



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>	<i>098-0029-TV</i>
<b>Client/Sequence/Town/Premises Numbers</b>	<b>1138/1/98/15</b>
<b>Date Issued</b>	May 20, 2019
<b>Expiration Date</b>	May 20, 2024

**Corporation:**

*The University of Connecticut – Storrs Campus*

**Premises Location:**

*25 LeDoyt Road, Storrs, CT 06269-3252*

**Name of Responsible Official and Title:**

*Susan Herbst, President (until July 1, 2019)*

*Thomas C. Katsouleas, President (on and after July 1, 2019)*

All the following attached pages, 2 through 106, are hereby incorporated by reference into this Title V permit.

/s/Tracy Babbidge  
Betsey C. Wingfield  
Deputy Commissioner

5/20/2019  
Date

## TABLE OF CONTENTS

	PAGE
<b>List of Abbreviations/Acronyms</b> .....	5
<b>Section I. Premises Information/Description</b>	
A. Premises Information .....	7
B. Premises Description .....	7
<b>Section II. Emissions Units Information</b>	
A. Emissions Units Description - Table II.A.....	9
B. Grouped Emissions Units Description - Table II.B .....	22
C. Standard Operating Scenario Identification .....	24
<b>Section III. Applicable Requirements and Compliance Demonstration</b>	
A. Grouped Emissions Unit 1 .....	25
B. Grouped Emissions Unit 2 .....	30
C. Grouped Emissions Unit 3 .....	35
D. Grouped Emissions Unit 5 .....	41
E. Grouped Emissions Unit 7 .....	47
F. Grouped Emissions Unit 8 .....	56
G. Grouped Emissions Unit 9 .....	57
H. Grouped Emissions Unit 10 .....	59
I. Grouped Emissions Unit 11 .....	65
J. Grouped Emissions Unit 13 .....	68
K. Emissions Unit 62 .....	72
L. Emissions Unit 549 .....	74
M. Emissions Unit 558 .....	76
N. Emissions Unit 569 .....	84
O. Emissions Unit 551 .....	87
P. Grouped Emissions Unit 14 .....	92
Q. Premises-Wide General Requirements.....	95
<b>Section IV. Compliance Schedule - Table IV</b> .....	97
<b>Section V. State Enforceable Terms and Conditions</b> .....	98
<b>Section VI. Title V Requirements</b>	
A. Submittals to the Commissioner & Administrator .....	100
B. Certifications [RCSA §22a-174-33(b)].....	100
C. Signatory Responsibility [RCSA §22a-174-2a(a)] .....	100
D. Additional Information [RCSA §§22a-174-33(j)(1)(X), -33(h)(2)].....	101
E. Monitoring Reports [RCSA §22a-174-33(o)(1)] .....	101
F. Premises Records [RCSA §22a-174-33(o)(2)] .....	102
G. Progress Reports [RCSA §22a-174-33(q)(1)].....	102
H. Compliance Certifications [RCSA §22a-174-33(q)(2)].....	103
I. Permit Deviation Notifications [RCSA §22a-174-33(p)] .....	103
J. Permit Renewal [RCSA §22a-174-33(j)(1)(B)].....	103
K. Operate in Compliance [RCSA §22a-174-33(j)(1)(C)] .....	103
L. Compliance with Permit [RCSA §22a-174-33(j)(1)(G)] .....	103
M. Inspection to Determine Compliance [RCSA §22a-174-33(j)(1)(M)].....	104

**TABLE OF CONTENTS, continued**

	<b>PAGE</b>
N. Permit Availability.....	104
O. Severability Clause [RCSA §22a-174-33(j)(1)(R)] .....	104
P. Need to Halt or Reduce Activity [RCSA §22a-174-33(j)(1)(T)] .....	104
Q. Permit Requirements [RCSA §22a-174-33(j)(1)(V)] .....	104
R. Property Rights [RCSA §22a-174-33(j)(1)(W)].....	104
S. Alternative Operating Scenario Records [RCSA §22a-174-33(o)(3)].....	104
T. Operational Flexibility and Off-Permit Changes [RCSA §22a-174-33(r)(2)] .....	105
U. Information for Notification [RCSA §22a-174-33(r)(2)(A)].....	105
V. Transfers [RCSA §22a-174-2a(g)] .....	105
W. Revocation [RCSA §22a-174-2a(h)] .....	105
X. Reopening for Cause [RCSA §22a-174-33(s)] .....	106
Y. Credible Evidence.....	106

## **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>
ccf	One hundred cubic feet
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CGS	Connecticut General Statutes
CO	Carbon Monoxide
CP/OP	Construction Permit/Operating Permit
DEEP	Department of Energy and Environmental Protection
EDR	Emergency Demand Response
EO&M	Emergency, Operational & Maintenance
EPA	Environmental Protection Agency
EU	Emissions Unit
ft <sup>3</sup> /hr	Feet cube per hour
gm/bk hp-hr	Grams per brake horsepower hour
GEU	Grouped Emissions Unit
GHG	Green House Gases
HAP	Hazardous Air Pollutant
HC	Hydrocarbon
hp	Horse power
hr	Hour
HVAC	Heating, Ventilation and Air Conditioning
kW	Kilowatt
kWe	Electrical power output in Kilowatts
lb	Pound
LPG	Liquefied Petroleum Gas
MMBtu	Million British Thermal Units
MMcf	Million Cubic Feet
MMft <sup>3</sup>	Million cubic feet
MW	Megawatts
NG	Natural Gas
NO <sub>x</sub>	Nitrogen Oxides
NSR	New Source Review
O <sub>2</sub>	Oxygen
P	Permit
Pb	Lead
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter less than 10 microns
PM <sub>2.5</sub>	Particulate Matter less than 2.5 microns
ppmvd	Parts per million, volumetric basis dry
R	Registration
RCSA	Regulations of Connecticut State Agencies
RICE	Reciprocating Internal Combustion Engine

## LIST OF ABBREVIATIONS/ACRONYMS, continued

<i>Abbreviation/Acronym</i>	<i>Description</i>
scf	Standard cubic feet
SI	Spark Ignition
SIC	Standard Industrial Classification Code
SO <sub>2</sub>	Sulfur Dioxide
SO <sub>x</sub>	Sulfur Oxides
SOS	Standard Operating Scenario
TPY	Tons per year
TSP	Total Suspended Particulate
ULSD	Ultra Low Sulfur Diesel
VOC	Volatile Organic Compound
WPCF	Water Pollution Control Facility

## Section I: Premises Information/Description

### A. PREMISES INFORMATION

Nature of Business: The University of Connecticut  
Primary SIC: 8221

Facility Mailing Address: 25 LeDoyt Road, Unit 3055, Storrs, CT 06269-3252  
Telephone Number: (860) 486-2000

### B. PREMISES DESCRIPTION

The University of Connecticut (UCONN), Storrs Campus is an institution of higher education offering both graduate and undergraduate courses of study. The campus includes laboratories, classrooms, administrative offices, and residential buildings as well as other buildings and areas associated with the operation of a university such as a wastewater treatment facility, central utility plant, cogeneration facility, infirmary, various places of worship, library, and sports facilities.

UCONN is a Title V source located in a serious ozone non-attainment area as defined in RCSA section 22a-174-1.

UCONN is a **major source for NO<sub>x</sub>, VOC, CO, SO<sub>x</sub>, PM, PM<sub>10</sub>, and GHG**. Because particle size data and specific PM<sub>2.5</sub> emission factors are not available for many of UCONN's emissions sources, it is conservatively assumed that all PM emissions are in the form of PM<sub>2.5</sub> and that UCONN is, therefore, also a major source of **PM<sub>2.5</sub>**.

Permit Nos. 098-0056, 098-0061 and 098-0062 were originally issued on September 13, 2004 and have a Premises Wide Emission Cap for HAPs limiting annual HAP emissions for the premises to less than 10 TPY of a single HAP and less than 25 TPY of any combination of HAPs. As such UCONN is considered an **area source for HAPs**.

The air emissions units located at the premises with source specific applicable requirements are as follows:

#### Central Utility Plant:

- Four registered boilers operating under Consent Order No. 8311, Modification 1. This order restricts the maximum operating capacity of the boilers. These boilers are subject to 40 CFR Part 63 Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (EU-11, EU-12, EU-13, EU-17).
- Boiler No. 9 operating under Permit No. 098-0026 and subject to 40 CFR Part 60 Subpart Db – Standards of Performance for Industrial, Commercial, Institutional Steam Generating Units and 40 CFR Part 63 Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers for Area Sources (EU-558).
- Two 1,250 kW diesel fired emergency engines subject to the requirements of 40 CFR Part 63 Subpart ZZZZ – National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (EU-565, EU-566).
- One 1,500 kW emergency diesel engine which provides black-start emergency power to the Cogeneration Facility. This black-start emergency engine is subject to the requirements of 40 CFR Part 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (EU-598).
- Four TECOCHILL CH-400 units, each driven by two natural gas fired non-emergency engines. The engines are subject to 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (EU-1436, EU-1437, EU-1438, EU-1439).

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

The South Campus Chiller Plant:

- One natural gas fired chiller non-emergency engine and one diesel fired emergency engine. The engines are subject to 40 CFR Part 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (EU-569, EU-579).

The Cogeneration Facility:

- Three combustion turbines each with a corresponding duct burner. The combustion turbines are subject to 40 CFR Part 60 Subpart GG – Standards of Performance for Stationary Gas Turbines; while the duct burners are subject to 40 CFR Part 60 Subpart Dc – Standards of Performance for Small Industrial, Commercial, Institutional Steam Generating Units (EU-600, EU-601, EU-602).

Water Pollution Control Facility:

- Oil fired boiler subject to 40 CFR Part 63 Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers Area Sources (EU-549).

Additionally, UCONN operates several emergency engines under NSR permits or RCSA section 22a-174-3b. The emergency engines may be subject to one of the following federal regulations:

- 40 CFR Part 63 Subpart ZZZZ;
- 40 CFR Part 60 Subpart IIII; or
- 40 CFR Part 60 Subpart JJJJ.

At the Motor Pool, gasoline and diesel fuel are stored and dispensed for use in campus vehicles. The fuel distribution operations are subject to RCSA sections 22a-174-20, 22a-174-30a and 40 CFR Part 63 Subpart CCCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities (EU-551).

UCONN also operates a reclaimed water facility, a “less than 90 day” hazardous waste storage facility, HVAC cooling towers and a woodworking shop.



## 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, Orders, Registrations, or Regulations into this Title V permit.

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit/ Grouped Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
EU-1	3.88 MMBtu/hr (350 kWe/568 hp) Kohler Model 350 ROZD emergency engine  Construction date: 1992  <b>Beach Building</b>	N/A	CP/OP 098-0011  RCSA §22a-174-22e  40 CFR Part 63 Subpart ZZZZ
EU-2	6.65 MMBtu/hr (600 kWe/947 hp) Kohler Model 600 ROZD 81 emergency engine  Construction date: 1992  <b>School of Psychology</b>	N/A	CP/OP 098-0012  RCSA §22a-174-22e  40 CFR Part 63 Subpart ZZZZ
EU-5	1.55 MMBtu/hr (150 kWe/250 hp) Kohler Model 150 ROZD emergency engine  Construction date: 1993  <b>Biobehavioral Building No. 4 Annex</b>	N/A	CP/OP 098-0015  40 CFR Part 63 Subpart ZZZZ
EU-8	2.40 MMBtu/hr (200 kWe/335 hp*) Cummins Model NT-855GS2 emergency engine  Construction date: 1990  <b>Gampel Pavilion</b>	N/A	CP/OP 098-0018  40 CFR Part 63 Subpart ZZZZ
EU-9	4.6 MMBtu/hr (400 kWe/643 hp) Kohler Model 400 ROZD 71 emergency engine  Construction date: 1993  <b>Fenton River Well Field</b>	N/A	CP/OP 098-0019  RCSA §22a-174-22e  40 CFR Part 63 Subpart ZZZZ
EU-11	62.52 MMBtu/hr on Natural Gas 66.18 MMBtu/hr on No.2 Fuel Oil Bigelow Boiler No. 1 - Serial No. 12098 Construction date: 1960  <b>Central Utility Plant</b>	N/A	R 098-0014-R RCSA §22a-174-22e  CP/OP 098-0026 Collateral Conditions  Consent Order

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit/ Grouped Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
			No. 8311 Mod. 1  40 CFR Part 63 Subpart JJJJJ
EU-12	.74.09 MMBtu/hr on Natural Gas .66.93 MMBtu/hr on No. 2 Fuel Oil Bigelow Boiler No. 2 - Serial No. 12274  Construction date: 1963  <b>Central Utility Plant</b>	N/A	R 098-0015-R RCSA §22a-174-22e  CP/OP 098-0026 Collateral Conditions  Consent Order No. 8311 Mod 1  40 CFR Part 63 Subpart JJJJJ
EU-13	.78.53 MMBtu/hr on Natural Gas .66.87 MMBtu/hr on No. 2 Fuel Oil Bigelow Boiler No. 3 - Serial No. 12720  Construction date: 1967  <b>Central Utility Plant</b>	N/A	R 098-0016-R RCSA §22a-174-22e  CP/OP 098-0026 Collateral Conditions  Consent Order No. 8311 Mod 1  40 CFR Part 63 Subpart JJJJJ
EU-17	.111.1 MMBtu/hr on Natural Gas .111.1 MMBtu/hr on No. 2 Fuel Oil Bigelow Boiler No. 7 - Serial No. 13001  Construction date: 1971  <b>Central Utility Plant</b>	N/A	R 098-0020-R RCSA §22a-174-22e  CP/OP 098-0026 Collateral Conditions  Consent Order No. 8311 Mod 1  40 CFR Part 63 Subpart JJJJJ
EU-19	.2.50 MMBtu/hr (170 kW <sub>e</sub> /285 hp <sup>*</sup> ) Onan emergency engine  Construction date: pre-1989  <b>Biobehavioral Building No. 4</b>	N/A	40 CFR Part 63 Subpart ZZZZ

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit/ Grouped Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
EU-20	<p>0.60 MMBtu/hr (30 kWe/50 hp*) Onan emergency engine</p> <p>Construction date: 1971</p> <p style="text-align: center;"><b>Ellsworth Hall</b></p>	N/A	40 CFR Part 63 Subpart ZZZZ
EU-23	<p>1.06 MMBtu/hr (100kWe/168 hp) Kohler emergency engine</p> <p>Construction date: pre-1989</p> <p style="text-align: center;"><b>Atwater Laboratory</b></p>	N/A	40 CFR Part 63 Subpart ZZZZ
EU-27	<p>0.18 MMBtu/hr (15 kWe/25 hp*) Onan emergency engine</p> <p>Construction date: 1955</p> <p style="text-align: center;"><b>Hollister Hall</b></p>	N/A	40 CFR Part 63 Subpart ZZZZ
EU-30	<p>1.81 MMBtu/hr (100 kWe/220 hp) Cummins emergency engine</p> <p>Construction date: 1995</p> <p style="text-align: center;"><b>Facilities Management</b></p>	N/A	40 CFR Part 63 Subpart ZZZZ
EU-42	<p>0.18 MMBtu/hr (15 kWe/25 hp*) Onan emergency engine</p> <p>Construction date: 1970</p> <p style="text-align: center;"><b>New Fine Arts Building</b></p>	N/A	40 CFR Part 63 Subpart ZZZZ
EU-43	<p>0.53 MMBtu/hr (45 kWe/75 hp*) Onan emergency engine</p> <p>Construction date: 1973</p> <p style="text-align: center;"><b>WHUS Radio Building</b></p>	N/A	40 CFR Part 63 Subpart ZZZZ
EU-48	<p>1.2 MMBtu/hr (80 kWe/150 hp) Kohler emergency engine</p> <p>Construction date: 1974</p> <p style="text-align: center;"><b>Whitney Hall</b></p>	N/A	40 CFR Part 63 Subpart ZZZZ

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit/ Grouped Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
EU-54	2.63 MMBtu/hr (230 kWe/370 hp) Kohler 230ROZD emergency engine Serial No. 273354  Construction date: 1991  <b>Commissary Warehouse</b>	N/A	RCSA §22a-174-3b(e)  40 CFR Part 63 Subpart <i>ZZZZ</i>
EU-55	5.38 MMBtu/hr (500 kWe/749 hp) Caterpillar 3412 emergency engine Serial No. 81Z17892  Construction date: 1996  <b>Thomas J. Dodd Research Center</b>	N/A	RCSA §22a-174-3b(e) RCSA §22a-174-22e  40 CFR Part 63 Subpart <i>ZZZZ</i>
EU-56	2.93 MMBtu/hr (250 kWe/419 hp*) Cummins emergency engine  Construction date: 1988  <b>Electric Mobile</b>	N/A	40 CFR Part 63 Subpart <i>ZZZZ</i>
EU-57	2.93 MMBtu/hr (250 kWe/419 hp*) Onan emergency engine  Construction date: 1970  <b>Institute of Materials Science</b>	N/A	40 CFR Part 63 Subpart <i>ZZZZ</i>
EU-59	0.29 MMBtu/hr (25 kWe/66 hp) Kohler emergency engine  Construction date: 1953  <b>Jorgensen Auditorium</b>	N/A	40 CFR Part 63 Subpart <i>ZZZZ</i>
EU-62	6.44 MMBtu/hr (375 kW/629 hp*) Cummins emergency engine  Construction date: 1975  <b>Water High Head Building</b>	N/A	RCSA §22a-174-22e  40 CFR Part 63 Subpart <i>ZZZZ</i>
EU-63	4.7 MMBtu/hr (500 kW/838 hp*) Onan 500 DFFB emergency engine  Construction date: 1995	N/A	CP/OP 098-0054  RCSA §22a-174-22e  40 CFR Part 63 Subpart

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit/ Grouped Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
	<b>Water Pollution Control Facility</b>		<i>ZZZZ</i>
EU-66	0.51 MMBtu/hr (35 kWe/66 hp) Onan emergency engine Serial No. L940562448  Construction date: 1995  <b>WPCF at Eastwood Road</b>	N/A	CP/OP 098-0026 Collateral Conditions  40 CFR Part 63 Subpart <i>ZZZZ</i>
EU-67	0.51 MMBtu/hr (35 kWe/66 hp) Onan emergency engine Serial No. L940562446  Construction date: 1995  <b>WPCF at Mansfield Apartments</b>	N/A	CP/OP 098-0026 Collateral Conditions  40 CFR Part 63 Subpart <i>ZZZZ</i>
EU-68	0.51 MMBtu/hr (35 kWe/66 hp) Onan emergency engine Serial No. L940562447  Construction date: 1995  <b>WPCF at Northwood Apartments</b>	N/A	CP/OP 098-0026 Collateral Conditions  40 CFR Part 63 Subpart <i>ZZZZ</i>
EU-442	6.65 MMBtu/hr Weil-McLain boiler No. 1  Construction date: unknown  <b>Putnam Refectory</b>	N/A	RCSA §22a-174-22e
EU-443	6.65 MMBtu/hr Weil-McLain boiler No. 2  Construction date: unknown  <b>Putnam Refectory</b>	N/A	RCSA §22a-174-22e
EU-549	2.0 MMBtu/hr boiler  Construction date: unknown  <b>Water Pollution Control Facility</b>	N/A	40 CFR Part 63 Subpart JJJJJ
EU-551	Motor Pool Fuel Distribution  Construction date: 1995  <b>Motor Pool</b>	Vapor Recovery	RCSA §22a-174-20 RCSA §22a-174-30a  40 CFR Part 63 Subpart CCCCC

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit/ Grouped Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
EU-558	<p>121.2 MMBtu/hr (NG) &amp; 115.5 MMBtu/hr (oil) Boiler No. 9, English D-Type boiler Model APP-100-250</p> <p>Construction date: 2001</p> <p style="text-align: center;"><b>Central Utility Plant</b></p>	Low NOx burners & Flue Gas Recirculation	<p>CP/OP 098-0026</p> <p>RCSA §22a-174-22e</p> <p>40 CFR Part 60 Subpart Db</p> <p>40 CFR Part 63 Subpart JJJJJ</p>
EU-565	<p>12 MMBtu/hr (1,250 kWe/1,881 hp) Mitsubishi RM-1250 S12R-PTA emergency engine No. 1</p> <p>Construction date: 1997</p> <p style="text-align: center;"><b>Central Utility Plant</b></p>	N/A	<p>RCSA §22a-174-3b(e)</p> <p>RCSA §22a-174-22e</p> <p>40 CFR Part 63 Subpart ZZZZ</p>
EU-566	<p>12 MMBtu/hr (1,250 kWe/1,881 hp) Mitsubishi RM-1250 S12R-PTA emergency engine No. 2</p> <p>Construction date: 1997</p> <p style="text-align: center;"><b>Central Utility Plant</b></p>	N/A	<p>RCSA §22a-174-3b(e)</p> <p>RCSA §22a-174-22e</p> <p>40 CFR Part 63 Subpart ZZZZ</p>
EU-567	<p>1.14 MMBtu/hr (100 kWe/168 hp) Spectrum Detroit Model 100DS emergency engine</p> <p>Construction date: 2001</p> <p style="text-align: center;"><b>North Campus Parking Garage</b></p>	N/A	<p>RCSA §22a-174-3b(e)</p> <p>40 CFR Part 63 Subpart ZZZZ</p>
EU-568	<p>4.05 MMBtu/hr (325 kWe/531 hp) Cummins emergency engine</p> <p>Construction date: 1999</p> <p style="text-align: center;"><b>Ag-Biotech Building</b></p>	N/A	<p>RCSA §22a-174-3b(e)</p> <p>RCSA §22a-174-22e</p> <p>40 CFR Part 63 Subpart ZZZZ</p>
EU-569	<p>3.88 MMBtu/hr (430 hp) Waukesha Model F18GLD chiller non-emergency engine</p> <p>Construction date: 1998</p> <p style="text-align: center;"><b>South Campus Chiller Plant</b></p>	N/A	<p>RCSA §22a-174-22e</p> <p>40 CFR Part 63 Subpart ZZZZ</p>

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit/ Grouped Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
EU-575	0.65 MMBtu/hr (30 kWe/82 hp) Kohler emergency engine  Construction date:1997  <b>Field House</b>	N/A	40 CFR Part 63 Subpart <i>ZZZZ</i>
EU-576	1.47 MMBtu/hr (150 kWe/250 hp) Kohler 150ROZJ emergency fire pump engine  Construction date: 1997  <b>Field House</b>	N/A	RCSA §22a-174-3b(e)  40 CFR Part 63 Subpart <i>ZZZZ</i>
EU-579	5.06 MMBtu/hr (450 kWe/760 hp) Kohler Model 450ROZD emergency engine  Construction date: 1998  <b>South Campus Chiller Plant</b>	N/A	RCSA §22a-174-3b(e) RCSA §22a-174-22e  40 CFR Part 63 Subpart <i>ZZZZ</i>
EU-584	2.19 MMBtu/hr (160 kWe/268 hp*) Caterpillar Model SR4B emergency engine  Construction date: 2002  <b>Alumni Quad</b>	N/A	CP/OP 098-0026 Collateral Conditions  40 CFR Part 63 Subpart <i>ZZZZ</i>
EU-585	1.09 MMBtu/hr (80 kWe/150 hp) Kohler Model 80 RZG emergency engine  Construction date: 2002  <b>Buckley Hall</b>	N/A	CP/OP 098-0026 Collateral Conditions  40 CFR Part 63 Subpart <i>ZZZZ</i>
EU-586	0.90 MMBtu/hr (60 kWe/105 hp) Kohler Model 60 RZG emergency engine  Construction date: 2002  <b>Shippee Hall</b>	N/A	CP/OP 098-0026 Collateral Conditions  40 CFR Part 63 Subpart <i>ZZZZ</i>
EU-587	0.91 MMBtu/hr (55 kWe/92 hp*) Onan emergency engine  Construction date: 2002  <b>McMahon Hall</b>	N/A	CP/OP 098-0026 Collateral Conditions  40 CFR Part 63 Subpart <i>ZZZZ</i>

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit/ Grouped Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
EU-588	<p>1.6 MMBtu/hr (100 kWe/173 hp) Caterpillar emergency engine</p> <p style="text-align: center;">Construction date: 2001</p> <p style="text-align: center;"><b>Hilltop (Capstone) Apartments</b></p>	Catalytic Converter	<p style="text-align: center;">CP/OP 098-0026 Collateral Conditions</p> <p style="text-align: center;">40 CFR Part 63 Subpart <i>ZZZZ</i></p>
EU-591	<p>0.30 MMBtu/hr (17 kWe/37 hp) Kohler Emergency engine</p> <p style="text-align: center;">Construction date: 2002</p> <p style="text-align: center;"><b>Hilltop Dorms</b></p>	N/A	<p style="text-align: center;">CP/OP 098-0026 Collateral Conditions</p> <p style="text-align: center;">40 CFR Part 63 Subpart <i>ZZZZ</i></p>
EU-598	<p>14.88 MMBtu/hr (1,500 kWe/2,172 hp) Caterpillar - Black start emergency engine</p> <p style="text-align: center;">Construction date: 2005</p> <p style="text-align: center;"><b>Central Utility Plant</b></p>	N/A	<p style="text-align: center;">RCSA §22a-174-3b(e) RCSA §22a-174-22e</p> <p style="text-align: center;">40 CFR Part 63 Subpart <i>ZZZZ</i></p>
EU-599	<p>0.49 MMBtu/hr (35 kWe/57 hp) Cummins emergency engine</p> <p style="text-align: center;">Construction date: 2004</p> <p style="text-align: center;"><b>Poultry Facility</b></p>	N/A	<p style="text-align: center;">P 098-0056, 098-0061 and 098-0062 Collateral Conditions</p> <p style="text-align: center;">40 CFR Part 63 Subpart <i>ZZZZ</i></p>
EU-600	<p>7 MW Solar Taurus Model 70 Combustion Turbine with a 60 MMBtu/hr duct burner</p> <p style="text-align: center;">Construction date: 2004</p> <p style="text-align: center;"><b>Cogeneration Facility</b></p>	<p style="text-align: center;">Selective Catalytic Reduction, Oxidation Catalyst</p> <p style="text-align: center;">Turbine Only: Dry- Low NOx Combustor</p>	<p style="text-align: center;">P 098-0056 RCSA §22a-174-22e</p> <p style="text-align: center;">40 CFR Part 60 Subparts Dc (duct burner) and GG (turbine)</p>
EU-601	<p>7 MW Solar Taurus Model 70 Combustion Turbine with a 60 MMBtu/hr duct burner</p> <p style="text-align: center;">Construction date: 2004</p> <p style="text-align: center;"><b>Cogeneration Facility</b></p>	<p style="text-align: center;">Selective Catalytic Reduction, Oxidation Catalyst</p> <p style="text-align: center;">Turbine Only: Dry- Low NOx Combustor</p>	<p style="text-align: center;">P 098-0061 RCSA §22a-174-22e 40 CFR Part 60 Subparts Dc (duct burner) and GG (turbine)</p>
EU-602	<p>7 MW Solar Taurus Model 70 Combustion Turbine with a 60 MMBtu/hr duct burner</p> <p style="text-align: center;">Construction date: 2004</p>	<p style="text-align: center;">Selective Catalytic Reduction, Oxidation Catalyst</p> <p style="text-align: center;">Turbine Only: Dry-</p>	<p style="text-align: center;">P 098-0062 RCSA §22a-174-22e</p> <p style="text-align: center;">40 CFR Part 60</p>



## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit/ Grouped Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
	<b>Cogeneration Facility</b>	Low NOx Combustor	Subparts Dc (duct burner) and GG (turbine)
EU-606	0.79 MMBtu/hr (60 kWe/115 hp) Cummins emergency engine  Construction date: 2006  <b>Burton Football Complex</b>	N/A	P 098-0056, 098-0061 and 098-0062 Collateral Conditions  40 CFR Part 63 Subpart ZZZZ
EU-607	2.88 MMBtu/hr (250 kW/383 hp) Cummins emergency engine  Construction date: 2003  <b>Towers Dorms</b>	N/A	RCSA §22a-174-3b(e)  40 CFR Part 63 Subpart ZZZZ
EU-608	0.28 MMBtu/hr (30 kWe/45 hp) Perkins emergency fire pump engine  Construction date: 1998  <b>Ice Rink</b>	N/A	40 CFR Part 63 Subpart ZZZZ
EU-609	0.52 MMBtu/hr (30 kWe/82 hp) Kohler emergency engine  Construction date: 2000  <b>Horse Barn Lift Station</b>	N/A	40 CFR Part 63 Subpart ZZZZ
GEU-8 Subgroup 1	Nine Laars RHEOS+ Model 1600 and three Laars RHEOS+ Model 2000 boilers or equivalent  <b>Hilltop Apartments</b>	N/A	P 098-0056, 098-0061 and 098-0062 Collateral Conditions
GEU-8 Subgroup 2	All natural gas fired heating equipment  <b>Charter Oak Apartments and Suites, Husky Village, Hilltop Apartments Community Center (2353 Alumni Drive), and Hilltop Apartments Building No. 22 (22 Husky Circle)</b>	N/A	P 098-0056, 098-0061 and 098-0062 Collateral Conditions
GEU-8 Subgroup 3	All natural gas fired heating equipment  <b>Hilltop Suites</b>	N/A	P 098-0056, 098-0061 and 098-0062 Collateral Conditions

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit/ Grouped Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
GEU-8 Subgroup 4	All natural gas fired heating equipment  <b>Next Generation Connecticut Hall</b>	N/A	P 098-0026 Collateral Conditions
GEU-8 Subgroup 5	All natural gas fired heating equipment  <b>Northwood Apartments</b>	N/A	P 098-0026 Collateral Conditions
GEU-8 Subgroup 6	All natural gas fired heating equipment  <b>Innovation Partnership Building</b>	N/A	P 098-0026 Collateral Conditions
EU-1282	1.95 MMBtu/hr (175 kWe/274 hp) Caterpillar CD174-2 emergency engine  Construction date: 2011  <b>Police/Fire Complex</b>	N/A	RCSA §22a-174-3b(e)  40 CFR Part 60 Subpart III
EU-1283	5.85 MMBtu/hr (600 kWe/900 hp) Caterpillar C18 ATAAC emergency engine  Construction date: 2011  <b>Willimantic Well Field</b>	N/A	RCSA §22a-174-3b(e) RCSA §22a-174-22e  40 CFR Part 60 Subpart III
EU-1284	2.12 MMBtu/hr (150 kWe/224 hp) Olympian Emergency engine  Construction date: 2012  <b>Floriculture Building</b>	N/A	P 098-0026 Collateral Conditions  40 CFR Part 60 Subpart JJJ
EU-1285	0.29 MMBtu/hr (20 kW/34 hp*) Generac Emergency engine  Construction date: 2012  <b>President's Residence</b>	N/A	P 098-0026 Collateral Condition  40 CFR Part 60 Subpart JJJ
EU-1286	4.53 MMBtu/hr (500 kWe/752 hp) MTU Onsite Energy emergency engine  Construction date: 2012  <b>Reclaimed Water Facility Building</b>	N/A	RCSA §22a-174-3b(e) RCSA §22a-174-22e  40 CFR Part 60 Subpart III

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit/ Grouped Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
EU-1314	1.95 MMBtu/hr (150 kWe/225 hp) Cummins Emergency engine  Construction date: 2013  <b>Young Building</b>	N/A	40 CFR Part 60 Subpart JJJ
EU-1315	0.59 MMBtu/hr (40 kWe/64 hp) Cummins 40 GGPB Emergency engine  Construction date: 2014  <b>Basketball Training Facility</b>	N/A	RCSA §22a-174-3b(e)  40 CFR Part 60 Subpart JJJ
EU-1322	1.50 MMBtu/hr (153 kWe/241 hp) Marathon MMG175 Emergency engine  Construction date: 2014  <b>Student Health Services</b>	N/A	RCSA §22a-174-3b(e)  40 CFR Part 60 Subpart III
EU-1323	0.72 MMBtu/hr (65 kWe/99 hp) Ingersoll-Rand S60 Emergency engine  Construction date: 2015  <b>WHUS Radio Tower</b>	N/A	CP/OP 098-0026 Collateral Condition  40 CFR Part 63 Subpart ZZZZ
EU-1324	4.82 MMBtu/hr (500 kWe/762 hp) Taylor TMC500 Emergency engine  Construction date: 2015  <b>Mobile Generator</b>	N/A	RCSA §22a-174-3b(e) RCSA §22a-174-22e  40 CFR Part 60 Subpart III
EU-1325	1.12 MMBtu/hr (100 kWe/149 hp) Generac SG100 Emergency engine  Construction date: 2017  <b>Main Accumulation Area</b>	N/A	RCSA §22a-174-3b(e)  40 CFR Part 60 Subpart JJJ
EU-1330	4.82 MMBtu/hr (400 kWe/636 hp) Generac MG400 Emergency engine  Construction date: 2016  <b>Putnam Refectory</b>	N/A	CP/OP 098-0026 Collateral Conditions  RCSA §22a-174-22e  40 CFR Part 60 Subpart JJJ

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit/ Grouped Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
EU-1331	4.82 MMBtu/hr (400 kWe/636 hp) Generac MG400 Emergency engine  Construction date: 2016  <b>Putnam Refectory</b>	N/A	CP/OP 098-0026 Collateral Conditions  RCSA §22a-174-22e  40 CFR Part 60 Subpart JJJ
EU-1332	4.82 MMBtu/hr (400 kWe/636 hp) Generac MG400 Emergency engine  Construction date: 2016  <b>Putnam Refectory</b>	N/A	CP/OP 098-0026 Collateral Conditions  RCSA §22a-174-22e  40 CFR Part 60 Subpart JJJ
EU-1347	4.15 MMBtu/hr (450 kWe/755 hp) Cummins 450 DFEJ Emergency engine  Construction date: 2016  <b>Gurleyville Lift Station</b>	N/A	RCSA §22a-174-3b(e) RCSA §22a-174-22e  40 CFR Part 60 Subpart III
EU-1348	4.86 MMBtu/hr (400 kWe/637 hp) Caterpillar G3412C LE Emergency engine  Construction date: 2017  <b>Innovation Partnership Building</b>	N/A	CP/OP 098-0026 Collateral Conditions  RCSA §22a-174-22e  40 CFR Part 60 Subpart JJJ
EU-1407	0.93 MMBtu/hr (60 kWe/98 hp) Generac C60 Natural Gas Emergency engine  Construction date: 2017  <b>Bronwell Building</b>	N/A	RCSA §22a-174-3b(e)  40 CFR Part 60 Subpart JJJ
EU-1435	2.06 MMBtu/hr (150 kWe/251 hp*) Generac QT150 Emergency engine  Construction date: 2018  <b>Kellogg Barn</b>	N/A	CP/OP 098-0026 Collateral Condition  40 CFR Part 60 Subpart JJJ
EU-1436	3.065 MMBtu/hr TECOCHILL CH-400 engine driven chiller powered by two 161 hp TecoDrive 7400LE ULTRA natural gas fired non-emergency engines	Catalytic converter	CP/OP 098-0026 Collateral Condition

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit/ Grouped Emissions Units</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
	Construction date: 2019  <b>Central Utility Plant</b>		40 CFR Part 60 Subpart JJJ
EU-1437	3.065 MMBtu/hr TECOCHILL CH-400 engine driven chiller powered by two 161 hp TecoDrive 7400LE ULTRA natural gas fired non-emergency engines  Construction date: 2019  <b>Central Utility Plant</b>	Catalytic converter	CP/OP 098-0026 Collateral Condition  40 CFR Part 60 Subpart JJJ
EU-1438	3.065 MMBtu/hr TECOCHILL CH-400 engine driven chiller powered by two 161 hp TecoDrive 7400LE ULTRA natural gas fired non-emergency engines  Construction date: 2019  <b>Central Utility Plant</b>	Catalytic converter	CP/OP 098-0026 Collateral Condition  40 CFR Part 60 Subpart JJJ
EU-1439	3.065 MMBtu/hr TECOCHILL CH-400 engine driven chiller powered by two 161 hp TecoDrive 7400LE ULTRA natural gas fired non-emergency engines  Construction date: 2019  <b>Central Utility Plant</b>	Catalytic converter	CP/OP 098-0026 Collateral Condition  40 CFR Part 60 Subpart JJJ

\* Engine rating was estimated since no manufacturer's data was available for this engine.

## Section II: Emissions Units Information

### B. GROUPED EMISSIONS UNITS DESCRIPTION

<b>TABLE II.B: GROUPED EMISSIONS UNITS DESCRIPTION</b>	
<b>Grouped Emissions Units (GEU)</b>	<b>Grouped Emissions Unit Description</b>
<b>GEU-1</b>	<p><b>EU-54, 567, 576, 607, 1282, 1315, 1322, 1325, 1407: Emergency engines</b></p> <ul style="list-style-type: none"> <li>• Operating under RCSA §22a-174-3b(e)</li> <li>• Subject to 40 CFR Part 63 Subpart ZZZZ: 54, 567, 576, 607</li> <li>• Subject to 40 CFR Part 60 Subpart IIII: 1282, 1322</li> <li>• Subject to 40 CFR Part 60 Subpart JJJJ: 1315, 1325, 1407</li> <li>• <i>Not subject to RCSA §22a-174-22e</i></li> </ul>
<b>GEU-2</b>	<p><b>EU-55, 565, 566, 568, 579, 598, 1283, 1286, 1324, 1347: Emergency engines</b></p> <ul style="list-style-type: none"> <li>• Operating under RCSA §22a-174-3b(e)</li> <li>• Subject to RCSA §22a-174-22e</li> <li>• Subject to 40 CFR Part 63 Subpart ZZZZ: 55, 565, 566, 568, 579, 598</li> <li>• Subject to 40 CFR Part 60 Subpart IIII: 1283, 1286, 1324, 1347</li> </ul>
<b>GEU-3</b>	<p><b>EU-11, 12, 13, 17: Registered boilers</b></p> <ul style="list-style-type: none"> <li>• Fuel type: Natural gas and No. 2 fuel oil - collateral condition in CP/OP 098-0026</li> <li>• Subject to RCSA §22a-174-22e</li> <li>• Subject to 40 CFR Part 63 Subpart JJJJJ</li> <li>• Subject to Consent Order No. 8311 – Modification 1</li> </ul>
<b>GEU-5</b>	<p><b>EU-66, 67, 68, 584, 585, 586, 587, 588, 591, 599, 606, 1323: Emergency engines</b></p> <ul style="list-style-type: none"> <li>• Subject to 40 CFR Part 63 Subpart ZZZZ</li> <li>• Limited to 500 hr/yr of operation (collateral conditions in CP/OP 098-0026): 66, 67, 68</li> <li>• Limited to 300 hr/yr of operation (collateral conditions in CP/OP 098-0026): 584, 585, 586, 587, 588, 591, 1323</li> <li>• Limited to 300 hr/yr of operation (collateral conditions in P 098-0056, 0998-0061 and 098-0062): 599, 606</li> <li>• <i>Not subject to RCSA §22a-174-22e</i></li> </ul> <p><b>EU-1284, 1285 and 1435: Emergency engines</b></p> <ul style="list-style-type: none"> <li>• Subject to 40 CFR Part 60 Subpart JJJJ,</li> <li>• Limited to 300 hr/yr of operation (collateral conditions in CP/OP 098-0026)</li> <li>• <i>Not subject to RCSA §22a-174-22e</i></li> </ul> <p><b>EU-1330, 1331, 1332 and 1348: Emergency engines</b></p> <ul style="list-style-type: none"> <li>• Subject to RCSA §22a-174-22e</li> <li>• Subject to 40 CFR Part 60 Subpart JJJJ</li> <li>• Limited to 300 hr/yr of operation (collateral condition in CP/OP 098-0026)</li> </ul>
<b>GEU-7</b>	<p><b>EU-600, 601, 602: Solar Taurus Model 70 Combustion Turbines with Duct Burners</b></p> <ul style="list-style-type: none"> <li>• Operating under NSR Permit Nos. 098-0056, 098-0061 and 098-0062</li> <li>• Subject to RCSA §22a-174-22e</li> <li>• Subject to 40 CFR Part 60 Subparts Dc (Duct burner) and GG (turbine)</li> </ul>
	<p><b>Subgroup 1: Nine Laars RHEOS+ Model 1600 and three Laars RHEOS+ Model 2000 Natural gas fired boilers or equivalent – Hilltop Apartments</b></p> <ul style="list-style-type: none"> <li>• Subject to Collateral Conditions in P 098-0056, 098-0061 and 098-0062</li> </ul>

## Section II: Emissions Units Information

<b>TABLE II.B: GROUPED EMISSIONS UNITS DESCRIPTION</b>	
<b>Grouped Emissions Units (GEU)</b>	<b>Grouped Emissions Unit Description</b>
<b>GEU-8</b>	<b>Subgroup 2: All natural gas fired heating equipment – Charter Oak Apartments and Suites, Husky Village, Hilltop Apartments Community Center (2353 Alumni Drive), and Hilltop Apartments Building No. 22 (22 Husky Circle)</b> <ul style="list-style-type: none"> <li>• Subject to Collateral Conditions in P 098-0056, 098-0061 and 098-0062</li> </ul>
	<b>Subgroup 3: All natural Gas fired heating equipment – Hilltop Suites</b> <ul style="list-style-type: none"> <li>• Subject to Collateral Conditions in P 098-0056, 098-0061 and 098-0062</li> </ul>
	<b>Subgroup 4: All natural gas fired heating equipment – Next Generation Connecticut Hall</b> <ul style="list-style-type: none"> <li>• Subject to Collateral Conditions in CP/OP 098-0026</li> </ul>
	<b>Subgroup 5: All natural gas fired heating equipment – Northwood Apartments</b> <ul style="list-style-type: none"> <li>• Subject to Collateral Conditions in CP/OP 098-0026</li> </ul>
	<b>Subgroup 6: All natural gas fired heating equipment – Innovation Partnership Building</b> <ul style="list-style-type: none"> <li>• Subject to Collateral Conditions in CP/OP 098-0026</li> </ul>
<b>GEU-9</b>	<b>EU-442, 443: Natural gas fired boilers</b> <ul style="list-style-type: none"> <li>• Subject to RCSA §22a-174-22e</li> <li>• <i>Not subject to RCSA §22a-174-3a</i></li> </ul>
<b>GEU-10</b>	<b>EU-1, 2, 9, 63: Emergency engines</b> <ul style="list-style-type: none"> <li>• Operating under NSR Permit Nos. 098-0011, 098-0012, 098-0019, 098-0054</li> <li>• Subject to RCSA §22a-174-22e</li> <li>• Subject to 40 CFR Part 63 Subpart ZZZZ</li> </ul>
<b>GEU-11</b>	<b>EU-5, 8: Emergency engines</b> <ul style="list-style-type: none"> <li>• Operating under NSR Permit Nos. 098-0015, 098-0018</li> <li>• Subject to 40 CFR Part 63 Subpart ZZZZ</li> </ul>
<b>GEU-13</b>	<b>EU-19, 20, 23, 27, 30, 42, 43, 48, 56, 57, 59, 575, 608, 609, 1314: Emergency engines</b> <ul style="list-style-type: none"> <li>• Subject to 40 CFR Part 63 Subpart ZZZZ: 19, 20, 23, 27, 30, 42, 43, 48, 56, 57, 59, 575, 608, 609</li> <li>• Subject to 40 CFR Part 60 Subpart JJJJ: 1314</li> <li>• <i>Not subject to RCSA §22a-174-3a or 22a-174-22e</i></li> </ul>
<b>GEU-14</b>	<b>EU-1436, 1437, 1438, 1439: TECOCHILL Chillers (non-emergency engines)</b> <ul style="list-style-type: none"> <li>• <i>Not subject to RCSA §22a-174-3a</i></li> <li>• Subject to Collateral Conditions in Permit No. 098-0026</li> <li>• Subject to 40 CFR Part 60 Subpart JJJJ</li> </ul>

## **Section II: Emissions Units Information**

### **C. STANDARD OPERATING SCENARIO IDENTIFICATION**

#### **Standard Operating Scenario**

The Permittee shall be allowed to operate under the following standard operating scenario without notifying the commissioner, provided that such operations are explicitly provided for and described below.

The Permittee has identified the following standard operating scenarios:

1. Emergency engines: the standard use of the emergency engines is to provide power to the facility in case of a utility power outage, brownout, or other emergency.
2. Boilers: the standard use of the boilers is to provide steam for building heating, hot water and to operate some absorption chillers.
3. Motor pool fuel distribution: the standard use for the motor pool fuel distribution is to store and dispense gasoline and diesel fuel for campus vehicles.
4. Combustion turbines and duct burners: the standard use of the combustion turbines and duct burners is to provide electrical power for campus operation and steam for building heating and cooling.
5. Other small heating equipment: the standard use of other small heating equipment is to provide for building heating and hot water.
6. Chiller engines/Chillers: the standard use of the non-emergency engines is to provide chilled water for cooling various buildings on campus.

#### **Alternative Operating Scenario**

There are no alternative operating scenarios.



### 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. GROUPED EMISSIONS UNIT 1 (GEU-1): Emergency Engines

- EU-54:** 2.63 MMBtu/hr (370 hp) Kohler diesel fired emergency engine – Commissary Warehouse
- EU-567:** 1.14 MMBtu/hr (168 hp) Spectrum Detroit Diesel fired emergency engine – North Campus Parking Garage
- EU-576:** 1.47 MMBtu/hr (250 hp) Kohler diesel fired emergency fire pump engine – Field House
- EU-607:** 2.88 MMBtu/hr (383 hp) Cummins natural gas fired emergency engine – Towers Dorms
- EU-1282:** 1.95 MMBtu/hr (274 hp) Caterpillar CD175-2 diesel fired emergency engine Police/Fire Complex
- EU-1315:** 0.59 MMBtu/hr (64 hp) Cummins natural gas fired emergency engine – Basketball Training Facility
- EU-1322:** 1.50 MMBtu/hr (241 hp) Marathon diesel fired emergency engine – Student Health Services
- EU-1325:** 1.12 MMBtu/hr (149 hp) Generac natural gas fired emergency engine – Main Accumulation Area
- EU-1407:** 0.93 MMBtu/hr (98 hp) Generac natural gas fired emergency engine – Bronwell Building

#### Classification:

- Emergency engines operating under RCSA §22a-174-3b(e)
- *Not subject to RCSA §22a-174-22e*

#### 1. Operational Restrictions, Maximum Hours of Operation and Fuel Sulfur Content

##### a. Limitation or Restriction

- i. The Permittee shall operate each engine as an emergency engine as defined in RCSA §22a-174-22e(a)(13). [RCSA §§22a-174-22e and 22a-174-33(j)(1)(K)(ii)]
- ii. The Permittee shall not allow any of the emergency engines to operate except during periods of testing and scheduled maintenance or during an emergency and unless the following conditions are met: [RCSA §22a-174-3b(e)(2)]
  - (A) The Permittee shall operate the emergency engine for a maximum of 300 hours during any 12 month rolling aggregate. [RCSA §22a-174-3b(e)(2)(C)]
  - (B) Any non-gaseous fuel consumed by each engine shall not exceed the sulfur content of motor vehicle diesel fuel where “motor vehicle diesel fuel” is defined in RCSA §22a-174-42. [RCSA §22a-174-3b(e)(2)(D)]

##### b. Monitoring and Testing Requirements

Record keeping specified in Section III.A.1.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)]

### Section III: Applicable Requirements and Compliance Demonstration

#### c. Record Keeping Requirements

The Permittee shall make and keep the following records:

- i. Hours of operation for each month and each 12 month rolling aggregate. [RCSA §22a-174-3b(e)(4)]
- ii. Any of the records listed below are sufficient to demonstrate the sulfur content of fuel used: [RCSA §§22a-174-3b(h)(1) thru (3)]
  - (A) A fuel certification for a delivery of non-gaseous fuel from a bulk petroleum provider;
  - (B) A sales receipt for the sale of motor vehicle diesel fuel from a retail location; or
  - (C) A copy of a current contract with the fuel supplier supplying the fuel as a condition of each shipment.
- iii. All records above shall be maintained for a period of five years and made available to the commissioner to inspect and copy upon request. [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)]

## 2. 40 CFR Part 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

### EU-54, 567, 576, 607 ONLY

#### Classification:

- Engine Category: Institutional Emergency
- At the time of this Title V renewal (Application No. 201806541), each unit is an Existing Stationary Engine located at an Area Source of HAPs, constructed before June 12, 2006. The emergency engines meet the definition of Emergency Stationary RICE in 40 CFR §63.6675 and operate according to the provisions of 40 CFR §63.6640(f). The emergency engines are not contractually obligated to be used in Emergency Demand Response (EDR) or for local reliability criteria per 40 CFR §63.6585(f).
- *The Permittee should re-evaluate the requirements of 40 CFR Part 63 Subpart ZZZZ if any of the above conditions change.*

#### a. Limitation or Restriction

The Permittee may operate the emergency stationary RICE for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state,

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

or local standards require maintenance and testing of the emergency engine beyond 100 hours per calendar year. [40 CFR §63.6640(f)(2)]

**Note:**

- The Permittee must maintain compliance with these operating limitations in order to be considered an emergency engine and maintain exemption from other requirements of 40 CFR Part 63 Subpart ZZZZ.
- The 100 hours and any additional approved time used for maintenance checks and readiness testing as described in Section III.A.2.a of this Title V permit shall count towards the hours of operation in Section III.A.1.a.ii.A of this Title V permit.

*b. Monitoring and Testing Requirements*

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

*c. Record Keeping Requirements*

The Permittee must keep records of the operation of each engine in emergency and non-emergency service through the non-resettable hour meter. The Permittee must record the time of operation for each engine and the reason the engine was in operation during that time.  
[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)]

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

#### **EU-1282, 1322 ONLY**

**Classification:**

- Emergency engine
- At the time of this Title V renewal (Application No. 201806541), each unit is an Emergency Compression Ignition Engine constructed after June 11, 2005 where the engines were manufactured after April 1, 2006 (EU-1282: Model year 2011 and EU-1322: Model year 2014).
- *The Permittee should re-evaluate the requirements of 40 CFR Part 60 Subpart III if any of the above conditions change.*

*a. Limitation or Restriction*

- i. The Permittee shall comply with the applicable emission standards for all pollutants for a new non-road compression ignition emergency engine, of the same model year and maximum engine power as EU-1282 and EU-1322 as listed in 40 CFR §60.4202.  
[40 CFR §60.4205(b)]
- ii. The Permittee may operate the emergency stationary RICE for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are

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

recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of the emergency engine beyond 100 hours per calendar year. [40 CFR §60.4211(f)(2)]

#### **Note:**

- The Permittee must maintain compliance with these operating limitations in order to be considered an emergency engine and maintain exemption from other requirements of 40 CFR Part 60 Subpart III.
- The 100 hours and any additional approved time used for maintenance checks and readiness testing as described in Section III.A.3.a.ii of this Title V permit shall count towards the hours of operation in Section III.A.1.a.ii.A of this Title V permit.

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

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

#### *c. Record Keeping Requirements*

- i. The Permittee shall comply with all record keeping requirements of the General Provisions in 40 CFR §§60.1 through 60.19, inclusive, as specified in 40 CFR Part 60 Subpart III, Table 8. [40 CFR §60.4218]
- ii. The Permittee shall maintain appropriate records indicating compliance with the emission limitation requirements in Sections III.A.3.a of this Title V permit. Such records may include, but are not limited to, manufacturer's specifications and operating recommendations, purchase records and internal operating procedures. [RCSA §22a-174-33(j)(1)(K)(ii)]
- iii. If the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR §60.4214(b)]

#### *d. Reporting Requirements*

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

### Section III: Applicable Requirements and Compliance Demonstration

#### 4. 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines EU-1315, 1325, 1407 ONLY

##### **Classification:**

- Emergency engine
- At the time of this Title V renewal (Application No. 201806541), each unit is an Emergency Spark Ignition Engine constructed after June 12, 2006 where the engines were manufactured on or after January 1, 2009.
- Pursuant to 40 CFR §63.6590(c), each emergency engine meets the requirements of 40 CFR Part 63 Subpart ZZZZ by complying with 40 CFR Part 60 Subpart JJJJ.
- *The Permittee should re-evaluate the requirements of 40 CFR Part 60 Subpart JJJJ if any of the above conditions change.*

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

- i. The Permittee shall comply with the applicable emission standards for all pollutants for a new spark ignition emergency engine as listed in 40 CFR §§60.4233(d) and (e) and 40 CFR Part 60 Subpart JJJJ – Table 1 by purchasing an engine certified according to the procedures specified in 40 CFR Part 60 Subpart JJJJ for the same model year. [40 CFR §60.4243(b)(1)]
- ii. The Permittee shall operate and maintain the engines to achieve the emission standards as required in 40 CFR §60.4233 over the entire life of the engine. [40 CFR §60.4234]
- iii. The Permittee shall operate and maintain each certified stationary spark ignition engine according to the manufacturer's emission related written instructions. [40 CFR §60.4243(a)(1)]
- iv. The Permittee may operate the emergency stationary reciprocating internal combustion engine for a maximum of 100 hours per calendar year 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 the emergency engine beyond 100 hours per calendar year. [40 CFR §§60.4243(d)(2)(i)]

##### Note:

- The Permittee must maintain compliance with these operating limitations in order to be considered an emergency engine and maintain exemption from other requirements of 40 CFR Part 60 Subpart JJJJ.
- The 100 hours and any additional approved time used for maintenance checks and readiness testing as described in Section III.A.4.a.iv of this Title V permit shall count towards the hours of operation in Section III.A.1.a.ii.A of this Title V permit.

### Section III: Applicable Requirements and Compliance Demonstration

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

Record keeping specified in Section III.A.4.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*

- i. The Permittee shall comply with all record keeping requirements of the General Provisions in 40 CFR §§60.1 through 60.19, inclusive, as specified in 40 CFR Part 60 Subpart JJJJ, Table 3. [40 CFR §60.4246]
- ii. The Permittee shall keep records of maintenance conducted on each engine.  
[40 CFR §60.4245(a)(2)]
- iii. The Permittee shall keep documentation from the manufacturer certifying compliance with the emissions standards in Section III.A.4.a.i of this Title V permit.  
[40 CFR §60.4245(a)(3)]
- iv. The Permittee shall keep records of all notifications submitted to comply with 40 CFR Part 60 Subpart JJJJ and all documentation supporting any notification. [40 CFR §60.4245(a)]

#### *d. Reporting Requirements*

The Permittee shall comply with all reporting requirements of the General Provisions in 40 CFR §§60.1 through 60.19, inclusive, as specified in 40 CFR Part 60 Subpart JJJJ.  
[40 CFR §60.4246]

### **B. GROUPED EMISSIONS UNIT 2 (GEU-2): Emergency Engines**

- EU-55:** 5.38 MMBtu/hr (749 hp) Caterpillar diesel fired emergency engine – Thomas J. Dodd Research Center
- EU-565:** 12 MMBtu/hr (1,881 hp) Mitsubishi diesel fired emergency engine No. 1 – Central Utility Plant
- EU-566:** 12 MMBtu/hr (1,881 hp) Mitsubishi diesel fired emergency engine No. 2 – Central Utility Plant
- EU-568:** 4.05 MMBtu/hr (531 hp) Cummins natural gas fired emergency engine – Ag Biotech Building
- EU-579:** 5.06 MMBtu/hr (760 hp) Kohler diesel fired emergency engine – South Campus Chiller Plant
- EU-598:** 14.88 MMBtu/hr (2,172 hp) Caterpillar diesel fired black start emergency engine – Central Utility Plant
- EU-1283:** 5.85 MMBtu/hr (900 hp) Caterpillar diesel fired emergency engine – Willimantic Well Field
- EU-1286:** 4.53 MMBtu/hr (752 hp) MTU Onsite Energy diesel fired emergency engine – Reclaimed Water Facility Building
- EU-1324:** 4.82 MMBtu/hr (762 hp) Taylor diesel fired emergency engine – Mobile Generator
- EU-1347:** 4.15 MMBtu/hr (755 hp) Cummins diesel fired emergency engine – Gurleyville Lift Station

### Section III: Applicable Requirements and Compliance Demonstration

#### Classification:

- Emergency engines operating under RCSA §22a-174-3b(e)
- Subject to RCSA §22a-174-22e

#### 1. Operational Restrictions, Maximum Hours of Operation and Fuel Sulfur Content

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

- i. The Permittee shall operate each engine as an emergency engine as defined in RCSA §22a-174-22e(a)(13). [RCSA §§22a-174-22e and 22a-174-33(j)(1)(K)(ii)]
- ii. The Permittee shall not allow any of the emergency engines to operate except during periods of testing and scheduled maintenance or during an emergency and unless the following conditions are met: [RCSA §22a-174-3b(e)(2)]
  - (A) The Permittee shall operate each emergency engine for a maximum of 300 hours during any 12 month rolling aggregate. [RCSA §22a-174-3b(e)(2)(C)]
  - (B) Any non-gaseous fuel consumed by each engine shall not exceed the sulfur content of motor vehicle diesel fuel where “motor vehicle diesel fuel” is defined in RCSA §22a-174-42. [RCSA §22a-174-3b(e)(2)(D)]
  - (C) The Permittee shall not operate any emergency engine in GEU-2 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 each 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 each emergency engine on the following day. [RCSA §22a-174-22e(d)(14)]

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

Record keeping specified in Section III.B.1.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 make and keep the following records:

- i. Hours of operation for each month and each 12 month rolling aggregate. [RCSA §22a-174-3b(e)(4)]
- ii. Any of the records listed below are sufficient to demonstrate the sulfur content of fuel used: [RCSA §§22a-174-3b(h)(1) thru (3)]

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

- (A) A fuel certification for a delivery of non-gaseous fuel from a bulk petroleum provider;
- (B) A sales receipt for the sale of motor vehicle diesel fuel from a retail location; or
- (C) A copy of the current contract with the fuel supplier supplying the fuel as a condition of each shipment.

iii. All records above shall be maintained for a period of five years and made available to the commissioner to inspect and copy upon request. [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)]

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

#### *a. Limitation or Restriction*

The Permittee shall operate each engine as an emergency engine as defined in RCSA §22a-174-22e(a)(13). [RCSA §§22a-174-22e and 22a-174-33(j)(1)(K)(ii)]

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

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

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep the following records:
  - (A) For an emergency engine not subject to 40 CFR Part 63 Subpart ZZZZ, records of total operating hours of such engine, identifying the dates and operating hours of emergency use and the reason for non-emergency operation. [RCSA §22a-174-22e(j)(2)(A)]
  - (B) For an emergency engine subject to 40 CFR Part 63 Subpart ZZZZ, records shall be those required by 40 CFR §63.6655. [RCSA §22a-174-22e(j)(2)(A)]
- ii. The date and work performed for repairs, replacement of parts and other maintenance. [RCSA §22a-174-22e(j)(2)(B)]
- iii. Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(F)]
- iv. 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 retain all records and reports produced pursuant to RCSA §22a-174-



### Section III: Applicable Requirements and Compliance Demonstration

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 each emission unit is located, unless the commissioner approves in writing the use of another location in Connecticut. [RCSA §22a-174-22e(j)(1)]

#### *d. Reporting Requirements*

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

### 3. 40 CFR Part 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

#### **EU-55, 565, 566, 568, 579, 598 ONLY**

##### **Classification:**

- Engine Category: Institutional Emergency
- At the time of this Title V renewal (Application No. 201806541), each unit is an Existing Stationary Engine located at an Area Source of HAPs, constructed before June 12, 2006. The emergency engines meet the definition of Emergency Stationary RICE in 40 CFR §63.6675 and operate according to the provisions of 40 CFR §63.6640(f). The emergency engines are not contractually obligated to be used in Emergency Demand Response (EDR) or for local reliability criteria per 40 CFR §63.6585(f).
- *The Permittee should re-evaluate the requirements of 40 CFR Part 63 Subpart ZZZZ if any of the above conditions change.*

#### *a. Limitation or Restriction*

The Permittee may operate the emergency stationary RICE for a maximum of 100 hours per calendar year 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 RICE beyond 100 hours per calendar year. [40 CFR §§63.6640(f)(2)]

##### **Note:**

- The Permittee must maintain compliance with these operating limitations in order to be considered an emergency engine and maintain exemption from other requirements of 40 CFR Part 63 Subpart ZZZZ.
- The 100 hours and any additional approved time used for maintenance checks and readiness testing as described in Section III.B.3.a of this Title V permit shall be counted towards the hours of operation in Section III.B.1.a.ii.A of this Title V permit.

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

Record keeping specified in Section III.B.3.c of this Title V permit shall be sufficient to meet other Monitoring and Testing Requirements pursuant to RCSA §22a-174-33.

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

[RCSA §22a-174-33(j)(1)(K)(ii)]

*c. Record Keeping Requirements*

The Permittee must keep records of the operation of each engine in emergency and non-emergency service through the non-resettable hour meter. The Permittee must record the time of operation for each engine and the reason the engine was in operation during that time. [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)]

#### **4. 40 CFR Part 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**

**EU-1283, 1286, 1324, 1347 ONLY**

**Classification:**

- Emergency engines
- At the time of this Title V renewal (Application No. 201806541), each unit is an Emergency Compression Ignition Engine constructed after June 11, 2005 where the engine was manufactured after April 1, 2006 (EU-1283 - Model year: 2011, EU-1286 - Model year: 2012, EU-1324 – Model Year: 2015, EU-1347 – Model Year 2015).
- *The Permittee should re-evaluate the requirements of 40 CFR Part 60 Subpart III if any of the above conditions change.*

*a. Limitation or Restriction*

- i. The Permittee shall comply with the applicable emission standards for all pollutants for a new non-road compression ignition emergency engine of the same model year and maximum engine power as EU-1283, 1286, 1324 and 1347 respectively, as listed in 40 CFR §60.4202. [40 CFR §60.4205(b)]
- ii. The Permittee may operate the emergency stationary RICE for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of the emergency engine beyond 100 hours per calendar year. [40 CFR §60.4211(f)(2)]

**Note:**

- The Permittee must maintain compliance with these operating limitations in order to be considered an emergency engine and maintain exemption from other requirements of 40 CFR

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

#### Part 60 Subpart III.

- The 100 hours and any additional approved time used for maintenance checks and readiness testing as described in Section III.B.4.a.ii of this Title V permit shall count towards the hours of operation in Section III.B.1.a.ii.A of this Title V permit.

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

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

#### *c. Record Keeping Requirements*

- i. The Permittee shall comply with all record keeping requirements of the General Provisions in 40 CFR §§60.1 through 60.19, inclusive, as specified in 40 CFR Part 60 Subpart III, Table 8. [40 CFR §60.4218]
- ii. The Permittee shall maintain appropriate records indicating compliance with the emission limitation requirements in Sections III.B.4.a of this Title V permit. Such records may include, but are not limited to, manufacturer's specifications and operating recommendations, purchase records and internal operating procedures. [RCSA §22a-174-33(j)(l)(K)(ii)]
- iii. If the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR §60.4214(b)]

#### *d. Reporting Requirements*

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

### **C. GROUPED EMISSIONS UNIT 3 (GEU-3): Registered Boilers**

#### **Central Utility Plant**

- EU-11:** Bigelow boiler No. 1 (Registration No. 098-0014-R)
- EU-12:** Bigelow boiler No. 2 (Registration No. 098-0015-R)
- EU-13:** Bigelow boiler No. 3 (Registration No. 098-0016-R)
- EU-17:** Bigelow boiler No. 7 (Registration No. 098-0020-R)

#### **Classification:**

- Registered boilers
- Collateral conditions in Permit No. 098-0026
- Subject to Consent Order No. 8311 – Modification 1
- Subject to RCSA §22a-174-22e
- Subject to 40 CFR Part 63 Subpart JJJJJ

### Section III: Applicable Requirements and Compliance Demonstration

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

##### a. Limitation or Restriction

- i. The Permittee shall not cause or allow an emission unit to exceed the following: [RCSA §§22a-174-22e(d)(A) and (C)]
  - (A) Phase I (Beginning June 1, 2018 and ending May 31, 2023)  
EU-11, 12, 13 and 17:  
Natural Gas: 0.20 lb/MMBtu  
No. 2 Fuel Oil: 0.20 lb/MMBtu
  - (B) Phase II (Beginning June 1, 2023 and continuing thereafter)
    - (1) EU-11, 12 and 13:  
Natural Gas: 0.05 lb/MMBtu  
No. 2 Fuel Oil: 0.10 lb/MMBtu
    - (2) EU-17:  
Natural Gas: 0.10 lb/MMBtu  
No. 2 Fuel Oil: 0.15 lb/MMBtu
- ii. The Permittee shall not cause or allow an emission unit to exceed the applicable emission limitations specified in Section III.C.1.a.i.(B) unless the Permittee undertakes one of the following actions: [RCSA §§22a-174-22e(d)(1)(A), (B) and (C)]
  - (A) Implements an alternative compliance mechanism as provided in RCSA §22a-174-22e(g);
  - (B) Operates under a case-by-case RACT determination as provided in RCSA §22a-174-22e(h); or
  - (C) Ceases operation as provided in RCSA §22a-174-22e(f).
- iii. The Permittee shall conduct tune-ups according to the schedule and procedures of the applicable requirements of 40 CFR Part 63 Subpart JJJJJ. If the period between tune-ups in the applicable requirements of 40 CFR Part 63 Subpart JJJJJ is greater than 60 months, a tune-up shall be conducted at least once every 60 months. [RCSA §22a-174-22e(i)(2)]

##### b. Monitoring and Testing Requirements

- i. The Permittee of an existing emission unit shall conduct initial emissions test on a date during Phase 1 that is no more than 63 calendar months following the date the last emission test performed pursuant to former RCSA §22a-174-22(k). [RCSA §22a-174-22e(l)(4)]
- ii. The Permittee of an existing emission unit subject to RCSA §22a-174-22e shall conduct the emission test following the initial emission test on a date after May 31, 2023 and no later than June 1, 2025. Subsequently, the Permittee shall conduct emission tests within every 63 calendar months following the date the previous emission test was conducted or the date the previous emission test was required to be conducted, whichever is earlier. [RCSA §22a-174-22e(l)(5)]

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

- iii. The Permittee shall conduct each emission test in accordance with RCSA §22a-174-5 and compliance with the emissions limitations in RCSA §22a-174-22e shall be determined as prescribed by RCSA §§22a-174-22e(1)(6) through (1)(8).  
[RCSA §§22a-174-22e(1)(6) through (1)(8)]

#### *c. Record Keeping Requirements*

- i. The Permittee of an emission unit subject to RCSA §22a-174-22e shall make and keep the following records on and after May 1, 2018: [RCSA §22a-174-22e(j)]
  - (A) The date and work performed for repairs, replacement of parts and other maintenance;
  - (B) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e
  - (C) Records of the dates and times of all emission testing required by RCSA §22a-174-22e, the persons performing the measurements, the testing method used, the operating conditions at the time of testing, and the results of such testing;
  - (D) For each tune-up, for each emission unit, conducted pursuant to RCSA §22a-174-22e(i):
    - (1) The date on which the emission unit is tuned-up; the name, title and affiliation of the person performing the tune-up, and a description of work performed, and
    - (2) The procedures used to inspect and perform adjustments.

#### *d. Reporting Requirements*

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

## **2. Fuel Type and Fuel Sulfur Content**

#### *a. Limitation or Restriction*

- i. The Permittee shall burn natural gas or No. 2 fuel oil.  
[Collateral Condition in CP/OP 098-0026]
- ii. The sulfur content in the fuel shall not exceed 15 ppm by weight.  
[CGS §16a-21a, RCSA §22a-174-19(b)]

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

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

#### *c. Record Keeping Requirements*

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

- i. The Permittee shall keep records of the fuel certification for each delivery of fuel oil from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel. [RCSA §22a-174-4(d)(1)]
- ii. The Permittee shall make and keep records for a minimum of five years; commencing on the date such records were created. [RCSA §22a-174-33(o)(2)]

#### *d. Reporting Requirements*

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

### **3. Particulate Matter**

#### *a. Limitation or Restriction*

The Permittee shall emit no more than the following particulate matter levels:

- i. 0.10 lb/MMBtu when burning natural gas [RCSA §22a-174-18(e)(2)(B)]
- ii. 0.12 lb/MMBtu when burning No. 2 fuel oil [RCSA §22a-174-18(e)(2)(C)]

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

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

#### *c. Record Keeping Requirements*

- i. The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.C.3.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]
- ii. The Permittee shall make and keep records for a minimum of five years; commencing on the date such records were created. [RCSA §22a-174-33(o)(2)]

#### *d. Reporting Requirements*

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

### **4. Maximum Capacity Restrictions**

#### *a. Limitation or Restriction*

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

The Permittee shall comply with the maximum capacity restrictions as follows:

[Consent Order No. 8311, Modification 1- C.1]

- i. EU-11: Bigelow boiler No. 1  
Natural Gas: 65.52 MMBtu/hr  
No. 2 Fuel Oil: 66.18 MMBtu/hr
- ii. EU-12: Bigelow boiler No. 2  
Natural Gas: 74.09 MMBtu/hr  
No. 2 Fuel Oil: 66.93 MMBtu/hr
- iii. EU-13: Bigelow boiler No. 3  
Natural Gas: 78.53 MMBtu/hr  
No. 2 Fuel Oil: 66.87 MMBtu/hr
- iv. EU-17: Bigelow boiler No. 7  
Natural Gas: 111.1 MMBtu/hr  
No. 2 Fuel Oil: 111.1 MMBtu/hr

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

The Permittee shall conduct emissions testing when the emission unit is operating at or above 90% of maximum capacity, unless allowed otherwise by the commissioner in a permit or order.

[Consent Order No. 8311, Modification 1 – A.4]

#### *c. Record Keeping Requirements*

[Consent Order No. 8311, Modification 1 - C.2]

- i. The Permittee shall retain records and supporting documentation including but not limited to, actual gallons or cubic feet per hour of fuel burned and heat input per hour to demonstrate that Boiler 1, Boiler 2, Boiler 3 and Boiler 7 are operating in compliance with the boiler maximum capacity restrictions in Section III.C.4.a of this Title V permit.
- ii. The Permittee shall retain records and supporting documentation for a minimum of five years; commencing on the date such records were created.
- iii. The Permittee shall provide the records specified above to the commissioner within 30 days of receipt of a written request from the commissioner.
- iv. All records shall be maintained in accordance with RCSA §§22a-174-4 and 22a-174-22e.

#### *d. Reporting Requirements*

[Consent Order No. 8311, Modification 1 – C.3]

- i. The Permittee shall notify the commissioner within 30 days after discovery of an exceedance of the limits in Section III.C.4.a of this Title V permit.
- ii. Thereafter, the highest heat input rate achieved above operating limits shall supersede the limit specified in Section III.C.4.a of this Title V permit.

### Section III: Applicable Requirements and Compliance Demonstration

- iii. The Permittee shall conduct NO<sub>x</sub> emissions testing at no less than 90 percent of that heat input rate.

#### 5. 40 CFR Part 63 Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

##### Classification:

- Existing oil fired boilers (Table 2, Options 14 and 16)
- Boilers equipped with Oxygen trim system
- *The Permittee should re-evaluate the requirements of 40 CFR Part 63 Subpart JJJJJJ if any of the above conditions change.*

##### a. Limitation or Restriction

- i. The Permittee shall demonstrate initial compliance with 40 CFR Part 63 Subpart JJJJJJ according to the applicable provisions in 40 CFR §63.7(a)(2), except as provided in 40 CFR §63.11210(j). [40 CFR §63.11210(c)]
- ii. The Permittee shall conduct a tune-up every five years as specified in 40 CFR §63.11223. Each five year tune-up must be conducted no more than 61 months after the previous tune-up. The Permittee must conduct the tune-up while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. [40 CFR §§63.11223(a) and (c)]
- iii. The Permittee, at all times, shall operate and maintain this boiler in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by 40 CFR Part 63 Subpart JJJJJJ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR §63.11205(a)]

##### b. Monitoring and Testing Requirements

Record keeping specified in Section III.C.5.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

- i. The Permittee shall keep, as required in 40 CFR §63.10(b)(2)(xiv), a copy of each notification and report that is submitted to comply with 40 CFR Part 63 Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that is submitted. [40 CFR §63.11225(c)(1)]
- ii. The Permittee shall keep records that identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned. [40 CFR §63.11225(c)(2)(i)]



### Section III: Applicable Requirements and Compliance Demonstration

- iii. The Permittee shall keep records of 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. [40 CFR §63.11223(b)(6)(i)]
- iv. The Permittee shall keep records of any corrective actions taken as a part of the tune-up of the boiler. [40 CFR §63.11223(b)(6)(ii)]
- v. The Permittee shall keep records of the type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was typically 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. [40 CFR §63.11223(b)(6)(iii)]
- vi. The Permittee shall keep a copy of the energy assessment report. [40 CFR §63.11225(c)(2)(iii)]
- vii. The Permittee shall keep records of the occurrence and duration of each malfunction of the boiler. [40 CFR §63.11225(c)(4)]
- viii. The Permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR §63.11205(a), including corrective actions to restore the malfunctioning boiler to its normal or usual manner of operation. [40 CFR §63.11225(c)(5)]

#### *d. Reporting Requirements*

- i. The Permittee shall prepare a five year compliance certification report for the previous calendar year containing the information in 40 CFR §§63.11225(b)(1) and (2). This report shall be prepared by March 1 of the calendar year that follows the year that the compliance tune-up was performed and submitted to the delegated authority upon request. The report must be submitted by March 15 if there were any instances described in paragraph 40 CFR §63.11225(b)(3). [40 CFR §63.11225(b)]
- ii. No later than 120 days after the compliance date specified in 40 CFR §63.11196, the Permittee shall submit a signed statement in the Notification of Compliance Status report that indicates that the Permittee conducted a tune-up of the boiler. [40 CFR §63.11214(b)]
- iii. No later than 120 days after the compliance date specified in 40 CFR §63.11196, the Permittee shall submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed according to Table 2 of 40 CFR Part 63 Subpart JJJJJ and is an accurate depiction of the Permittee's facility. [40 CFR §63.11214(c)]

#### **D. GROUPED EMISSIONS UNIT 5 (GEU-5): Emergency Engines**

- EU-66:** 0.51 MMBtu/hr (66 hp) Onan diesel fired emergency engine - WPCF Eastwood Road
- EU-67:** 0.51 MMBtu/hr (66 hp) Onan diesel fired emergency engine – WPCF Mansfield Apartments
- EU-68:** 0.51 MMBtu/hr (66 hp) Onan diesel fired emergency engine – WPCF Northwood Apartments
- EU-584:** 2.19 MMBtu/hr (268 hp) Caterpillar LPG fired emergency engine – Alumni Quad
- EU-585:** 1.09 MMBtu/hr (150 hp) Kohler LPG fired emergency engine – Buckley Hall

### Section III: Applicable Requirements and Compliance Demonstration

- EU-586:** 0.90 MMBtu/hr (105 hp) Kohler LPG fired emergency engine – Shippee Hall
- EU-587:** 0.91 MMBtu/hr (92 hp) Onan LPG fired emergency engine – McMahon Hall
- EU-588:** 1.6 MMBtu/hr (173 hp) Caterpillar natural gas fired emergency engine – Hilltop (Capstone) Apartments
- EU-591:** 0.30 MMBtu/hr (37 hp) Kohler natural gas fired emergency engine – Hilltop Dorms
- EU-599:** 0.49 MMBtu/hr (54 hp) Cummins natural gas fired emergency engine – Poultry Facility
- EU-606:** 0.79 MMBtu/hr (115 hp) Cummins natural gas fired emergency engine – Burton Football Complex
- EU-1284:** 2.12 MMBtu/hr (224 hp) Olympian LPG fired emergency engine – Floriculture Building
- EU-1285:** 0.29 MMBtu/hr (34 hp) Generac natural gas fired emergency engine – President’s Residence
- EU-1323:** 0.72 MMBtu/hr (99 hp) Ingersoll – Rand diesel fired emergency engine – WHUS Radio Tower
- EU-1330:** 4.82 MMBtu/hr (636 hp) Generac natural gas fired emergency engine – Putnam Refectory
- EU-1331:** 4.82 MMBtu/hr (636 hp) Generac natural gas fired emergency engine – Putnam Refectory
- EU-1332:** 4.82 MMBtu/hr (636 hp) Generac natural gas fired emergency engine – Putnam Refectory
- EU-1348:** 4.86 MMBtu/hr (637 hp) Caterpillar natural gas fired emergency engine – Innovation Partnership Building
- EU-1435:** 2.06 MMBtu/hr (251 hp) Generac natural gas fired emergency engine – Kellogg Barn

#### Classification:

- Emergency engines operating under collateral conditions in CP/OP 098-0026, P 098-0056, 098-0061 and 098-0062
- Subject to RCSA §22a-174-22e
- Subject to 40 CFR Part 63 Subpart ZZZZ
- Subject to 40 CFR Part 60 Subpart JJJJ
- *Not subject to RCSA §22a-174-3a*

#### 1. Maximum Hours of Operation

##### a. Limitation or Restriction

- i. **Collateral Condition in CP/OP 098-0026:** EU-584, 585, 586, 587, 588, 591, 1284, 1285, 1323, 1330, 1331, 1332, 1348, 1435:  
The Permittee shall not operate each emergency engine for more than 300 hours over any consecutive 12 month period.
- ii. **Collateral condition in Permit Nos. 098-0056, 098-0061 and 098-0062:** EU-599, 606:  
The Permittee shall not operate each emergency engine for more than 300 hours over any consecutive 12 month period.
- iii. **Collateral condition in CP/OP 098-0026:** EU-66, 67, 68:  
The Permittee shall not operate the emergency engines for more than 500 hours over any consecutive 12 month period.

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

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

The Permittee shall monitor monthly and consecutive 12 month period operating hours for each emergency engine. [CP/OP 098-0026, P 098-0056, 098-0061, 098-0062]

#### *c. Record Keeping Requirements*

- i. The Permittee shall keep records for each emergency engine of monthly and consecutive 12 month period of the operating hours. The 12 consecutive month period shall be determined by adding, for each emergency engine, the current month's operating hours to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.  
[CP/OP 098-0026, P 098-0056, 098-0061, 098-0062]
- ii. The Permittee shall keep records on the premises indicating continual compliance with the above conditions at all times and shall make them available upon request by the commissioner. The Permittee shall retain all required records and reports for five years.  
[CP/OP 098-0026, P 098-0056, 098-0061, 098-0062]

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

### **EU-1330, 1331, 1332, 1348 ONLY**

#### *a. Limitation or Restriction*

- i. The Permittee shall operate each engine as an emergency engine as defined in RCSA §22a-174-22e(a)(13).  
[CP/OP 098-0026, RCSA §§22a-174-22e and 22a-174-33(j)(1)(K)(ii)]
- ii. The Permittee of an emergency engine shall not operate the emergency engine for routine, scheduled testing or maintenance on any day for which the commissioner has forecast that ozone levels will be "moderate to unhealthy for sensitive groups" or greater. If, subsequent to the initial forecast of "moderate to unhealthy for sensitive groups" or greater, the forecast is revised to "moderate" or lower, the owner or operator is no longer prohibited from operating the engine for routine, scheduled testing or maintenance for the remainder of that day. An owner or operator of an emergency engine may rely on an ozone forecast of "moderate" or lower obtained after 3 p.m. on the preceding day. Subsequent changes to the ozone forecast after 3 p.m. that forecast ozone levels of "moderate to unhealthy for sensitive groups" or greater shall not obligate the owner or operator to refrain from operation of the emergency engine at the facility on the following day. The commissioner may exempt, by permit or order, the owner or operator of an emergency engine from this subdivision 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)]

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

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

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

#### *c. Record Keeping Requirements*

- i. The Permittee of an emergency engine shall make and keep the following records:  
[RCSA §22a-174-22e(j)(2)]
  - (A) Records of total monthly operating hours of each engine, identifying the dates and operating hours of non-emergency use and the reason for non-emergency operation;
  - (B) The date and work performed for repairs, replacement of parts and other maintenance; and
  - (C) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e.
- ii. The Permittee shall keep all records required for a period of no less than five years and shall submit such records to the commissioner upon request. [RCSA §22a-174-33(j)(1)(X)]

#### *d. Reporting Requirements*

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

### **3. 40 CFR Part 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

**EU-66, 67, 68, 584, 585, 586, 587, 588, 591, 599, 606, 1323 ONLY**

#### **Classification:**

- Engine Category: Institutional Emergency
- At the time of this Title V renewal (Application No. 201806541), each unit is an Existing Stationary Engine located at an Area Source of HAPs, constructed before June 12, 2006. The emergency engines meet the definition of Emergency Stationary RICE in 40 CFR §63.6675 and operate according to the provisions of 40 CFR §63.6640(f). The emergency engines are not contractually obligated to be used in Emergency Demand Response (EDR) or for local reliability criteria per 40 CFR §63.6585(f).
- *The Permittee should re-evaluate the requirements of 40 CFR Part 63 Subpart ZZZZ if any of the above conditions change.*

#### *a. Limitation or Restriction*

The Permittee may operate the emergency stationary RICE for a maximum of 100 hours per calendar year 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

### Section III: Applicable Requirements and Compliance Demonstration

insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of the emergency engine beyond 100 hours per calendar year. [40 CFR §63.6640(f)(2)(i)]

**Note:**

- The Permittee must maintain compliance with these operating limitations in order to be considered an emergency engine and maintain exemption from other requirements of 40 CFR Part 63 Subpart ZZZZ.
- The 100 hours and any additional approved time used for maintenance checks and readiness testing as described in Section III.D.3.a of this Title V permit shall count towards the hours of operation in Sections III.D.1.a.i, ii and iii of this Title V permit.

*b. Monitoring and Testing Requirements*

- i. Each engine must be equipped with a non-resettable hour meter. [40 CFR §63.6625(f)]
- ii. Record keeping specified in Section III.D.3.c of this Title V permit shall be sufficient to meet other Monitoring and Testing Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

*c. Record Keeping Requirements*

The Permittee must keep records of the operation of the engine in emergency and non-emergency service through the non-resettable hour meter. The Permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [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)]

#### 4. 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

**EU-1284, 1285, 1330, 1331, 1332, 1348, 1435 ONLY**

**Classification:**

- Emergency Spark Ignition Engine constructed after June 12, 2006 where the engine was manufactured on or after January 1, 2009
- Pursuant to 40 CFR §63.6590(c), these emergency engines meet the requirements of 40 CFR Part 63 Subpart ZZZZ by complying with 40 CFR Part 60 Subpart JJJJ.
- *The Permittee should re-evaluate the requirements of 40 CFR Part 60 Subpart JJJJ if any of the above conditions change.*

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

#### *a. Limitation or Restriction*

- i. The Permittee shall comply with the applicable emission standards for all pollutants for a new spark ignition emergency engine as listed in 40 CFR §§60.4233(d) and (e) and 40 CFR Part 60 Subpart JJJJ, Table 1 by purchasing an engine certified according to the procedures specified in 40 CFR Part 60 Subpart JJJJ for the same model year.  
[40 CFR §60.4243(b)(1)]
- ii. The Permittee shall operate and maintain the engines to achieve the emission standards as required in 40 CFR §60.4233 over the entire life of the engine. [40 CFR §60.4234]
- iii. The Permittee shall operate and maintain each certified stationary SI internal combustion engine according to the manufacturer's emission related written instructions.  
[40 CFR §60.4243(a)(1)]
- iv. The Permittee may operate the emergency stationary RICE for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of the emergency engine beyond 100 hours per calendar year. [40 CFR §60.4243(d)(2)(i)]

#### **Note:**

- The Permittee must maintain compliance with these operating limitations in order to be considered an emergency engine and maintain exemption from other requirements of 40 CFR Part 60 Subpart JJJJ.
- The 100 hours and any additional approved time used for maintenance checks and readiness testing as described in Section III.D.4.a.iv of this Title V permit shall count towards the hours of operation in Section III.D.1.a of this Title V permit.

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

Record keeping specified in Section III.D.4.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*

- i. The Permittee shall comply with all record keeping requirements of the General Provisions in 40 CFR §§60.1 through 60.19, inclusive, as specified in 40 CFR Part 60 Subpart JJJJ, Table 3. [40 CFR §60.4246]
- ii. The Permittee shall keep records of maintenance conducted on each engine.  
[40 CFR §60.4245(a)(2)]
- iii. The Permittee shall keep documentation from the manufacturer certifying compliance with the emissions standards in Sections III.D.4.a.i of this Title V permit.

### Section III: Applicable Requirements and Compliance Demonstration

[40 CFR §60.4245(a)(3)]

- iv. The Permittee shall keep records of all notifications submitted to comply with 40 CFR Part 60 Subpart JJJJ and all documentation supporting any notification.  
[40 CFR §60.4245(a)(1)]

#### d. Reporting Requirements

The Permittee shall comply with all reporting requirements of the General Provisions in 40 CFR §§60.1 through 60.19, inclusive, as specified in 40 CFR Part 60 Subpart JJJJ, Table 3.  
[40 CFR §60.4246]

### E. GROUPED EMISSIONS UNIT 7 (GEU-7): Combustion Turbines with Duct Burners

**EU-600, 601, 602:** Three - 7 MW Solar Taurus Model 70 combustion turbines with 60 MMBtu/hr duct burners - Central Utility Plant

#### Classification:

- Operating under Permit Nos. 098-0056, 098-0061, 098-0062
- Subject to RCSA §22a-174-22e
- Subject to 40 CFR Part 60 Subparts Dc (duct burners) and GG (turbines)

#### 1. Fuel Type and Consumption, Sulfur Content in Fuel Oil and Natural Gas, Continuous Emission Monitoring Requirements

##### a. Limitation or Restriction

- i. Fuel Type: [P 098-0056, 098-0061, 098-0062]
  - (A) Combustion turbines: the Permittee shall only burn No. 2 fuel oil or natural gas.
  - (B) Duct burners: the Permittee shall only burn natural gas.
- ii. Maximum Fuel Consumption: [P 098-0056, 098-0061, 098-0062]
  - (A) Combustion turbines:
    - (1) No. 2 fuel oil: total of 2,781,900 gallons over any consecutive 12 month period for EU-600, EU-601 and EU-602, combined.
    - (2) Natural gas: total of 2,089.37 MMcf – [(0.079504 MMcf/hr) x (Operating Hours Firing Oil)] over any consecutive 12 month period for EU-600, EU-601 and EU-602 combined.
  - (B) Duct burners: total of 1,410.54 MMcf over any consecutive 12 month period for EU-600, EU-601 and EU-602, combined.
- iii. Sulfur Content in Fuel Oil and Natural Gas
  - (A) The sulfur content in the fuel shall not exceed 15 ppm by weight.  
[CGS §16a-21a, RCSA §22a-174-19(b)]

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

- (B) Combustion turbines and duct burners: natural gas: maximum sulfur content shall not exceed 20.0 grains/100 scf. [40 CFR §60.331, P 098-0056, 098-0061, 098-0062]
- iv. Continuous Emission Monitoring Requirements [P 098-0056, 098-0061, 098-0062]
  - (A) Combustion turbines:
    - (1) Operational Parameter: fuel flow to each turbine
    - (2) Averaging times: continuous
  - (B) Duct burners:
    - (1) Operational Parameter: fuel flow to each duct burner
    - (2) Averaging times: continuous

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

- i. The Permittee shall install fuel-metering devices to continuously monitor fuel flow to each turbine and duct burner. [P 098-0056, 098-0061, 098-0062]
- ii. The Permittee shall operate the turbine and duct burner using good combustion practices. [P 098-0056, 098-0061, 098-0062]
- iii. The Permittee shall comply with the requirements of RCSA §22a-174-4, Source Monitoring, Record Keeping and Reporting. [P 098-0056, 098-0061, 098-0062]

#### *c. Record Keeping Requirements*

- i. The Permittee shall keep records of annual fuel consumption for each turbine and each duct burner separately. Annual fuel consumption shall be based on any consecutive 12 month time period and shall be determined by adding (for each fuel) the current month's fuel usage to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P 098-0056, 098-0061, 098-0062]
- ii. The Permittee shall keep records of the fuel certification for each delivery of fuel from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel. [P 098-0056, 098-0061, 098-0062]
- iii. The Permittee shall keep records of the amount of natural gas combusted during each day in each duct burner. [40 CFR Part 60 Subpart Dc]
- iv. The Permittee shall keep records of a current valid purchase contract, tariff sheet, or transportation contract which demonstrates the maximum total sulfur content of the natural gas burned in the combustion turbines. [40 CFR Part 60 Subpart GG]



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

- v. The Permittee shall keep records on premises indicating continual compliance with all above conditions at all times and shall make them available upon request by the commissioner for the duration of P 098-0056, 098-0061, 098-0062, or for the previous five years, whichever is less. [P 098-0056, 098-0061, 098-0062]

#### *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. Hours of Operation**

#### *a. Limitation or Restriction*

Combustion turbines: No. 2 fuel oil: total of 4,500 hours over any consecutive 12 month period for EU-600, EU-601 and EU-602 combined. [P 098-0056, 098-0061, 098-0062]

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

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

#### *c. Record Keeping Requirements*

- i. The Permittee shall keep records of the annual operating hours of the combustion turbine for operations firing No. 2 fuel oil. Operating hours shall be recorded to the nearest 0.1 hour. The annual operating hours firing oil shall be based on any consecutive 12 month time period and shall be determined by adding the current month's operating hours firing oil to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P 098-0056, 098-0061, 098-0062]
- ii. The Permittee shall keep records on premises indicating continual compliance with all above conditions at all times and shall make them available upon request by the commissioner for the duration of P 098-0056, 098-0061, 098-0062, or for the previous five years, whichever is less. [P 098-0056, 098-0061, 098-0062]

#### *d. Reporting Requirements*

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

## **3. PM/PM<sub>10</sub>, SO<sub>x</sub>, VOC, CO, Pb, Ammonia**

#### *a. Limitation or Restriction*

The Permittee shall not exceed the emission limits stated herein at any time, as determined in accordance with the applicable limitations or restrictions in Section III.E.1 of this Title V permit or as specified in an approved stack test protocol, except during periods of start-up,

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

shutdown, and/or malfunction. [P 098-0056, 098-0061, 098-0062]

i. PM/PM<sub>10</sub>: [P 098-0056, 098-0061, 098-0062]

- (A) Natural gas: combustion turbines: Emissions of PM/PM<sub>10</sub> shall not exceed 2.10 lb/hr for each combustion turbine.
- (B) No. 2 fuel oil: combustion turbines:
  - (1) Emissions of PM/PM<sub>10</sub> shall not exceed 3.00 lb/hr for each combustion turbine.
  - (2) Emissions of PM/PM<sub>10</sub> shall not exceed 6.75 TPY for EU-600, EU-601 and EU-602 combined.
- (C) Natural gas: duct burners: Emissions of PM/PM<sub>10</sub> shall not exceed 0.44 lb/hr for each duct burner.
- (D) Total Allowable Emissions for three combustion turbines and three duct burners: Emissions of PM/PM<sub>10</sub> shall not exceed 34.98 TPY for EU-600, EU-601 and EU-602.

ii. SO<sub>x</sub>: [P 098-0056, 098-0061, 098-0062]

- (A) Natural gas: combustion turbines: Emissions of SO<sub>x</sub> shall not exceed 0.32 lb/hr for each combustion turbine.
- (B) No. 2 fuel oil: combustion turbines:
  - (1) Emissions of SO<sub>x</sub> shall not exceed 4.32 lb/hr for each combustion turbine.
  - (2) Emissions of SO<sub>x</sub> shall not exceed 9.73 TPY for EU-600, EU-601 and EU-602 combined.
- (C) Natural gas: duct burners: Emissions of SO<sub>x</sub> shall not exceed 0.04 lb/hr for each duct burner.
- (D) Total Allowable Emissions for three combustion turbines and three duct burners: Emissions of SO<sub>x</sub> shall not exceed 13.17 TPY for EU-600, EU-601 and EU-602.

iii. VOC: [P 098-0056, 098-0061, 098-0062]

- (A) Natural gas: combustion turbines: Emissions of VOC shall not exceed 0.33 lb/hr for each combustion turbine.
- (B) No. 2 fuel oil: combustion turbines:
  - (1) Emissions of VOC shall not exceed 5.41 lb/hr for each combustion turbine.
  - (2) Emissions of VOC shall not exceed 12.18 TPY for EU-600, EU-601 and EU-602 combined.

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

- (C) Natural gas: duct burners: Emissions of VOC shall not exceed 0.18 lb/hr for each duct burner.
  - (D) Total Allowable Emissions for three combustion turbines and three duct burners: Emissions of VOC shall not exceed 17.38 TPY for EU-600, EU-601 and EU-602.
- iv. CO: [P 098-0056, 098-0061, 098-0062]
- (A) Natural gas: combustion turbines: Emissions of CO shall not exceed 2.08 lb/hr and 10 ppmvd at 15% O<sub>2</sub> for each combustion turbine.
  - (B) No. 2 fuel oil: combustion turbines:
    - (1) Emissions of CO while operating at 80-100% load shall not exceed 10 ppmvd at 15% O<sub>2</sub> for each combustion turbine.
    - (2) Emissions of CO while operating at 55-79.9% load shall not exceed 20 ppmvd at 15% O<sub>2</sub> for each combustion turbine.
    - (3) Emissions of CO shall not exceed 3.44 lb/hr for each combustion turbine.
    - (4) Emissions of CO shall not exceed 7.73 TPY for EU-600, EU-601 and EU-602 combined.
  - (C) Natural gas: duct burners: Emissions of CO shall not exceed 0.98 lb/hr for each duct burner.
  - (D) Total Allowable Emissions for three combustion turbines and three duct burners: Emissions of CO shall not exceed 39.03 TPY for EU-600, EU-601 and EU-602.
- v. Pb: [P 098-0056, 098-0061, 098-0062]
- (A) No. 2 fuel oil: combustion turbines:
    - (1) Emissions of Pb shall not exceed 1.20E-03 lb/hr for each combustion turbine.
    - (2) Emissions of Pb shall not exceed 2.70E-03 TPY for EU-600, EU-601 and EU-602 combined.
  - (B) Natural gas: duct burners: Emissions of Pb shall not exceed 2.92E-05 lb/hr for each duct burner.
  - (C) Total Allowable Emissions for three combustion turbines and three duct burners: Emissions of Pb shall not exceed 3.05E-03 TPY for EU-600, EU-601 and EU-602 combined.
- vi. Ammonia: [P 098-0056, 098-0061, 098-0062]  
Emissions of Ammonia shall not exceed 10 ppmvd at 15% O<sub>2</sub>.
- vii. The Permittee shall maintain a current EO&M Plan on-site and shall update it on a yearly basis and kept on site. The EO&M Plan shall apply to all equipment covered by Permit

### Section III: Applicable Requirements and Compliance Demonstration

Nos. 098-0056, 098-0061 and 098-0062 and shall include, but not be limited to, consideration of: maintenance of spare parts, start-up/shut-down provisions, procedures, protocols, and methodologies for demonstrating continuous compliance with applicable emission limitations. Any revision to this plan which conflicts or may conflict with any condition of Permit Nos. 098-0056, 098-0061 and 098-0062 shall be reviewed by the commissioner and shall receive the commissioner's written approval prior to such revision. [P 098-0056, 098-0061, 098-0062]

- viii. The Permittee shall demonstrate compliance with the allowable emission limits in this Title V permit by calculating the emission rates using emission factors from the following sources: [P 098-0056, 098-0061, 098-0062]
- (A) Duct Burner Emissions: AP-42 – 5<sup>th</sup> Edition (7/98)
    - (1) CO: 84 lb/MMcf – Section 1.4, Table 1.4-1
    - (2) VOC: 5.5 lb/MMcf – Section 1.4, Table 1.4-2
    - (3) SO<sub>x</sub>: 0.6 lb/MMcf – Section 1.4, Table 1.4-2
    - (4) PM/PM<sub>10</sub>: 7.6 lb/MMcf – Section 1.4, Table 1.4-2
  - (B) Uncontrolled Turbine Emissions (Natural Gas) @ 50-100% load: Solar Turbines
    - (1) CO: 10.40 lb/hr, 50 ppmvd@15% O<sub>2</sub>
    - (2) VOC: 0.60 lb/hr, 25 ppmvd@15% O<sub>2</sub>
    - (3) SO<sub>x</sub>: 3.4E-3 lb/MMBtu – AP42 Section 3.1, Table 3.1-2a, 5<sup>th</sup> Edition (4/00)
    - (4) PM/PM<sub>10</sub>: 2.10 lb/hr
  - (C) Uncontrolled Turbine Emissions (No. 2 Fuel Oil) @ 55-79.9% load: Solar Turbines
    - (1) CO: 17.18 lb/hr, 100 ppmvd@15% O<sub>2</sub>
    - (2) VOC: 9.84 lb/hr, 100 ppmvd@15% O<sub>2</sub>
    - (3) SO<sub>x</sub>: 0.0505 lb/MMBtu – AP42 Section 3.1, Table 3.1-2a, 5<sup>th</sup> Edition (4/00)
    - (4) PM/PM<sub>10</sub>: 2.55 lb/hr
    - (5) Pb: 1.4E-05 lb/MMBtu – AP42 Section 3.1, Table 3.1-5, 5<sup>th</sup> Edition (4/00)
  - (D) Uncontrolled Turbine Emissions (No. 2 Fuel Oil) @ 80-100% load: Solar Turbines
    - (1) CO: 10.13 lb/hr, 96 ppmvd@15% O<sub>2</sub>
    - (2) VOC: 2.90 lb/hr, 25 ppmvd@15% O<sub>2</sub>
    - (3) SO<sub>x</sub>: 0.0505 lb/MMBtu – AP42 Section 3.1, Table 3.1-2a, 5<sup>th</sup> Edition (4/00)
    - (4) PM/PM<sub>10</sub>: 3.00 lb/hr
    - (5) Pb: 1.4E-05 lb/MMBtu – AP42 Section 3.1, Table 3.1-5, 5<sup>th</sup> Edition (4/00)

The above statement shall not preclude the commissioner from requiring other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulations.

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

- i. The Permittee shall conduct recurrent stack testing for CO, PM<sub>10</sub> and Ammonia within five years from the previous stack test to demonstrate compliance with the limits in Section III.E.3.a of this Title V permit. [P 098-0056, 098-0061, 098-0062]
- ii. The Permittee shall conduct stack testing for all fuels and for combined operations of each turbine and duct burner to show compliance with the limits in Section III.E of this Title V permit. [P 098-0056, 098-0061, 098-0062]

### Section III: Applicable Requirements and Compliance Demonstration

#### c. Record Keeping Requirements

- i. The Permittee shall keep records of PM/PM<sub>10</sub>, SO<sub>x</sub>, VOC, CO, Pb, Ammonia and Formaldehyde annual emissions. Annual emissions shall be based on any consecutive 12 month time period and shall be determined by adding the current month's emissions to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P 098-0056, 098-0061, 098-0062]
- ii. The Permittee shall keep records on premises indicating continual compliance with all above conditions at all times and shall make them available upon request by the commissioner for the duration of P 098-0056, 098-0061, 098-0062, or for the previous five years, whichever is less. [P 098-0056, 098-0061, 098-0062]

#### 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

The Permittee shall not exceed the emission limits stated herein at any time, as determined in accordance with the applicable limitations or restrictions in Section III.E.1 of this Title V permit or as specified in an approved stack test protocol, except during periods of start-up, shutdown, and/or malfunction. [P 098-0056, 098-0061, 098-0062]

- i. Natural gas: combustion turbine: Emissions of NO<sub>x</sub> shall not exceed 0.85 lb/hr and 2.5 ppmvd at 15% O<sub>2</sub> for each combustion turbine. [P 098-0056, 098-0061, 098-0062]
- ii. No. 2 fuel oil: combustion turbines: [P 098-0056, 098-0061, 098-0062]
  - (A) Emissions of NO<sub>x</sub> operating at 80-100% load shall not exceed 9.6 ppmvd at 15% O<sub>2</sub> for each combustion turbine.
  - (B) Emissions of NO<sub>x</sub> operating at 55-79.9% load shall not exceed 12 ppmvd at 15% O<sub>2</sub> for each combustion turbine.
  - (C) Emissions of NO<sub>x</sub> shall not exceed 3.25 lb/hr for each combustion turbine.
  - (D) Emissions of NO<sub>x</sub> shall not exceed 7.31 TPY for EU-600, EU-601 and EU-602 combined.
- iii. Natural gas: duct burners: Emissions of NO<sub>x</sub> shall not exceed 0.58 lb/hr for each duct burner. [P 098-0056, 098-0061, 098-0062]
- iv. Total Allowable Emissions for three combustion turbines and three duct burners: Emissions of NO<sub>x</sub> shall not exceed 22.35 TPY for EU-600, EU-601 and EU-602. [P 098-0056, 098-0061, 098-0062]

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

- v. The Permittee shall not cause or allow an emission unit to exceed the following:  
[RCSA §§22a-174-22e(d)(5)(A) and (C)]
  - (A) Phase I (Beginning June 1, 2018 and ending May 31, 2023)  
Natural Gas: 42 ppmvd  
No. 2 Fuel Oil: 65 ppmvd
  - (B) Phase II (Beginning June 1, 2023 and continuing thereafter)  
Natural Gas: 25 ppmvd  
No. 2 Fuel Oil: 42 ppmvd
- vi. The Permittee of an emission unit shall not cause or allow an emission unit to exceed the applicable emissions limitations specified in Section III.E.4.a.iv.(B) in this Title V permit unless the Permittee undertakes one of the following actions:  
[RCSA §§22a-174-22e(d)(1)(A), (B) and (C)]
  - (A) Implements an alternative compliance mechanism as provided in RCSA §22a-174-22e(g);
  - (B) Operates under a case-by-case RACT determination as provided in RCSA §22a-174-22e(h);
  - (C) Ceases operation as provided in RCSA §22a-174-22e(f).

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

- i. The Permittee shall conduct recurrent stack testing for NO<sub>x</sub> within five years from the previous stack test to show compliance with the limits in Section III.E.4.a of this Title V permit. [P 098-0056, 098-0061, 098-0062]
- ii. The Permittee shall conduct stack testing for all fuels and for combined operations of the turbine and duct burner to show compliance with the limits in Section III.E of this Title V permit. [P 098-0056, 098-0061, 098-0062]
- iii. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations.  
[P 098-0056, 098-0061, 098-0062]
- iv. The Permittee shall comply with the requirements of RCSA §22a-174-4, Source Monitoring, Record Keeping and Reporting. [P 098-0056, 098-0061, 098-0062]
- v. The Permittee shall conduct an initial NO<sub>x</sub> emissions test on each emission on a date during Phase I that is no more than 63 calendar month following the date of the last emission test performed pursuant to former RCSA §22a-174-22(k).  
[RCSA §22a-174-22e(l)(4)]
- vi. The Permittee of an existing emission unit subject to RCSA §22a-174-22e shall conduct the emission test following the initial emissions test on a date after May 31, 2023 and no later than June 1, 2025. Subsequently, the Permittee shall conduct emission tests within every 63 calendar months following the date the previous emission test was conducted or the date the previous emission test was required to be conducted, whichever is earlier.  
[RCSA §22a-174-22e(l)(5)]

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

#### *c. Record Keeping Requirements*

- i. The Permittee shall keep records of NO<sub>x</sub> annual emissions. Annual emissions shall be based on any consecutive 12 month time period and shall be determined by adding the current month's emissions to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.  
[P 098-0056, 098-0061, 098-0062]
- ii. The Permittee shall demonstrate compliance with emission limits for the combustion turbines and duct burners by calculating the emission rates using emission factors provided by the combustion turbine manufacturer or from AP-42.  
[P 098-0056, 098-0061, 098-0062]
- iii. The Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction of the operation of the combustion turbines or duct burners. The Permittee shall also maintain records of the malfunction of any air pollution control equipment or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR Part 60 Subpart A]
- iv. 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)]
- v. The Permittee shall make and keep copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(F)]
- vi. The Permittee shall keep records on premises indicating continual compliance at all times and shall make them available upon request by the commissioner for the duration of Permit 098-0056, 098-0061, 098-0062, or for the previous five years, whichever is less.  
[P 098-0056, 098-0061, 098-0062, RCSA §22a-174-22e(j)(1)]

#### *d. Reporting Requirements*

- i. The Permittee shall submit and maintain an updated standby plan pursuant to RCSA §22a-174-6, "Air Pollution" emergency episode procedures. [P 098-0056, 098-0061, 098-0062]
- ii. The Permittee shall submit a written report of the results of stack testing conducted in accordance with Section III.E.4.b of this Title V permit to the commissioner not later than 60 days after completion of the testing. [RCSA §22a-174-22e(k)(1)]
- iii. The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

## **5. Control Equipment**

#### *a. Limitation or Restriction*

The Permittee shall use Selective Catalytic Reduction, Dry Low NO<sub>x</sub> Combustor and Oxidation Catalyst to achieve emissions limits in Section III.E of this Title V permit.  
[P 098-0056, 098-0061, 098-0062]

### Section III: Applicable Requirements and Compliance Demonstration

*b. Monitoring and Testing Requirements*

The Permittee shall comply with the requirements of RCSA §22a-174-7. [P 098-0056, 098-0061, 098-0062]

*c. Record Keeping Requirements*

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.E.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)]

**F. GROUPED EMISSIONS UNIT 8 (GEU-8): Small Boilers and Heating Equipment**

*Small boilers and heating equipment operating under collateral conditions in P 098-0056, 098-0061, 098-0062*

**Subgroup 1:** Nine Laars RHEOS+ Model 1600 and three Laars RHEOS+ Model 2000 natural gas fired boilers or equivalent – Hilltop Apartments

**Subgroup 2:** All natural gas fired heating equipment – Charter Oak Apartments and Suites, Husky Village, Hilltop Apartments Community Center (2353 Alumni Drive), and Hilltop Apartments Building No. 22 (22 Husky Circle)

**Subgroup 3:** All natural gas fired heating equipment – Hilltop Suites

*Small boilers and heating equipment operating under collateral conditions in P 098-0026*

**Subgroup 4:** All natural gas fired heating equipment – Next Generation Connecticut Hall

**Subgroup 5:** All natural gas fired heating equipment – Northwood Apartments

**Subgroup 6:** All natural gas fired heating equipment – Innovation Partnership Building

**1. Fuel Consumption**

*a. Limitation or Restriction*

- i. Subgroup 1: Total natural gas consumption over any consecutive 12 month period shall not exceed 536,112 ccf for the 12 Laars boilers or equivalent located at Hilltop Apartments, combined. [P 098-0056, 098-0061 and 098-0062]
- ii. Subgroup 2: Total natural gas consumption over any consecutive 12 month period shall not exceed 689,482 ccf for all natural gas fired heating equipment located at Charter Oak Apartments and Suites, Husky Village, Hilltop Apartments Community Center and Hilltop Apartments Building No. 22, combined. [P 098-0056, 098-0061 and 098-0062]
- iii. Subgroup 3: Total natural gas consumption over any consecutive 12 month period shall not exceed 142,700 ccf for all natural gas fired heating equipment located at Hilltop Suites, combined. [P 098-0056, 098-0061 and 098-0062]



### Section III: Applicable Requirements and Compliance Demonstration

- iv. Subgroup 4: Total natural gas consumption over any consecutive 12 month period shall not exceed 28,905,372 ft<sup>3</sup> for all natural gas fired heating equipment located at the Next Generation Connecticut Hall. [P 098-0026]
- v. Subgroup 5: Total natural gas consumption over any consecutive 12 month period shall not exceed 39,104,640 ft<sup>3</sup> for all natural gas fired heating equipment located at the Northwood Apartments. [P 098-0026]
- vi. Subgroup 6: Total natural gas consumption over any consecutive 12 month period shall not exceed 70,693,200 ft<sup>3</sup> for all natural gas fired heating equipment located at the Innovation Partnership Building. [P 098-0026]

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

The Permittee shall monitor total monthly and total consecutive 12 month fuel consumption for each subgroup listed above. [P 098-0056, 098-0061, 098-0062, 098-0026]

#### c. *Record Keeping Requirements*

- i. The Permittee shall keep records of the total monthly and total annual fuel consumption for the equipment at each subgroup listed above. These records shall be obtained from monthly utility billing records. Annual fuel consumption shall be based on the fuel consumption determined from any 12 consecutive months of billing records and shall be calculated by adding the fuel consumption from the current month's billing records to the fuel consumption obtained from the previous 11 months of billing records.

**Subgroups 1, 2 and 3:** The Permittee shall make these calculations within 30 days after the date that each month's billing records become available. [P 098-0056, 098-0061, 098-0062]

**Subgroups 4, 5 and 6:** The Permittee shall make these calculations within 30 days of the end of the previous month. [P 098-0026]

- ii. The Permittee shall keep records on the premises indicating continual compliance with the applicable fuel consumption limits at all times and shall make them available upon request by the commissioner for the duration of Permit 098-0056, 098-0061, 098-0062 and 098-0026, or for the previous five years, whichever is less. [P 098-0056, 098-0061, 098-0062, 098-0026]

#### 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. GROUPED EMISSIONS UNIT 9 (GEU-9): Natural Gas Fired Boilers

- EU-442:** 6.65 MMBtu/hr Weil-McLain No. 1 – natural gas fired boiler – Putnam Refectory
- EU-443:** 6.65 MMBtu/hr Weil-McLain No. 2 – natural gas fired boiler – Putnam Refectory

### Section III: Applicable Requirements and Compliance Demonstration

#### Classification:

- Subject to RCSA §22a-174-22e
- *Not subject to RCSA §22a-174-3a*

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

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

- i. The Permittee shall not cause or allow EU-442 or EU-443 to exceed the following emission limitations: [RCSA §§22a-174-22e(d)(3)(A) and (C)]

(A) Phase 1: Effective June 1, 2018  
Natural gas: 0.20 lb/MMBtu

(B) Phase 2: Effective June 1, 2023  
Natural gas: 0.20 lb/MMBtu

- ii. Tune-up requirements:

The Permittee shall conduct an inspection and tune-up of each emission unit a minimum of once per calendar year beginning with year 2018. Each subsequent annual tune-up shall be performed no earlier than 180 days after the previous tune-up conducted under this section. The inspection and tune-up of the emission unit shall be conducted according to the manufacturer's recommended procedures, or, if the manufacturer's recommendations are no longer available, according to best available practices. [RCSA §22a-174-22e(i)(1)]

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

- i. 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 RCSA §22a-174-22(k). [RCSA §22a-174-22e(1)(4)]
- ii. The Permittee shall conduct the emission test following the initial emissions test on a date after May 31, 2023 and no later than June 1, 2025. Subsequently, the Permittee shall conduct emission tests within every 63 calendar months following the date the previous emission test was conducted or the date the previous emission test was required to be conducted, whichever is earlier. [RCSA §22a-174-22e(1)(5)]
- iii. The Permittee shall conduct stack testing in accordance with RCSA §22a-174-22e(1). [RCSA §22a-174-22e]

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

- i. 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)]
- ii. The Permittee shall make and keep records of the dates and times of all emission testing required by RCSA §22a-174-22e, the persons performing the measurements, the testing methods used, the operating conditions at the time of testing, and the results of such testing. [RCSA §22a-174-22e(j)(2)(C)]

### Section III: Applicable Requirements and Compliance Demonstration

- iii. The Permittee shall make and keep records for each tune-up, for each emission unit in accordance with RCSA §22a-174-22e(j)(2)(E). [RCSA §22a-174-22e(j)(2)(E)]
- iv. The Permittee shall make and keep copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e and 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)(F) and 22a-174-22e(j)(2)(G)]

#### d. Reporting Requirements

The Permittee shall submit a written report of the results of the stack testing to the commissioner not more than 60 days after the completion of emission tests.  
[RCSA §22a-174-22e(k)(1)]

### H. GROUPED EMISSIONS UNIT 10 (GEU-10): Emergency Engines

- EU-1:** 3.88 MMBtu/hr (568 hp) Kohler No. 2 fuel oil fired emergency engine – Beach Building
- EU-2:** 6.65 MMBtu/hr (947 hp) Kohler No. 2 fuel oil fired emergency engine – School of Psychology
- EU-9:** 4.6 MMBtu/hr (643 hp) Kohler Diesel or No. 2 fuel oil fired emergency engine – Fenton River Well Field
- EU-63:** 4.7 MMBtu/hr (838 hp) Onan Diesel fired emergency engine – Water Pollution Control Facility

#### Classification:

- Emergency engines operating under NSR Permit Nos. 098-0011, 098-0012, 098-0019, 098-0054
- Subject to RCSA §22a-174-22e
- Subject to RCSA §40 CFR Part 63 Subpart ZZZZ

### 1. Maximum Hours of Operation

#### a. Limitation or Restriction

- i. EU-1, 2, 9: The Permittee shall not exceed 170 hours of operation per engine over any consecutive 12 month period. [CP/OP 098-0011, 098-0012, 098-0019]
- ii. EU-63: The Permittee shall not exceed 500 hours of operation over any consecutive 12 month period. [CP/OP 098-0054]
- iii. The Permittee shall operate each engine as an emergency engine as defined in RCSA 22a-174-22e(a)(13). [RCSA §§22a-174-22e and 22a-174-33(j)(1)(K)(ii)]

#### b. Monitoring and Testing Requirements

The Permittee shall monitor annual operating hours for each engine.  
[CP/OP 098-0011, 098-0012, 098-0019, 098-0054]

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

#### *c. Record Keeping Requirements*

- i. The Permittee shall keep records of monthly and annual operating hours for each engine. Annual operating hours shall be based on any 12 consecutive month period and shall be determined by adding the current month's operating hours to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [CP/OP 098-0011, 098-0012, 098-0019, 098-0054]
- ii. The Permittee shall keep records on premises indicating continual compliance with all above conditions at all times and shall make them available upon request by the commissioner for the duration of Permit Nos. 098-0011, 098-0012, 098-0019 and 098-0054, or for the previous five years, whichever is less. [CP/OP 098-0011, 098-0012, 098-0019, 098-0054]

#### *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 Type and Fuel Sulfur Content**

#### *a. Limitation or Restriction*

- i. Fuel Type
  - (A) EU-1, 2: The Permittee shall only burn No. 2 fuel oil in each emergency engine. [CP/OP 098-0011, 098-0012]
  - (B) EU-9: The Permittee shall only burn No. 2 fuel oil or diesel fuel oil. [CP/OP 098-0019]
  - (C) EU-63: The Permittee shall only burn diesel fuel. [CP/OP 098-0054]
- ii. Fuel Sulfur Content

EU-1, 9 and EU-2, 63: The sulfur content in the fuel shall not exceed 15 ppm by weight. [CGS §16a-21a, RCSA §22a-174-19(b)]

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

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

#### *c. Record Keeping Requirements*

- i. The Permittee shall keep records of the fuel certification for each delivery of fuel to each engine 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

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

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. [CP/OP 098-0012, 098-0054, RCSA §22a-174-33]

- ii. The Permittee shall keep records on premises indicating continual compliance with all above conditions at all times and shall make them available upon request by the commissioner for the duration of Permit Nos. 098-0011, 098-0012, 098-0019 and 098-0054, or for the previous five years, whichever is less.  
[CP/OP 098-0011, 098-0012, 098-0019, 098-0054]

#### *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. TSP/PM<sub>10</sub>, SO<sub>x</sub>, NO<sub>x</sub>, VOC, CO**

#### *a. Limitation or Restriction*

- i. The Permittee shall operate each engine as an emergency engine as defined in RCSA §22a-174-22e(a)(13). [RCSA §§22a-174-22e and 22a-174-33(j)(1)(K)(ii)]
- ii. TSP/PM<sub>10</sub>:
  - (A) EU-1: emissions shall not exceed 0.10 lb/MMBtu, 0.10 TPY. [CP/OP 098-0011]
  - (B) EU-2: emissions shall not exceed 0.10 lb/MMBtu, 0.06 TPY. [CP/OP 098-0012]
  - (C) EU-9: emissions shall not exceed 0.10 lb/MMBtu, 0.04 TPY. [CP/OP 098-0019]
  - (D) EU-63: emissions shall not exceed 0.10 lb/MMBtu, 0.12 TPY. [CP/OP 098-0054]
- iii. SO<sub>x</sub>:
  - (A) EU-1: emissions shall not exceed 0.30 lb/MMBtu, 0.10 TPY. [CP/OP 098-0011]
  - (B) EU-2: emissions shall not exceed 0.05 lb/MMBtu, 0.03 TPY. [CP/OP 098-0012]
  - (C) EU-9: emissions shall not exceed 0.30 lb/MMBtu, 0.12 TPY. [CP/OP 098-0019]
  - (D) EU-63: emissions shall not exceed 0.05 lb/MMBtu, 0.06 TPY. [CP/OP 098-0054]
- iv. NO<sub>x</sub>:
  - (A) EU-1: emissions shall not exceed 4.41 lb/MMBtu, 1.45 TPY. [CP/OP 098-0011]
  - (B) EU-2: emissions shall not exceed 3.20 lb/MMBtu, 1.81 TPY. [CP/OP 098-0012]
  - (C) EU-9: emissions shall not exceed 3.20 lb/MMBtu, 1.25 TPY. [CP/OP 098-0019]
  - (D) EU-63: emissions shall not exceed 3.20 lb/MMBtu, 3.76 TPY. [CP/OP 098-0054]

### Section III: Applicable Requirements and Compliance Demonstration

v. VOC:

- (A) EU-1: emissions shall not exceed 0.36 lb/MMBtu, 0.12 TPY. [CP/OP 098-0011]
- (B) EU-2: emissions shall not exceed 0.09 lb/MMBtu, 0.05 TPY. [CP/OP 098-0012]
- (C) EU-9: emissions shall not exceed 0.09 lb/MMBtu, 0.04 TPY. [CP/OP 098-0019]
- (D) EU-63: emissions shall not exceed 0.09 lb/MMBtu, 0.11 TPY. [CP/OP 098-0054]

vi. CO:

- (A) EU-1: emissions shall not exceed 0.95 lb/MMBtu, 0.31 TPY. [CP/OP 098-0011]
- (B) EU-2: emissions shall not exceed 0.85 lb/MMBtu, 0.48 TPY. [CP/OP 098-0012]
- (C) EU-9: emissions shall not exceed 0.85 lb/MMBtu, 0.33 TPY. [CP/OP 098-0019]
- (D) EU-63: emissions shall not exceed 0.85 lb/MMBtu, 1.00 TPY. [CP/OP 098-0054]

b. *Monitoring and Testing Requirements*

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

c. *Record Keeping Requirements*

- i. The Permittee shall calculate emissions using emission factors from AP-42 and SOx: CT DEEP Memorandum 05/23/1991. [CP/OP 098-0011, 098-0012, 098-0019, 098-0054]
- ii. The Permittee shall keep records on premises indicating continual compliance with all above conditions at all times and shall make them available upon request by the commissioner for the duration of Permit Nos. 098-0011, 098-0012, 098-0019 and 098-0054, or for the previous five years, whichever is less. [CP/OP 098-0011, 098-0012, 098-0019, 098-0054]

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. **Operational Conditions and Non-Emergency Operation**

a. *Limitation or Restriction*

**Note:**

RCSA §22a-174-22 was repealed on June 1, 2018 and RCSA §22a-174-22e became effective on December 22, 2016 which made the related language in the existing NSR permits obsolete. The Permittee will not be required to modify the NSR permits at the time of this Title V renewal (Application No. 201806541).

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

- i. The Permittee of each emergency engine shall not operate the emergency engine for routine, scheduled testing or maintenance on any day for which the commissioner has forecast that ozone levels will be “moderate to unhealthy for sensitive groups” or greater. If, subsequent to the initial forecast of “moderate to unhealthy for sensitive groups” or greater, the forecast is revised to “moderate” or lower, the owner or operator is no longer prohibited from operating the engine for routine, scheduled testing or maintenance for the remainder of that day. An owner or operator of an emergency engine may rely on an ozone forecast of “moderate” or lower obtained after 3 p.m. on the preceding day. Subsequent changes to the ozone forecast after 3 p.m. that forecast ozone levels of “moderate to unhealthy for sensitive groups” or greater shall not obligate the owner or operator to refrain from operation of the emergency engine at the facility on the following day. The commissioner may exempt, by permit or order, the Permittee of an emergency engine from this subdivision 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)]
- ii. The Permittee shall operate each engine as an emergency engine as defined in RCSA 22a-174-22e(a)(13). [RCSA §§22a-174-22e and 22a-174-33(j)(1)(K)(ii)]

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

Record keeping specified in Section III.H.4.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) and 22a-174-22e(c)(5)]

#### *c. Record Keeping Requirements*

The Permittee shall retain all records and reports produced pursuant to this section 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) and 22a-174-33(j)(1)(K)(ii)]

- i. Daily records of operating hours of each engine, identifying the operating hours of emergency and non-emergency use. [CP/OP 098-0011, 098-0012, 098-0019, 098-0054]
- ii. Records of all tune-ups, repairs, replacement of parts and other maintenance. [CP/OP 098-0011, 098-0012, 098-0019, 098-0054]
- iii. The date and work performed for repairs, replacement of parts and other maintenance. [RCSA §22a-174-22e(j)(2)(B)]
- iv. Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(F)]
- v. 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 the receipt of notice from the commissioner or by such other date specified

### Section III: Applicable Requirements and Compliance Demonstration

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

#### 5. 40 CFR Part 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

##### Classification:

- Engine Category: Institutional Emergency
- At the time of this Title V renewal (Application No. 201806541), each unit is an Existing Stationary Engine located at an Area Source of HAPs, constructed before June 12, 2006. The emergency engines meet the definition of Emergency Stationary RICE in 40 CFR §63.6675. The engines operate according to the provisions of 40 CFR §63.6640(f) and are not contractually obligated to be used in Emergency Demand Response (EDR) or for local reliability criteria per 40 CFR §63.6585(f).
- *The Permittee should re-evaluate the requirements of 40 CFR Part 63 Subpart ZZZZ if any of the above conditions change.*

##### a. Limitation or Restriction

The Permittee may operate the emergency stationary RICE for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of the emergency engine beyond 100 hours per calendar year. [40 CFR §63.6640(f)(2)]

##### Note:

- The Permittee must maintain compliance with these operating limitations in order to be considered an emergency engine and maintain exemption from other requirements of 40 CFR Part 63 Subpart ZZZZ.
- The 100 hours and any additional approved time used for maintenance checks and readiness testing as described in Section III.H.5.a of this Title V permit shall count towards the hours of operation in Sections III.H.1.a.i and ii of this Title V permit.

##### b. Monitoring and Testing Requirements

Record keeping specified in Section III.H.5.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 must keep records of the operation of the engine in emergency and non-emergency service through the non-resettable hour meter. The Permittee must record the time of operation of the engine and the reason the engine was in operation during that time.  
[40 CFR §63.6655(f)]



### 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)]

#### I. GROUPED EMISSIONS UNIT 11 (GEU-11): Emergency Engines

**EU-5:** 1.55 MMBtu/hr (250 hp) Kohler No. 2 fuel oil fired emergency engine – Biobehavioral Building No. 4 Annex

**EU-8:** 2.40 MMBtu/hr (335 hp) Cummins No. 2 fuel oil fired emergency engine – Gampel Pavillion

#### Classification:

- Emergency engines operating under NSR Permit Nos. 098-0015, 098-0018
- Subject to 40 CFR Part 63 Subpart ZZZZ
- *Not subject to RCSA §22a-174-22e*

#### 1. Maximum Hours of Operation

##### a. Limitation or Restriction

- The Permittee shall not operate each emergency engine for more than 170 hours over any consecutive 12 month period. [CP/OP 098-0015, 098-0018]
- The Permittee shall operate each engine as an emergency engine as defined in RCSA §22a-174-22e(a)(13). [RCSA §§22a-174-22e(a) and 22a-174-33(j)(1)(K)(ii)]

##### b. Monitoring and Testing Requirements

The Permittee shall monitor monthly and annual operating hours. [CP/OP 098-0015, 098-0018]

##### c. Record Keeping Requirements

- The Permittee shall keep records of monthly and annual operating hours for each engine. Annual operating hours shall be based on any 12 consecutive month period and shall be determined by adding the current month's operating hours to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [CP/OP 098-0015, 098-0018]
- The Permittee shall keep records on premises indicating continual compliance with the permit at all times and shall make them available upon request by the commissioner for the duration of Permit Nos. 098-0015 and 098-0018, or the previous five years, whichever is less. [CP/OP 098-0015, 098-0018]

##### d. Reporting Requirements

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

### 2. Fuel Type and Fuel Sulfur Content

#### a. Limitation or Restriction

- i. The Permittee shall only burn No. 2 fuel oil. [CP/OP 098-0015, 098-0018]
- ii. The sulfur content in the fuel shall not exceed 15 ppm by weight. [CGS §16a-21a, RCSA §22a-174-19(b)]

#### b. Monitoring and Testing Requirements

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

#### c. Record Keeping Requirements

- i. The Permittee shall keep records of the fuel certification for each delivery of fuel from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel. [RCSA §22a-174-4(d)(1)]
- ii. The Permittee shall keep records on premises indicating continual compliance with the conditions of the permit at all times and shall make them available upon request by the commissioner for the duration of Permit Nos. 098-0015 and 098-0018, or for the previous five years, whichever is less. [CP/OP 098-0015, 098-0018]

#### d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of the 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. TSP/PM<sub>10</sub>, SO<sub>x</sub>, NO<sub>x</sub>, VOC and CO

#### a. Limitation or Restriction

- i. TSP/PM<sub>10</sub>:
  - (A) EU-5: emissions shall not exceed 0.10 lb/MMBtu, 0.04 TPY. [CP/OP 098-0015]
  - (B) EU-8: emissions shall not exceed 0.10 lb/MMBtu, 0.06 TPY. [CP/OP 098-0018]
- ii. SO<sub>x</sub>:
  - (A) EU-5: emissions shall not exceed 0.30 lb/MMBtu, 0.04 TPY. [CP/OP 098-0015]
  - (B) EU-8: emissions shall not exceed 0.30 lb/MMBtu, 0.06 TPY. [CP/OP 098-0018]

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

iii. NO<sub>x</sub>:

(A) EU-5: emissions shall not exceed 4.41 lb/MMBtu, 0.58 TPY. [CP/OP 098-0015]

(B) EU-8: emissions shall not exceed 4.41 lb/MMBtu, 0.90 TPY. [CP/OP 098-0018]

iv. VOC:

(A) EU-5: emissions shall not exceed 0.36 lb/MMBtu, 0.05 TPY. [CP/OP 098-0015]

(B) EU-8: emissions shall not exceed 0.36 lb/MMBtu, 0.07 TPY. [CP/OP 098-0018]

v. CO:

(A) EU-5: emissions shall not exceed 0.95 lb/MMBtu, 0.13 TPY. [CP/OP 098-0015]

(B) EU-8: emissions shall not exceed 0.95 lb/MMBtu, 0.19 TPY. [CP/OP 098-0018]

*b. Monitoring and Testing Requirements*

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

*c. Record Keeping Requirements*

- i. The Permittee shall calculate emissions using emission factors from AP-42 and SO<sub>x</sub>: CT DEEP Memorandum 05/23/1991. [CP/OP 098-0015, 098-0018]
- ii. The Permittee shall keep records on the premises indicating continual compliance with all above conditions at all times and shall make them available upon request by the commissioner for the duration of Permit Nos. 098-0015, 098-0018, or for the previous five years, whichever is less. [CP/OP 098-0015, 098-0018]

*d. Reporting Requirements*

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of the 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. 40 CFR Part 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

**Classification:**

- Engine Category: Institutional Emergency
- At the time of this Title V renewal (Application No. 201806541), each unit is an Existing Stationary Engine located at an Area Source of HAPs, constructed before June 12, 2006. The emergency engines meet the definition of Emergency Stationary RICE in 40 CFR §63.6675 and operate according to the provisions of 40 CFR §63.6640(f). The emergency engines are not contractually obligated to be used in Emergency Demand Response (EDR) or for local reliability criteria per 40 CFR §63.6585(f).

### Section III: Applicable Requirements and Compliance Demonstration

- *The Permittee should re-evaluate the requirements of 40 CFR Part 63 Subpart ZZZZ if any of the above conditions change.*

#### *a. Limitation or Restriction*

The Permittee may operate the emergency stationary RICE for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of the emergency engine beyond 100 hours per calendar year. [40 CFR §63.6640(f)(2)]

#### **Note:**

- The Permittee must maintain compliance with these operating limitations in order to be considered an emergency engine and maintain exemption from other requirements of 40 CFR Part 63 Subpart ZZZZ.
- The 100 hours and any additional approved time used for maintenance checks and readiness testing as described in Section III.I.4.a of this Title V permit shall count towards the hours of operation in Section III.I.1.a of this Title V permit.

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

Record keeping specified in Section III.I.4.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 must keep records of the operation of the engine in emergency and non-emergency service through the non-resettable hour meter. The Permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [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)]

### **J. GROUPED EMISSIONS UNIT 13 (GEU-13): Emergency Engines**

- EU-19:** 2.50 MMBtu/hr (285 hp) Onan natural gas fired emergency engine – Biobehavioral Building No. 4
- EU-20:** 0.60 MMBtu/hr (50 hp) Onan natural gas fired emergency engine – Ellsworth Hall
- EU-23:** 1.06 MMBtu/hr (168 hp) Kohler LPG fired emergency engine – Atwater Laboratory
- EU-27:** 0.18 MMBtu/hr (25 hp) Onan LPG fired emergency engine – Hollister Hall
- EU-30:** 1.81 MMBtu/hr (220 hp) Marathon LPG fired emergency engine – Facilities

### Section III: Applicable Requirements and Compliance Demonstration

	Management
<b>EU-42:</b>	0.18 MMBtu/hr (25 hp) Onan LPG fired emergency engine – New Fine Arts Building
<b>EU-43:</b>	0.53 MMBtu/hr (75 hp) Onan LPG fired emergency engine – WHUS Radio Building
<b>EU-48:</b>	1.2 MMBtu/hr (150 hp) Kohler natural gas fired emergency engine – Whitney Hall
<b>EU-56:</b>	2.93 MMBtu/hr (419 hp) Cummins diesel fired emergency engine – Electric Mobile
<b>EU-57:</b>	2.93 MMBtu/hr (419 hp) Onan diesel fired emergency engine – Institute of Material Science
<b>EU-59:</b>	0.29 MMBtu/hr (66 hp) Kohler emergency diesel fired engine – Jorgensen Auditorium
<b>EU-575:</b>	0.65 MMBtu/hr (82 hp) Kohler LPG fired emergency engine – Field House
<b>EU-608:</b>	0.28 MMBtu/hr (45 hp) Perkins emergency fired diesel engine – Ice Rink
<b>EU-609:</b>	0.52 MMBtu/hr ( 82hp) Kohler LPG fired emergency engine – Horse Barn Lift Station
<b>EU-1314:</b>	1.95 MMBtu/hr (225 hp) Cummins natural gas fired emergency engine – Young Building

#### Classification:

- Engine Category: Institutional Emergency
- Subject to 40 CFR Part 63 Subpart ZZZZ
- Subject to 40 CFR Part 60 Subpart JJJJ
- *Not subject to RCSA §§22a-174-3a or 22a-174-22e*
- EU-56 and EU-57 were not subject to RCSA §22a-174-3 (Regulations applicable at the time of construction; Construction dates: 1988 and 1970)

#### 1. 40 CFR Part 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

##### Classification:

All except EU-1314

- Engine Category: Institutional emergency
- At the time of this Title V renewal (Application No. 201806541), each unit is an Existing Stationary Engine located at an Area Source of HAPs, constructed before June 12, 2006. The emergency engines meet the definition of Emergency Stationary RICE in 40 CFR §63.6675 and operate according to the provisions of 40 CFR §63.6640(f). The emergency engines are not contractually obligated to be used in Emergency Demand Response (EDR) or for local reliability criteria per 40 CFR §63.6585(f).
- *The Permittee should re-evaluate the requirements of 40 CFR Part 63 Subpart ZZZZ if any of the above conditions change.*

##### a. Limitation or Restriction

- i. The Permittee must operate the emergency stationary RICE according to the following requirements:
  - (A) There is no limit on the use of emergency stationary RICE in emergency situations. [40 CFR §63.6640(f)(1)]
  - (B) The Permittee may operate the emergency stationary RICE for a maximum of 100 hours per calendar year 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

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

Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of the emergency engine beyond 100 hours per calendar year. [40 CFR §63.6640(f)(2)]

- ii. The Permittee may operate the emergency stationary RICE 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 provided in Section III.J.1.a.i.(B) of this Title V permit. [40 CFR §63.6640(f)]

**Note:**

The Permittee must maintain compliance with these operating limitations in order to be considered an emergency engine and maintain exemption from other requirements of 40 CFR Part 63 Subpart ZZZZ.

*b. Monitoring and Testing Requirements*

Record keeping specified in Section III.J.1.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 must keep records of the operation of the engine in emergency and non-emergency service through the non-resettable hour meter. The Permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [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)]

## **2. 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**

### **EU-1314 ONLY**

**Classification:**

- Emergency Spark Ignition Engine constructed after June 12, 2006 where the engine was manufactured on or after January 1, 2009
- Pursuant to 40 CFR §63.6590(c), EU-1314 meets the requirements of 40 CFR Part 63 Subpart ZZZZ by complying with 40 CFR Part 60 Subpart JJJJ.
- *The Permittee should re-evaluate the requirements of 40 CFR Part 60 Subpart JJJJ if any of the above conditions change.*

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

#### *a. Limitation or Restriction*

- i. The Permittee shall comply with the applicable emission standards for all pollutants for a new spark ignition emergency engine as listed in 40 CFR §60.4233(d) and (e) and 40 CFR Part 60 Subpart JJJJ, Table 1 by purchasing an engine certified according to the procedures specified in 40 CFR Part 60 Subpart JJJJ for the same model year.  
[40 CFR §60.4243(b)(1)]
- ii. The Permittee shall operate and maintain the engines to achieve the emission standards as required in 40 CFR §60.4233 over the entire life of the engine. [40 CFR §60.4234]
- iii. The Permittee shall operate and maintain each certified stationary SI internal combustion engine according to the manufacturer's emission related written instructions.  
[40 CFR §60.4243(a)(1)]
- iv. There is no limit on the use of the emergency stationary RICE in emergency situations.  
[40 CFR §60.4243(d)(1)]
- v. The Permittee may operate the emergency stationary RICE for a maximum of 100 hours per calendar year 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 the emergency engine beyond 100 hours per calendar year. [40 CFR §60.4243(d)(2)(i)]
- vi. Emergency stationary RICE 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.  
[40 CFR §60.4243(d)(3)]

#### **Note:**

- The Permittee must maintain compliance with these operating limitations in order to be considered an emergency engine and maintain exemption from other requirements of 40 CFR Part 60 Subpart JJJJ.

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

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

#### *c. Record Keeping Requirements*

- i. The Permittee shall comply with all record keeping requirements of the General Provisions in 40 CFR §§60.1 through 60.19, inclusive, as specified in 40 CFR Part 60 Subpart JJJJ, Table 3. [40 CFR §60.4246]

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

- ii. The Permittee shall keep records of maintenance conducted on each engine. [40 CFR §60.4245(a)(2)]
- iii. The Permittee shall keep documentation from the manufacturer certifying compliance with the emission standards in Section III.J.2.a of this Title V permit. [40 CFR §60.4245(a)(3)]
- iv. The Permittee shall keep records of all notifications submitted to comply with 40 CFR Part 60 Subpart JJJJ and all documentation supporting any notification. [40 CFR §60.4245(a)(1)]

#### *d. Reporting Requirements*

The Permittee shall comply with all reporting requirements of the General Provisions in 40 CFR §§60.1 through 60.19, inclusive, as specified in 40 CFR Part 60 Subpart JJJJ, Table 3. [40 CFR §60.4246]

### **K. EMISSIONS UNIT 62 (EU-62): Emergency Engine**

**EU-62:** 6.44 MMBtu/hr (629 hp) Cummins diesel fired emergency engine – Water High Head Building

#### **Classification:**

- Emergency engine subject to RCSA §22a-174-22e
- Not subject to RCSA §22a-174-3 (Regulations applicable at the time of construction, construction date: 1975)
- Subject to 40 CFR Part 63 Subpart ZZZZ

#### **1. NO<sub>x</sub> – RCSA §22a-174-22e**

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

- i. 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 owner or operator is no longer prohibited from operating the engine for routine, scheduled testing or maintenance for the remainder of that day. An owner or operator of an emergency engine may rely on an ozone forecast of “moderate” or lower obtained after 3 p.m. on the preceding day. Subsequent changes to the ozone forecast after 3 p.m. that forecast ozone levels of “moderate to unhealthy for sensitive groups” or greater shall not obligate the owner or operator to refrain from operation of the emergency engine at the facility on the following day. The commissioner may exempt, by permit or order, the Permittee of an emergency engine from this subdivision 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)]
- ii. The Permittee shall operate the engine as an emergency engine as defined in RCSA 22a-174-22e(a)(13). [RCSA §22a-174-22e]



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

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

Record keeping specified in Section III.K.1.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) and 22a-174-22e(c)(5)]

#### *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)(1), (2)(B), (2)(F) and (2)(G)]
  - (A) The date and work performed for repairs, replacement of parts and other maintenance;
  - (B) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and
  - (C) Any other document or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e.

#### *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. 40 CFR Part 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

### **Classification:**

**All except EU-1314**

- Engine Category: Institutional emergency
- At the time of this Title V renewal (Application No. 201806541), each unit is an Existing Stationary Engine located at an Area Source of HAPs, constructed before June 12, 2006. The emergency engines meet the definition of Emergency Stationary RICE in 40 CFR §63.6675 and operate according to the provisions of 40 CFR §63.6640(f). The emergency engines are not contractually obligated to be used in Emergency Demand Response (EDR) or for local reliability criteria per 40 CFR §63.6585(f).
- *The Permittee should re-evaluate the requirements of 40 CFR Part 63 Subpart ZZZZ if any of the above conditions change.*

#### *a. Limitation or Restriction*

- i. The Permittee must operate the emergency stationary RICE according to the following requirements:

### Section III: Applicable Requirements and Compliance Demonstration

- (A) There is no limit on the use of emergency stationary RICE in emergency situations. [40 CFR §63.6640(f)(1)]
- (B) The Permittee may operate the emergency stationary RICE for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of the emergency engine beyond 100 hours per calendar year. [40 CFR §63.6640(f)(2)]

**Note:**

The Permittee must maintain compliance with these operating limitations in order to be considered an emergency engine and maintain exemption from other requirements of 40 CFR Part 63 Subpart ZZZZ.

*b. Monitoring and Testing Requirements*

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

*c. Record Keeping Requirements*

The Permittee must keep records of the operation of the engine in emergency and non-emergency service through the non-resettable hour meter. The Permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [40CFR §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)]

#### **L. EMISSIONS UNIT 549 (EU-549): Boiler**

**EU-549:** 2.0 MMBtu/hr No. 2 fuel oil fired boiler – Water Pollution Control Facility

**Classification:**

- Subject to 40 CFR Part 63 Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers Area Sources
- Existing Oil Fired boiler (Table 2 to 40 CFR Part 63 Subpart JJJJJ, Option 12)
- Oil fired boiler with heat input capacity of equal to or less than 5 MMBtu/hr
- *Not subject to RCSA §22a-174-3a or 22a-174-22e*

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

#### **1. 40 CFR Part 63 Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers Area Sources**

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

- i. The Permittee shall at all times, operate and maintain the boiler in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR §63.11205(a)]
- ii. The Permittee shall conduct a tune-up of the boiler every five years as specified in 40 CFR §63.11223. Each five year tune-up must be conducted no more than 61 months after the previous tune-up. [40 CFR §63.11223, Table 2 - Option 12]

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

Record keeping specified in Section III.L.1.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*

- i. The Permittee must maintain the following records:
  - (A) Copy of each notification and report submitted to comply with 40 CFR Part 63 Subpart JJJJJJ and all documentation supporting any initial notification or notification of compliance status. [40 CFR §63.11225(c)(1)]
  - (B) Records of the occurrence and duration of each malfunction of the boiler. [40 CFR §63.11225(c)(4)]
  - (C) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR §63.11205(a), including corrective actions to restore the malfunctioning boiler to its normal or usual manner of operation. [40 CFR §63.11225(c)(5)]
  - (D) Records of each tune-up identifying the boiler, the date of the tune-up, the procedures followed for the tune-up, and the manufacturer's specifications to which the boiler was tuned. [40 CFR §63.11225(c)(2)(i)]
  - (E) The concentration 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. [40 CFR §63.11223(b)(6)(i)]
  - (F) A description of any corrective actions taken as part of the tune-up of the boiler. [40 CFR §63.11223(b)(6)(ii)]
  - (G) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, 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 use by each unit. [40 CFR §63.11223(b)(6)(iii)]

### Section III: Applicable Requirements and Compliance Demonstration

#### d. Reporting Requirements

- i. The Permittee must submit applicable notifications in accordance with 40 CFR §63.11225(a). [40 CFR §63.11225(a)]
- ii. The Permittee must prepare, by March 1 of each year, and submit to the delegated authority upon request a five year compliance report as specified in 40 CFR §§63.11225(b)(1) and (b)(2). The Permittee must submit the report by March 15 if there was an instance as described by 40 CFR §63.11225(b)(3). [40 CFR §63.11225(b)]

#### M. EMISSIONS UNIT 558 (EU-558): Boiler

**EU-558:** 121.2 MMBtu/hr (NG) and 115.5 MMBtu/hr (oil) Boiler No. 9, English D-Type boiler  
Central Utility Plant

##### Classification:

- Boiler operating under NSR Permit No. 098-0026
- Subject to RCSA §22a-174-22e
- Subject to 40 CFR Part 60 Subpart Db
- Subject to 40 CFR Part 63 Subpart JJJJJ

#### 1. Fuel Types, Fuel Sulfur Content and Fuel Consumption

##### a. Limitation or Restriction

- i. The Permittee shall burn No. 2 fuel oil or natural gas. [CP/OP 098-0026]
- ii. The sulfur content in the fuel shall not exceed 15 ppm by weight. [CGS §16a-21a and RCSA §22a-174-19(b)]
- iii. Maximum fuel consumption over any consecutive 12 month period shall not exceed 772.87 MMft<sup>3</sup> of natural gas and 496,440 gallons of No. 2 fuel oil. [CP/OP 098-0026]

##### b. Monitoring and Testing Requirements

The Permittee shall continuously monitor fuel consumption using a non-resettable totalizing fuel meter when more than one fuel supply tank is to service this source or when multiple sources are supplied by one fuel tank. [CP/OP 098-0026]

##### c. Record Keeping Requirements

- i. The Permittee shall keep records of monthly and annual fuel consumption. Annual fuel consumption shall be based on any consecutive 12 month period and shall be determined by adding (for each fuel) the current month's fuel usage to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [CP/OP 098-0026]
- ii. The Permittee shall keep records of the fuel certification for each delivery of fuel from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include the date of

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

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. [CP/OP 098-0026]

- iii. The Permittee shall keep all records required by this Title V permit for a period of no less than five years and shall submit such records to the commissioner upon request. [CP/OP 098-0026]

#### *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. Continuous Emission Monitoring Requirements**

#### *a. Limitation or Restriction*

The Permittee shall comply with the CEM requirements as set forth in RCSA §22a-174-4. CEM shall be required for the following pollutant/operational parameters and enforced on the following basis:

- i. Opacity: Averaging time: six minute block  
Emission Limit: 20% opacity  
[CP/OP 098-0026, 40 CFR Part 60 Subpart Db]
- ii. NO<sub>x</sub>: Averaging time: 24 hour rolling  
Emission Limit: Natural gas: 0.040 lb/MMBtu  
No. 2 fuel oil: 0.10 lb/MMBtu  
[CP/OP 098-0026, 40 CFR Part 60 Subpart Db]
- iii. O<sub>2</sub>: Averaging time: one hour block  
[CP/OP 098-0026, 40 CFR Part 60 Subpart Db]

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

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 60, Subpart A, Appendix B and Appendix F. [RCSA §22a-174-22e(m)(4)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall comply with the record keeping requirements of the CEM guidelines. [CP/OP 098-0026]
- ii. The Permittee shall maintain reports of all monitoring and test data in accordance with RCSA §22a-174-4(c). [RCSA §22a-174-4(c)]

### Section III: Applicable Requirements and Compliance Demonstration

- iii. The Permittee shall make and keep records of all performance evaluations, calibrations checks and adjustments on the NO<sub>x</sub> CEM. [RCSA §22a-174-22e(j)(2)(D)(i)]
- iv. The Permittee shall make and keep records of maintenance performed. [RCSA §22a-174-22e(j)(2)(D)(ii)]
- v. The Permittee shall keep all records required by this Title V permit for a period of no less than five years and shall submit such records to the commissioner upon request. [CP/OP 098-0026]

#### d. Reporting Requirements

The Permittee shall comply with the reporting requirements of the CEM guidelines. [CP/OP 098-0026]

### 3. PM<sub>10</sub>, SO<sub>2</sub>, VOC, CO and Pb

#### a. Limitation or Restriction

- i. PM<sub>10</sub>:
  - (A) Natural gas: emissions shall not exceed 0.61 lb/hr, 0.005 lb/MMBtu and 2.01 TPY. [CP/OP 098-0026]
  - (B) No. 2 fuel oil: emissions shall not exceed 5.78 lb/hr, 0.05 lb/MMBtu and 1.73 TPY. [CP/OP 098-0026]
  - (C) Total PM<sub>10</sub> emissions shall not exceed 3.74 TPY for natural gas and No. 2 fuel oil, combined. [CP/OP 098-0026]
- ii. SO<sub>2</sub>:
  - (A) Natural gas: emissions shall not exceed 0.12 lb/hr, 0.001 lb/MMBtu and 0.40 TPY. [CP/OP 098-0026]
  - (B) No. 2 fuel oil: emissions shall not exceed 26.57 lb/hr, 0.23 lb/MMBtu and 7.97 TPY. [CP/OP 098-0026]
  - (C) Total SO<sub>2</sub> emissions shall not exceed 8.37 TPY for natural gas and No. 2 fuel oil, combined. [CP/OP 098-0026]
- iii. VOC:
  - (A) Natural gas: emissions shall not exceed 0.34 lb/hr, 0.003 lb/MMBtu and 1.12 TPY. [CP/OP 098-0026]
  - (B) No. 2 fuel oil: emissions shall not exceed 0.81 lb/hr, 0.01 lb/MMBtu and 0.24 TPY. [CP/OP 098-0026]
  - (C) Total VOC emissions shall not exceed 1.36 TPY for natural gas and No. 2 fuel oil, combined. [CP/OP 098-0026]

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

iv. CO:

- (A) Natural gas: emissions shall not exceed 3.03 lb/hr, 0.025 lb/MMBtu and 10.00 TPY. [CP/OP 098-0026]
- (B) No. 2 fuel oil: emissions shall not exceed 4.62 lb/hr, 0.04 lb/MMBtu and 1.39 TPY. [CP/OP 098-0026]
- (C) Total CO emissions shall not exceed 11.39 TPY for natural gas and No. 2 fuel oil, combined. [CP/OP 098-0026]

v. Pb:

No. 2 fuel oil: emissions shall not exceed 0.001 lb/hr, 9.0 E-6 lb/MMBtu and 0.0003 TPY. [CP/OP 098-0026]

*b. Monitoring and Testing Requirements*

Record keeping specified in Section III.M.3.c of this Title V permit shall be sufficient to meet other Monitoring and Testing requirements pursuant to RCSA §22a-74-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

*c. Record Keeping Requirements*

- i. The Permittee shall calculate and record the monthly and consecutive 12 month PM<sub>10</sub>, SO<sub>2</sub>, VOC, CO and Pb emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations with 30 days of the end of the previous month. [CP/OP 098-0026 and RCSA §22a-174-33(j)(1)(K)]
- ii. The Permittee shall demonstrate compliance with Section III.M.3.a of this Title V Permit by calculating the emission rates using emission factors from the following sources: [CP/OP 098-0026]
  - (A) Manufacturer's emission factors provided by COEN Company (burner manufacturer).
  - (B) For calculation of emissions of lead from No. 2 fuel oil, AP- 42, Chapter 1.3, Supplement E, September, 1998.
  - (C) For calculation of emissions of Hazardous Air Pollutants, AP-42, 5<sup>th</sup> Edition, Chapter 1.3, Supplement E, September 1998; Chapter 1.4 Supplement D, March 1998.
  - (D) Sulfuric Acid emissions are based on a DEEP emission factor (2.45 x S lb/1000 gal of oil, where S represents sulfur content).
- iii. The Permittee shall keep all records required by this Title V permit for a period of no less than five years and shall submit such records to the commissioner upon request. [CP/OP 098-0026]

### Section III: Applicable Requirements and Compliance Demonstration

#### *d. Reporting Requirements*

The reporting period for the reports required under 40 CFR Part 60 Subpart Db is each six month period. All reports shall be submitted to the Environmental Protection Agency and shall be postmarked by the 30<sup>th</sup> day following the end of the reporting period. [40 CFR §60.49b(w)]

#### **4. NO<sub>x</sub>/Control Equipment**

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

##### *i. NO<sub>x</sub>:*

- (A) Natural gas: emissions shall not exceed 4.85 lb/hr, 0.040 lb/MMBtu and 16.01 TPY. [CP/OP 098-0026]
- (B) No. 2 fuel oil: emissions shall not exceed 11.55 lb/hr, 0.10 lb/MMBtu and 3.47 TPY. [CP/OP 098-0026]
- (C) Total NO<sub>x</sub> emissions shall not exceed 19.48 TPY for natural gas and No. 2 fuel oil, combined. [CP/OP 098-0026]
- (D) Low NO<sub>x</sub> burner and flue gas recirculation: Guaranteed NO<sub>x</sub> emission rate:  
[CP/OP 098-0026]  
Natural gas: 0.04 lb/MMBtu  
No. 2 fuel oil: 0.10 lb/MMBtu

##### *ii. The Permittee shall not cause or allow EU-558 to exceed the following emission limitations: [RCSA §§22a-174-22e(d)(3)(A) and (C)]*

- (A) Phase 1: Effective June 1, 2018  
Natural gas: 0.20 lb/MMBtu  
No. 2 fuel oil: 0.20 lb/MMBtu/hr
- (B) Phase 2: Effective June 1, 2023  
Natural gas: 0.10 lb/MMBtu  
No. 2 fuel oil: 0.15 lb/MMBtu

##### *iii. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations. [CP/OP 098-0026]*

##### *iv. The Permittee shall properly operate the control equipment at all times that this equipment is in operation and emitting air pollutants. [CP/OP 098-0026]*

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

- i. If required by the commissioner, the Permittee shall measure NO<sub>x</sub> emissions using EPA Method 7 stack test. [RCSA §§22a-174-5(b)(7) and 22a-174-33(j)(1)(K)(ii)]*
- ii. The Permittee may conduct tune-ups according to the schedule and procedures of the applicable requirements of 40 CFR Part 63 Subpart JJJJJ. If the period between tune-ups in the applicable requirements of 40 CFR Part 63 Subpart JJJJJ is greater than 60 months, a tune-up shall be conducted at least once every 60 months. [RCSA §22a-174-22e(i)(2)]*



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

- iii. 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)]
- iv. Emissions data used to determine compliance with the applicable emissions limitations in Section III.M.4.a.ii of this Title V permit 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.
- v. The Permittee shall comply with the emission limitations of Section III.M.4.a.ii, based on a daily block average, with a NO<sub>x</sub> CEM. A daily block average means the arithmetic mean of all hourly emission concentrations or rates recorded when an emission unit is operating measured over a 24 hour period from 12 a.m. (midnight) to 12 a.m. (midnight). [RCSA §§22a-174-22e(a)(7) and 22a-174-22e(d)(3)]

#### *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. [CP/OP 098-0026]
- ii. The Permittee shall retain all records and reports produced pursuant to this section 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:  
[RCSA §§22a-174-22e(j)(2)(B), (D)(i) through(iv), (E), (F) and (G)]
  - (A) Date and work performed for repairs, replacement of parts and other maintenance;
  - (B) Records of all performance evaluations, calibration checks and adjustments performed on the NO<sub>x</sub> CEM system;
  - (C) Records of maintenance performed on the NO<sub>x</sub> CEM system;

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

- (D) All data necessary to complete the quarterly reports required under RCSA §22a-174-22e(k)(3);
- (E) Charts, electronically stored data, and printed records produced by the CEM system as needed to demonstrate compliance with RCSA §22a-174-22e;
- (F) For each tune-up, for each emission unit, conducted pursuant to RCSA §22a-174-22e(i);
  - (1) the date on which the emission unit is tune-up;
  - (2) a description of the work performed;
  - (3) the procedures used to inspect and perform adjustments.
- (G) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and
- (H) Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e.

#### *d. Reporting Requirements*

- i. The Permittee shall submit, not more than 60 days after the completion of a certification test conducted under the requirements of RCSA §22a-174-22e(m) 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 in accordance with RCSA §22a-174-22e(k)(3). [RCSA §22a-174-22e(k)]

### **5. Opacity**

#### *a. Limitation or Restriction*

This equipment shall not exceed 20% opacity during any six minute block average as measured by 40 CFR Part 60, Appendix A, Reference Method 9. [CP/OP 098-0026]

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

If required by the commissioner, the Permittee shall verify opacity using visible emissions testing as measured by 40 CFR Part 60, Appendix A, Reference Method 9 or other method approved by the Department. [RCSA §22a-174-33(j)(1)(K)(ii)]

#### *c. Record Keeping Requirements*

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 and shall submit such records to the commissioner upon request. [RCSA §22a-174-33(j)(1)(K)(ii)]

### 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, including information to determine whether cause exists for modifying, revoking, reopening, reissuing, suspending or to determine compliance with this Title V permit. [RCSA §22a-174-33(j)(1)(X)]

#### 6. 40 CFR Part 63 Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

##### Classification:

- Existing oil fired boiler at an area source of HAPs
- Boiler is equipped with an oxygen trim system

#### a. Limitation or Restriction

- i. The Permittee shall demonstrate initial compliance with 40 CFR Part 63 Subpart JJJJJJ according to the applicable provisions in 40 CFR §63.7(a)(2), except as provided in 40 CFR §63.11210(j). [40 CFR §63.11210(c)]
- ii. The Permittee shall conduct a tune-up every five years as specified in 40 CFR §63.11223. Each five year tune-up must be conducted no more than 61 months after the previous tune-up. The Permittee must conduct the tune-up while burning the type of fuel that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. [40 CFR §63.11223(a) and (c)]
- iii. The Permittee, at all times, shall operate and maintain this boiler in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by 40 CFR Part 63 Subpart JJJJJJ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR §63.11205(a)]

#### b. Monitoring and Testing Requirements

Record keeping specified in Section III.M.6.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

- i. The Permittee shall keep, as required in 40 CFR §63.10(b)(2)(xiv), a copy of each notification and report that is submitted to comply with 40 CFR Part 63 Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that is submitted. [40 CFR §63.11225(c)(1)]
- ii. The Permittee shall keep records that identify the boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.

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

[40 CFR §63.11225(c)(2)(i)]

- iii. The Permittee shall keep a copy of the energy assessment report. [40 CFR §63.11225(c)(2)(iii)]
- iv. The Permittee shall keep records of the occurrence and duration of each malfunction of the boiler. [40 CFR §63.11225(c)(4)]
- v. The Permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR §63.11205(a), including corrective actions to restore the malfunctioning boiler to its normal or usual manner of operation. [40 CFR §63.11225(c)(5)]
- vi. The Permittee shall keep records of the concentration 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. [40 CFR §63.11223(b)(6)(i)]
- vii. The Permittee shall keep records of any corrective actions taken as part of the tune-up of the boiler. [40 CFR §63.11223(b)(6)(ii)]
- viii. The Permittee shall keep records of the type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if it was physically and legally capable of using more than one type of fuel during that period. [40 CFR §63.11223(b)(6)(iii)]

#### *d. Reporting Requirements*

- i. The Permittee shall prepare a five year compliance certification report for the previous calendar year containing the information in 40 CFR §§63.11225(b)(1) and (2). This report shall be prepared by March 1 of the calendar year that follows the year that the compliance tune-up was performed and shall be submitted to the delegated authority upon request. The report must be submitted by March 15 if there were any instances described in paragraph 40 CFR §63.11225(b)(3). [40 CFR §63.11225(b)]
- ii. The Permittee shall submit a signed statement in the Notification of Compliance Status report that indicates that the Permittee conducted a tune-up of the boiler. [40 CFR §63.11214(b)]
- iii. The Permittee shall submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed according to Table 2 of 40 CFR Part 63 Subpart JJJJJ and is an accurate depiction of the Permittee's facility. [40 CFR §63.11214(c)]
- iv. The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

#### **N. EMISSIONS UNIT 569 (EU-569): Non-Emergency Chiller Engine**

**EU-569:** 3.88 MMBtu/hr (430 hp) Waukesha Model F18GLD Non-emergency Chiller Engine – South Campus Chiller Plant

### Section III: Applicable Requirements and Compliance Demonstration

#### Classification:

- Subject to RCSA §22a-174-22e
- Subject to 40 CFR Part 63 Subpart ZZZZ
- *Not subject to RCSA §22a-174-3a*

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

##### a. Limitation or Restriction

- i. The Permittee shall not cause or allow EU-569 to exceed the following emission limitations: [RCSA §§22a-174-22e(d)(6)(A) and (B)]
  - (A) Phase 1: Effective June 1, 2018  
Natural gas: 2.5 g/bk hp-hr
  - (B) Phase 2: Effective June 1, 2023  
Natural gas: 1.5 g/bk hp-hr
- ii. The Permittee shall conduct an inspection and tune-up of the emission unit a minimum of once per calendar year beginning with year 2018. Each subsequent annual tune-up shall be performed no earlier than 180 days after the previous tune-up conducted under this section. The inspection and tune-up of the emission unit shall be conducted according to the manufacturer's recommended procedures, or, if the manufacturer's recommendations are no longer available, according to best available practices. [RCSA §22a-174-22e(i)(1)]

##### b. Monitoring and Testing Requirements

- i. 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 RCSA §22a-174-22(k). [RCSA §22a-174-22e(l)(4)]
- ii. The Permittee shall conduct the emission test following the initial emissions test on a date after May 31, 2023 and no later than June 1, 2025. Subsequently, the Permittee shall conduct emission tests within every 63 calendar months following the date the previous emission test was conducted or the date the previous emission test was required to be conducted, whichever is earlier. [RCSA §22a-174-22e(l)(5)]
- iii. 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 in accordance with RCSA §22a-174-22e(l)(6). [RCSA §22a-174-22e(j)(1)(6)]
- iv. The Permittee shall demonstrate compliance with the emissions limitations of RCSA §22a-174-22e using sampling and analytical procedures under 40 CFR 60, Appendix A or under procedures in RCSA section 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 percent of maximum capacity, except as described in RCSA §§22a-174-22e(l)(7)(A) and (B). [RCSA §22a-174-22e(l)(7)]

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

#### *c. Record Keeping Requirements*

- i. The Permittee shall retain all records and reports produced pursuant to this section 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]
- ii. The Permittee shall make and keep the following records:  
[RCSA §§22a-174-22e(2)(B),(C), (E)(i) and (ii), (F) and (G)]
  - (A) The date and work performed for repairs, replacement of parts and other maintenance;
  - (B) Records of the dates and times of all emission testing required by this section, the persons performing the measurements, the testing methods used, the operating conditions at the time of testing, and the results of such testing;
  - (C) For each tune-up, for each emission unit, conducted pursuant to RCSA §22a-174-22e(i);
    - (1) the date on which the emission unit is tune-up;
    - (2) a description of the work performed;
    - (3) the procedures used to inspect and perform adjustments.
  - (D) Copies of all documents submitted to the commissioner pursuant to this section; and
  - (E) Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e.

#### *d. Reporting Requirements*

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

## **2. 40 CFR Part 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

#### **Classification:**

- Non-emergency Spark Ignition 4 Stroke Lean Burn Engine
- Constructed before June 12, 2006

#### *a. Limitation or Restriction*

- i. The Permittee shall change oil and filter every 1,440 hours of operation or annually, whichever comes first. [40 CFR §63.6603(a), Table 2d, Option 7]
- ii. The Permittee shall inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace if necessary. [40 CFR §63.6603(a), Table 2d, Option 7]

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

- iii. The Permittee shall inspect all hoses and belts every 1,440 hours of operation or annually whichever comes first, and replace if necessary. [40 CFR §63.6603(a), Table 2d, Option 7]
- iv. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR §63.6625(h)]
- v. The Permittee must operate and maintain the engine and after treatment control devices according to the manufacturer's emission related written instruction.  
[40 CFR §63.6625(e)(7)]

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

The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirements in 40 CFR Part 63 Subpart ZZZZ, Table 2d. The oil analysis must be performed in accordance with 40 CFR §63.6625(j).  
[40 CFR Part 63 Subpart ZZZZ, Table 2d, Footnote No.1]

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of the parameters that are analyzed as part of the oil analysis program, the results of the analysis, and the oil changes for the engine.  
[40 CFR §63.6625(j)]
- ii. The Permittee shall make and keep records to show continuous compliance with the requirements to operate and maintain the engine in accordance with 40 CFR §63.6655(d).  
[40 CFR §63.6655(d) and 40 CFR Part 63 Subpart ZZZZ, Table 6, Option 9]
- iii. The Permittee shall make and keep all records in a form suitable for expeditious review according to 40 CFR §63.10(b)(1). All records must be kept readily accessible in hard copy or electronic form for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR §63.6660(c)]

#### *d. Reporting Requirements*

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

### **O. EMISSIONS UNIT 551 (EU-551): Motor Pool Fuel Distribution**

#### **Classification:**

- Subject to RCSA §22a-174-20
- Subject to RCSA §22a-174-30a
- Subject to 40 CFR Part 63 Subpart CCCCCC
- Stationary storage tank for gasoline at a dispensing facility with capacity of more than 250 gallons and monthly throughput of 10,000 gallons or more but less than 100,000 gallons.

#### **1. Gasoline Storage Tank**

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

*a. Limitation or Restriction:*

The Permittee shall not place, store, or hold in any stationary storage vessel of more than 250 gallon (950 liter) capacity any VOC with a vapor pressure of 0.75 pounds per square inch or greater under standard conditions unless such vessel is equipped with a permanent submerged fill pipe or is a pressure tank as described in RCSA §22a-174-20(a)(2)(A). Submerged fill pipes installed on or prior to the effective date of this subsection shall have a discharge point no more than 18 inches from the bottom of the storage tank or be compliant with the requirements of 40 CFR Part 63 Subpart CCCCC. Submerged fill pipes installed after the effective date of this subsection shall have a discharge point no more than six inches from the bottom of the storage tank. [RCSA §22a-174-20(a)(5)]

*b. Monitoring and Testing Requirements*

Record keeping specified in Section III.O.1.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 including, at a minimum, the information described in RCSA §22a-174-20(a)(10)(B). All such records shall be: [RCSA §22a-174-20(A)(10)(A)]

- i. Made available to the commissioner to inspect and copy upon request, and
- ii. Maintained for five years from the date such record is created.

*d. Reporting Requirements*

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

## **2. Stage I Vapor Recovery (RCSA §22a-174-30a)**

*a. Limitation or restrictions*

- i. The Permittee of a gasoline dispensing facility shall not transfer or allow the transfer of gasoline between a delivery vehicle and a gasoline transfer facility stationary storage tank unless such stationary storage tank is equipped with a Stage I vapor recovery system that includes: [RCSA §22a-174-30a(c)(1)]
  - (A) A California Air Resources Board approved fill adapter; and
  - (B) A pressure/vacuum vent valve on each gasoline dispensing facility storage tank vent pipe.
- ii. Any pressure/vacuum vent valve installed on and after July 1, 2015 shall be a California Air Resources Board approved pressure/vacuum vent valve. [RCSA §22a-174-30a(c)(2)]
- iii. The pressure specifications for any pressure/vacuum vent valve shall be as follows:



### Section III: Applicable Requirements and Compliance Demonstration

[RCSA §22a-174-30a(c)(3)]

- (A) For any pressure/vacuum vent valve installed prior to July 1, 2015:
    - (1) A positive pressure setting of:
      - (a) 3.0 inches of water, plus or minus 0.5 inch, or
      - (b) 2.5 to 6.0 inches of water, and
    - (2) A vacuum setting of 8.0 inches of water, plus or minus 2.0 inches; and
  - (B) For any pressure/vacuum vent valve installed on and after July 1, 2015:
    - (1) A positive pressure setting of 2.5 to 6.0 inches of water,
    - (2) A negative pressure setting of 6.0 to 10.0 inches of water, and
    - (3) The total leak rate of all pressure/vacuum vent valves at an affected facility, including connections, shall not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water.
- iv. Except as provided in RCSA §22a-174-30a(c)(5), a gasoline dispensing facility storage tank shall be equipped with a two-point Stage I vapor recovery system. The vapor exit port of the two point Stage I vapor recovery system shall be designed and maintained to seal in a manner that will prevent the discharge of gasoline vapors to the atmosphere when the vapor return hose is disconnected. [RCSA §22a-174-30a(c)(4)]

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

- i. The Permittee of any gasoline dispensing facility shall conduct each of the following tests at least once per calendar year: [RCSA §§22a-174-30a(d)(1)(A) through (C), (4), (5) and (7)]
  - (A) For every pressure/vacuum vent valve, a pressure/vacuum vent valve test. The pressure/vacuum vent valve tests shall be conducted according to the current version of California Air Resources Board TP-201.1E, *Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves*, as may be revised from time to time, or another test method approved by the commissioner and the Administrator;
  - (B) A pressure decay test. The pressure decay tests shall be conducted according to the current version of California Air Resources Board TP-201.3, *Determination of 2 Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities*, as may be revised from time to time, or another test method approved by the commissioner and the Administrator; and
  - (C) A vapor-space tie-in test. Vapor-space tie-in tests shall be conducted according to the current version of California Air Resources Board TP-201.3C, *Determination of Vapor Piping Connections to Underground Gasoline Storage Tanks (Tie-Tank Test)*, as may be revised from time to time, or another test method approved by the commissioner and the Administrator.
- ii. If an owner or operator of any gasoline dispensing facility fails any test required by RCSA §22a-174-30a, the Permittee shall take corrective actions and retest no later than 60 days after failing the test. [RCSA §22a-174-30a(d)(10)]

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

#### *c. Record Keeping Requirements*

- i. The Permittee shall maintain the following records:  
[RCSA §§22a-174-30a(e)(1)(A) through (F)]
  - (A) All licenses, as that term is defined in CGS §4-166, to construct or operate the gasoline dispensing facility or to construct or operate a specific system at the gasoline dispensing facility.
  - (B) All records and results of tests performed pursuant to RCSA §22a-174-30a including the date of the testing and the names, addresses, and phone numbers of the persons who performed the tests.
  - (C) A record of any maintenance or repair conducted on any part of the Stage I vapor recovery system, including a description of the maintenance or repair performed, identification of any part repaired or replaced on such Stage I vapor recovery system, the dates the maintenance or repair was performed, and a general description of the location of any part repaired or replaced.
  - (D) A chronological file of all inspection reports of the gasoline dispensing facility issued by a representative of the commissioner or Administrator for inspections performed at the gasoline dispensing facility.
  - (E) A chronological file of all compliance records, including orders, warnings and notices of violations, issued by a representative of the commissioner or Administrator; and
  - (F) A chronological register of daily throughput.
- ii. The Permittee shall make records required by RCSA §22a-174-30a available to the commissioner or the Administrator upon request. The Permittee shall make records available to the commissioner or Administrator no later than three business days after receiving such request. [RCSA §22a-174-30a(e)(3)]
- iii. The Permittee shall maintain the records for five years from the date of creation. [RCSA §22a-174-30a(e)(4)]
- iv. The Permittee shall display in a conspicuous location at the gasoline dispensing facility the address at which the records are maintained. [RCSA §22a-174-30a(e)(5)]

#### *d. Reporting Requirements*

- i. The Permittee of any gasoline dispensing facility shall:  
[RCSA §§22a-174-30a(d)(9)(A) and 22a-174-30a(d)(9)(B)]
  - (A) Notify the Department's Bureau of Air Management, Field Operations Section in writing of the time and location of a test required by this subsection at least seven business days in advance; and

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

- (B) Submit a copy of the test report on a form provided by the Department to the Department's Bureau of Air Management, Field Operations Section within ten days after performing a test required by RCSA §22a-174-30a.

#### **3. 40 CFR Part 63 Subpart CCCCCC - National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities**

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

- i. The Permittee must, at all times, operate and maintain the 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. 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 the operation and maintenance procedures, review of the operation and maintenance records, and inspection of the source.  
[ 40 CFR §63.11115(a)]
- ii. The Permittee must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following: [40 CFR §63.11116(a)]
  - (A) Minimize gasoline spills;
  - (B) Clean up spills as expeditiously as practicable;
  - (C) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasket seal when not in use;
  - (D) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
- iii. The Permittee must only load gasoline into the storage tank by utilizing a submerged fill pipe that is no more than 12 inches from the bottom of the tank.[40 CFR §63.11117(b)(1)]

##### *b. Monitoring and Testing requirements*

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

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

The Permittee shall keep records of monthly throughput of gasoline dispensed from the storage tank and provide those records to the Administrator within 24 hours of request. Records shall be kept for a period of five years. [40 CFR §§63.11111(e), (h) and 63.11117(d)]

##### *d. Reporting Requirements*

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

### Section III: Applicable Requirements and Compliance Demonstration

#### P. GROUPED EMISSIONS UNIT 14 (GEU-14): Four TECOCHILL CH-400 Chillers

- EU-1436:** TECOCHILL CH-400 Engine-driven chiller with two 161 hp TecoDrive 7400LE natural gas fired non-emergency engines
- EU-1437:** TECOCHILL CH-400 Engine-driven chiller with two 161 hp TecoDrive 7400LE natural gas fired non-emergency engines
- EU-1438:** TECOCHILL CH-400 Engine-driven chiller with two 161 hp TecoDrive 7400LE natural gas fired non-emergency engines
- EU-1439:** TECOCHILL CH-400 Engine-driven chiller with two 161 hp TecoDrive 7400LE natural gas fired non-emergency engines

#### **Classification:**

- Non-emergency Spark Ignition Engines
- Not subject to RCSA §22a-174-3a (Each EU)
- Not subject to RCSA §22a-174-22e (Each EU)
- Operating under Collateral Conditions in Permit No. 098-0026
- Subject to 40 CFR Part 60 Subpart JJJJ
- Pursuant to 40 CFR §63.6590(c), EU-1436, EU-1437, EU-1438 and EU-1439 meet the requirements of 40 CFR Part 63 Subpart ZZZZ by complying with 40 CFR Part 60 Subpart JJJJ.

#### **1. Fuel Consumption**

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

Total natural gas consumption over any consecutive 12 month period shall not exceed 53,698,800 ft<sup>3</sup> for the four emission units listed above combined. [CP/OP 098-0026]

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

The Permittee shall monitor monthly and consecutive 12 month period natural gas consumption for the emission units listed above. [CP/OP 098-0026]

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

- i. The Permittee shall keep records of monthly and consecutive 12 month period natural gas consumption for the emission units listed above. These records shall be obtained from monthly utility billing records for the four emission units combined. The consecutive 12 month fuel consumption shall be calculated by adding the fuel consumption from the current month's billing record to the fuel consumption obtained from the previous 11 months of billing records. The Permittee shall make these calculations within 30 days of the end of the previous month. [CP/OP 098-0026]
- ii. The Permittee shall keep records on the premises indicating continual compliance with the above conditions at all times and shall make them available upon request by the commissioner for the duration of this permit, or for the previous five years, whichever is less. [CP/OP 098-0026]

### **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 date specified by the commissioner whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

## **2. 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**

#### *a. Limitation or Restriction*

- i. The Permittee shall comply with the applicable emission standards for all pollutants for a new spark ignition emergency engine as listed in 40 CFR §60.4233(e) and 40 CFR Part 60 Subpart JJJJ, Table 1 by purchasing an engine certified according to the procedures specified in 40 CFR Part 60 Subpart JJJ for the same model year. [40 CFR §60.4243(b)(1)]
- ii. The Permittee shall operate and maintain the engines to achieve the emission standards as required in 40 CFR §60.4233 over the entire life of the engine. [40 CFR §60.4234]
- iii. The Permittee shall operate and maintain each certified stationary SI internal combustion engine according to the manufacturer's emission related written instructions. [40 CFR §60.4243(a)(1)]
- iv. The Permittee must maintain and operate appropriately the air-to fuel ratio (AFR) controller on each engine in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40 CFR §§60.4243(g)]

#### **Note:**

The Permittee must maintain compliance with these operating limitations in order to maintain exemption from other requirements of 40 CFR Part 60 Subpart JJJJ.

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

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

#### *c. Record Keeping Requirements*

- i. The Permittee shall comply with all record keeping requirements of the General Provisions in 40 CFR §§60.1 through 60.19, inclusive, as specified in 40 CFR Part 60 Subpart JJJJ, Table 3. [40 CFR §60.4246]
- ii. The Permittee shall keep records of maintenance conducted on each engine. [40 CFR §60.4245(a)(2)]
- iii. The Permittee shall keep documentation from the manufacturer certifying compliance with the emission standards in Section III.P.2.a of this Title V permit. [40 CFR §60.4245(a)(3)]

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

- iv. The Permittee shall keep records of all notifications submitted to comply with 40 CFR Part 60 Subpart JJJJ and all documentation supporting any notification.  
[40 CFR §60.4245(a)(1)]

#### *d. Reporting Requirements*

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

### Section III: Applicable Requirements and Compliance Demonstration

#### Q. 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).
23. **Hazardous Air Pollutant (HAP) Emissions:** Annual HAP emissions for the premises shall be less than 10 TPY of a single HAP and less than 25 TPY of any combination of HAPs. The 12 consecutive month record of HAP emissions shall be determined by adding the current month's record to that of the previous 11 months for the premises. [P 098-0056, 098-0061 and 098-0062]



**Section IV: Compliance Schedule**

<b>TABLE IV: COMPLIANCE SCHEDULE</b>				
<b>Emissions Unit</b>	<b>Applicable Regulations</b>	<b>Steps Required for Achieving Compliance (Milestones)</b>	<b>Date by which Each Step is to be Completed</b>	<b>Dates for Monitoring, Record Keeping, and Reporting</b>
		No Steps are required for achieving compliance at this time		

## 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.

## **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 (OES04-2), 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.

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

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

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

Print Enforcement Checklist

Print Compliance Certification

Compliance Certification Table (2018)