCSA §22a-174-3b(e)(4). All records made to determine compliance with the requirements of RCSA §22a-174-3b(e)(3) shall be: [RCSA §22a-174-3b(e)(3)]

(A) Made available to the commissioner to inspect and copy upon request; and

(B) Maintained for five years from the date such record is created.

- ii. The Permittee shall make and keep records of: a fuel certification for a delivery of nongaseous fuel from a bulk petroleum provider or a sales receipt for the sale of motor vehicle diesel fuel from a retail location or 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. [RCSA §22a-174-3b(h)]

#### *d. Reporting Requirements*

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

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

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

The Permittee 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 Permittee is no longer prohibited from operating the engine for routine, scheduled testing or maintenance for the remainder of that day. The Permittee may rely on an ozone forecast of “moderate” or lower obtained after 3 p.m. on the preceding day. Subsequent changes to the ozone forecast after 3 p.m. that forecast ozone levels of “moderate to unhealthy for sensitive groups” or greater shall not obligate the Permittee to refrain from operation of the emergency engine at the facility on the following day. The commissioner may exempt, by permit or order, the Permittee from RCSA §22a-174-22e(d) if such emergency engine is unattended and the testing is automated and cannot be modified from a remote location. [RCSA §22a-174-22e(d)(14)]

##### *b. Monitoring Requirements*

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

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

- i. The Permittee shall retain all records and reports produced pursuant RCSA §22a-174-22e for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. Such records and reports shall be retained at the premises where the emission unit is located, unless the commissioner approves in writing the use of another location in Connecticut. [RCSA §22a-174-22e(j)(1)]
- ii. The Permittee shall make and keep the following records: [RCSA §22a-174-22e(j)(2)]
  - (A) The date and work performed for repairs, replacement of parts and other maintenance; [RCSA §22a-174-22e(j)(2)(B)]
  - (B) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and [RCSA §22a-174-22e(j)(2)(F)]
  - (C) Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(G)]

##### *d. Reporting Requirements*

The Permittee shall submit additional information in writing, at the commissioner’s request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

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#### 4. Non Methane Hydro Carbon (NMHC) + NO<sub>x</sub>

*a. Limitation or Restriction*

The Permittee shall not exceed the following emission limit: 6.4 g/kW-hr  
[40 CFR §60.4202(a)(2), 40 CFR §60.4205(b), and 40 CFR §89.112(a), Table 1]

*b. Monitoring Requirements*

The Permittee shall demonstrate compliance with the NMHC + NO<sub>x</sub> emission limit using manufacturer's emission data. [40 CFR §60.4202(a)]

*c. Record Keeping Requirements*

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.F.4.a of this Title V permit. [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)]

#### 5. CO

*a. Limitation or Restriction*

The Permittee shall not exceed the following emission limit: 3.5 g/kW-hr  
[40 CFR §60.4202(a)(2), 40 CFR §60.4205(b), and 40 CFR §89.112(a), Table 1]

*b. Monitoring Requirements*

The Permittee shall demonstrate compliance with the CO emission limit using manufacturer's emission data. [40 CFR §60.4202(a)]

*c. Record Keeping Requirements*

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.F.5.a of this Title V permit. [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)]



### Section III: Applicable Requirements and Compliance Demonstration

#### 6. PM

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

- i. The Permittee shall not exceed the following emission limit: 0.10 lb/MMBtu [RCSA §22a-174-18(e)(3)(B)]
- ii. The Permittee shall not exceed the following emission limit: 0.20 g/kW-hr [40 CFR §60.4202(a)(2), 40 CFR §60.4205(b), and 40 CFR §89.112(a), Table 1]

##### *b. Monitoring Requirements*

Record keeping specified in Section III.F.6.c. of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

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

The Permittee shall make and keep records of engine maintenance to verify that the engine is being properly maintained. [RCSA §22a-174-3b(e)(3)]

##### *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. Opacity

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

- i. The Permittee shall not exceed the following visible emissions limits: [RCSA §§22a-174-18(b)(1)(A) and (B)]
  - (A) Twenty percent (20%) opacity during any six-minute block average as measured by 40 CFR Part 60, Appendix A, Reference Method 9; or
  - (B) Forty percent (40%) opacity as measured by 40 CFR Part 60, Appendix A, Reference Method 9, reduced to a one-minute block average.

##### *b. Monitoring Requirements*

Record keeping specified in Section III.F.7.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 records sufficient to determine compliance with the limitation or restriction in Section III.F.7.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

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#### *d. Reporting Requirements*

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

### **8. Operation and Maintenance**

#### *a. Limitation or Restriction*

- i. The Permittee shall: [RCSA §22a-174-3b(e)(1) and 40 CFR §60.4211(a)]
  - (A) Operate and maintain the stationary CI internal combustion engine 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 applicable requirements of 40 CFR Parts 89, 94 and/or 1068.
- ii. The Permittee shall comply with the applicable General Provisions requirements according to 40 CFR Part 60 Subpart III, Table 8. [40 CFR §60.4218 and 40 CFR Part 60 Subpart III, Table 8]

#### *b. Monitoring Requirements*

- i. The Permittee shall operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR §§60.4204 and 60.4205 over the entire life of the engine. [40 CFR §60.4206]
- ii. If the Permittee does not install, configure, operate, and maintain the engine according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall demonstrate compliance as follows: [40 CFR §60.4211(g)(3) and 40 CFR §60.4212]
  - (A) The Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within one year of startup, or within one year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer. The Permittee shall conduct subsequent performance testing every 8,760 hours of engine operation or three years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

#### *c. Record Keeping Requirements*

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.F.8.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

### Section III: Applicable Requirements and Compliance Demonstration

*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)]

#### G. FEDERAL ACID RAIN PERMIT REQUIREMENTS

##### 1. SO<sub>2</sub> Allowance Allocations and NO<sub>x</sub> Requirements for Each Affected Unit

*a. EU- 1 (Main Steam Generator)*

		2020	2021	2022	2023	2024
EU-1 (Unit: NHB1)	SO <sub>2</sub> Allowances under Tables 2, 3, or 4 of 40 CFR Part 73	13,092	13,092	13,092	13,092	13,092
	NO <sub>x</sub> Limit	Not an Affected Unit under 40 CFR Part 76				

*b. GEU-1 (3 Combustion Turbines)*

		2020	2021	2022	2023	2024
GEU-1 (Units: NHHS2, NHHS3 and NHHS4)	SO <sub>2</sub> Allowances under Tables 2, 3, or 4 of 40 CFR Part 73	0	0	0	0	0
	NO <sub>x</sub> Limit	Not an Affected Unit under 40 CFR Part 76				

##### 2. Phase II Acid Rain Permit Application

The attached Phase II Acid Rain Permit Application is hereby incorporated by reference into this Title V permit. If this Title V permit is in conflict with or inconsistent with the Phase II Acid Rain Permit Application, the Title V permit requirements, including any applicable requirement under 40 CFR Parts 72 through 78, inclusive, shall supersede the Phase II Acid Rain Permit Application and the Permittee shall be governed by and adhere to this Title V permit and any applicable requirement under 40 CFR Parts 72 through 78, inclusive.

### Section III: Applicable Requirements and Compliance Demonstration

#### H. 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.

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

- 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.
- 19. Ambient Air Quality:** The Permittee shall not cause or contribute to a violation of an ambient air quality standard as set forth in RCSA §22a-174-24(b).
- 20. Open Burning:** The Permittee is prohibited from conducting open burning, except as may be allowed by CGS §22a-174(f).
- 21. Asbestos:** Should the premises, as defined in 40 CFR §61.145, become subject to the national emission standard for asbestos regulations in 40 CFR Part 61 Subpart M when conducting any renovation or demolition at this premises, then the Permittee shall submit proper notification as described in 40 CFR §61.145(b) and shall comply with all other applicable requirements of 40 CFR Part 61 Subpart M.
- 22. Emission Fees:** The Permittee shall pay an emission fee as set forth in RCSA §22a-174-26(d).

**Section IV: Compliance Schedule**

**THERE IS NO COMPLIANCE SCHEDULE**

## Section V: State Enforceable Terms and Conditions

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

### SECTION V: 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.

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

- F.** Hazardous Air Pollutants (HAPs): The Permittee shall operate in compliance with the regulations for the control of HAPs as set forth in RCSA §22a-174-29.
- G.** The Permittee shall comply with the requirements for Control of Carbon Dioxide Emissions as set forth in RCSA §22a-174-31.



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

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

### **SECTION VI: 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: Office of the Director; Engineering & Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

Any submittal to the Administrator of the Environmental Protection Agency shall be in a computer-readable format and addressed to: U.S. EPA New England, 5 Post Office Square, Suite 100 (Mailcode: 04-2), Boston, Massachusetts 02109, Attn: Air 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:

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

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.

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

### **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.

## Section VI: Title V Requirements

### 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.

## Section VI: Title V Requirements

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

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

### **N. PERMIT AVAILABILITY**

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

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

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

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

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

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

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

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

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

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

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

## Section VI: Title V Requirements

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

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

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

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

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

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

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

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

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

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

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.