



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>	<i>1138/1/98/15</i>
<b>Date Issued</b>	April 30, 2014
<b>Expiration Date</b>	April 30, 2019

**Corporation:**

*The University of Connecticut – Storrs Campus*

**Premises Location:**

*31 LeDoyt Road, Storrs, CT 06269-3055*

**Name of Responsible Official and Title:**

*Susan Herbst, President*

All the following attached pages, 2 through 90, are hereby incorporated by reference into this Title V permit.

/s/ Anne Gobin for \_\_\_\_\_  
Robert Klee  
Commissioner

April 30, 2014  
Date

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## **Title V Operating Permit**

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

## LIST OF ABBREVIATIONS/ACRONYMS

<i>Abbreviation/Acronym</i>	<i>Description</i>
°F	Degree Fahrenheit
AOS	Alternative Operating Scenario
CARB	State of California Air Resources Board
ccf	One hundred cubic feet
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CI	Compression Ignition
CGS	Connecticut General Statutes
CO	Carbon Monoxide
CPMS	Continuous Parameter Monitoring System
CP/OP	Construction Permit/Operating Permit
DEEP	Department of Energy and Environmental Protection
EDR	Emergency Demand Response
EU	Emissions Unit
EPA	Environmental Protection Agency
g/hp-hr	Gram per horsepower 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
ICE	Internal Combustion Engine
ITT	Intent To Test
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
mmHg	Millimeters of Mercury
MW	Megawatts
NG	Natural Gas
NO <sub>x</sub>	Nitrogen Oxides
NSR	New Source Review
O <sub>2</sub>	Oxygen
Pb	Lead
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter less than 10 microns
PM <sub>2.5</sub>	Particulate Matter less than 2.5 microns
ppmvd	Parts per million, volumetric basis dry
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>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: 31 LeDoyt Road, Unit 3055, Storrs, CT 06269-3055  
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 an 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 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 major air emissions units located at the premises are as follows:

#### Central Utility Plant:

- Four registered boilers subject to RCSA section 22a-174-22. Only boiler No. 7 operates under Consent Order No. 8311. This order restricts the operating capacity of boiler No. 7 to a maximum rated capacity of 111.1 MMBtu/hr. These boilers are subject to 40 CFR Part 63 Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources.
- 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.
- Two TECOCHILL CH-1000 natural gas fired chiller non-emergency engines operating under Permit Nos. 098-0027 and 098-0028 and subject to 40 CFR Part 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
- Two 1,250 kW diesel fired emergency engines.
- 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.
- Six 50,000 gallon underground storage tanks for ULSD fuel.

## Section I: Premises Information/Description

### B. PREMISES DESCRIPTION, continued

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.

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.

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.

Additionally, UCONN operates several emergency engines under NSR permits or RCSA section 22a-174-3b. The emergency engines maybe 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.

Solvent cleaning operations are performed using four parts washers, each of which uses aqueous cleaning solutions, located at various locations. These operations are subject to RCSA section 22a-174-20.

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-174-30 and 40 CFR Part 63 Subpart CCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities.

UCONN also operates a Water Pollution Control Facility, a reclaimed water facility, a “less than 90 day” hazardous waste storage area, 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</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  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  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  40 CFR Part 63 Subpart ZZZZ
EU-11	86.25 MMBtu/hr Bigelow Boiler No. 1 Serial No. 12098 Construction date: 1960 <b>Central Utility Plant</b>	N/A	R 098-0014  CP/OP 098-0026 Collateral Conditions  40 CFR Part 63 Subpart JJJJJ
EU-12	86.25 MMBtu/hr Bigelow Boiler No. 2 Serial No. 12274 Construction date: 1963 <b>Central Utility Plant</b>	N/A	R 098-0015  CP/OP 098-0026 Collateral Conditions  40 CFR Part 63 Subpart JJJJJ

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
EU-13	86.25 MMBtu/hr Bigelow Boiler No. 3 Serial No. 12720 Construction date: 1967 <b>Central Utility Plant</b>	N/A	R 098-0016  CP/OP 098-0026 Collateral Conditions  40 CFR Part 63 Subpart JJJJJ
EU-17	111.1 MMBtu/hr Bigelow Boiler No. 7 Serial No. 13001 Construction date: 1971 <b>Central Utility Plant</b>	N/A	R 098-0020  CP/OP 098-0026 Collateral Conditions  Consent Order No. 8311  40 CFR Part 63 Subpart JJJJJ
EU-19	2.50 MMBtu/hr (170 kWe/285 hp*) Onan emergency engine Construction date: pre-1989 <b>Biobehavioral Building No. 4</b>	N/A	40 CFR Part 63 Subpart ZZZZ
EU-20	0.60 MMBtu/hr (30 kWe/50 hp*) Onan emergency engine Construction date: 1971 <b>Ellsworth Hall</b>	N/A	
EU-21	0.60 MMBtu/hr (30 kWe/50 hp*) Onan emergency engine Construction date: 1971 <b>Hale Hall</b>	N/A	
EU-22	0.90 MMBtu/hr (50kWe/84 hp*) Onan emergency engine Construction date: 1970 <b>Putnam Refectory</b>	N/A	
EU-23	1.06 MMBtu/hr (100kWe/168 hp) Kohler emergency engine Construction date: pre-1989 <b>Atwater Laboratory</b>	N/A	
EU-24	2.0 MMBtu/hr (170 kWe/285 hp*) Waukesha emergency engine Construction date: 1979 <b>Babbidge Library</b>	N/A	

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>				
<b>Emissions Unit</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>	
EU-27	0.18 MMBtu/hr (15 kWe/25 hp <sup>*</sup> ) Onan emergency engine Construction date: 1955 <b>Hollister Hall</b>	N/A	40 CFR Part 63 Subpart ZZZZ	
EU-29	0.24 MMBtu/hr (20 kWe/41 hp) Kohler emergency engine Construction date: unknown <b>Bronwell Building (Engineering 3)</b>	N/A		
EU-30	1.81 MMBtu/hr (100 kWe/220 hp) Marathon emergency engine Construction date: 1995 <b>Facilities Management</b>	N/A		
EU-35	0.35 MMBtu/hr (30 kWe/50 hp <sup>*</sup> ) Onan emergency engine Construction date: 1950 <b>Infirmery Building</b>	N/A		
EU-37	0.18 MMBtu/hr (15 kWe/25 hp <sup>*</sup> ) Onan emergency engine Construction date: 1950 <b>Hicks/Grange Hall</b>	N/A		
EU-42	0.18 MMBtu/hr (15 kWe/25 hp <sup>*</sup> ) Onan emergency engine Construction date: 1980 <b>New Fine Arts Building</b>	N/A		
EU-43	0.53 MMBtu/hr (45 kWe/75 hp <sup>*</sup> ) Onan emergency engine Construction date: 1973 <b>WHUS Radio Building</b>	N/A		
EU-48	1.2 MMBtu/hr (80 kWe/150 hp) Kohler emergency engine Construction date: 1974 <b>Whitney Hall</b>	N/A		
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  40 CFR Part 63 Subpart ZZZZ
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 RCSA §22a-174-22  40 CFR Part 63 Subpart ZZZZ
EU-56	2.93 MMBtu/hr (250 kWe/419 hp <sup>*</sup> ) Cummins emergency engine Construction date: 1988 <b>Electric Mobile</b>	N/A	RCSA §22a-174-22  40 CFR Part 63 Subpart ZZZZ	

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
EU-57	2.93 MMBtu/hr (250 kWe/419 hp*) Onan emergency engine Construction date: 1970 <b>Institute of Materials Science</b>	N/A	RCSA §22a-174-22  40 CFR Part 63 Subpart ZZZZ
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 ZZZZ
EU-60	1.08 MMBtu/hr (100 kWe/166 hp) Onan 100 DGDB emergency engine, Serial No. L940564098 Construction date: 1995 <b>Gurleyville Lift Station</b>	N/A	RCSA §22a-174-3b  40 CFR Part 63 Subpart ZZZZ
EU-62	6.44 MMBtu/hr (375 kW/503 hp*) Cummins emergency engine Construction date: 1975 <b>Water High Head Building</b>	N/A	RCSA §22a-174-22  40 CFR Part 63 Subpart ZZZZ
EU-63	4.7 MMBtu/hr (500 kW/671 hp*) Onan 500 DFFB emergency engine Construction date: 1995 <b>Water Pollution Control Facility</b>	N/A	CP/OP 098-0054  40 CFR Part 63 Subpart ZZZZ
EU-66	0.51 MMBtu/hr (35 kWe/66 hp) Onan, Serial No. L940562448, emergency engine Construction date: 1995 <b>WPCF at Eastwood Road</b>	N/A	CP/OP 098-0026 Collateral Conditions  40 CFR Part 63 Subpart ZZZZ
EU-67	0.51 MMBtu/hr (35 kWe/66 hp) Onan, Serial No. L940562446, emergency engine, Construction date: 1995 <b>WPCF at Mansfield Apartments</b>	N/A	CP/OP 098-0026 Collateral Conditions
EU-68	0.51 MMBtu/hr (35 kWe/66 hp) Onan, Serial No. L940562447, emergency engine, Construction date: 1995 <b>WPCF at Northwood Apartments</b>	N/A	
EU-442	6.65 MMBtu/hr Weil-McLain boiler No. 1 Construction date: unknown <b>Putnam Refectory</b>	N/A	RCSA §22a-174-22
EU-443	6.65 MMBtu/hr Weil-McLain boiler No. 2 Construction date: unknown <b>Putnam Refectory</b>	N/A	RCSA §22a-174-22
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 <b>Motor Pool</b>	Vapor Recovery	RCSA §22a-174-20 RCSA §22a-174-30  40 CFR Part 63 Subpart CCCCC

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
EU-552	Solvent Parts Cleaner <b>Motor Pool</b>	N/A	RCSA §22a-174-20
EU-553	Solvent Parts Cleaner <b>Motor Pool</b>	N/A	RCSA §22a-174-20
EU-554	Solvent Parts Cleaner <b>Central Utility Plant</b>	N/A	RCSA §22a-174-20
EU-555	Solvent Parts Cleaner <b>Water Pollution Control Facility</b>	N/A	RCSA §22a-174-20
EU-558	121.2 MMBtu/hr (NG) & 115.5 MMBtu/hr (oil) Boiler No.9, English D-Type boiler Model APP-100-250 Construction date: 1998 <b>Central Utility Plant</b>	Low NOx burners & Flue Gas Recirculation	CP/OP 098-0026  40 CFR Part 60 Subpart Db
EU-559	7.68 MMBtu/hr (765 hp) TECOCHILL CH-1000 Chiller with WAUKESHA L36GLDLE V-12 Low Emission Lean Burn non-emergency engine Construction date: 1999 <b>Central Utility Plant</b>	Oxidation Catalyst	CP/OP 098-0027  40 CFR Part 63 Subpart ZZZZ
EU-560	7.68 MMBtu/hr (765 hp) TECOCHILL CH-1000 Chiller with WAUKESHA L36GLDLE V-12 Low Emission Lean Burn non-emergency engine Construction date: 1999 <b>Central Utility Plant</b>	Oxidation Catalyst	CP/OP 098-0028  40 CFR Part 63 Subpart ZZZZ
EU-565	12 MMBtu/hr (1,250 kWe/1,881 hp) Mitsubishi RM-1250 S12R-PTA emergency engine No. 1 Construction date: 1997 <b>Central Utility Plant</b>	N/A	RCSA §22a-174-3b RCSA §22a-174-22  40 CFR Part 63 Subpart ZZZZ
EU-566	12 MMBtu/hr (1,250 kWe/1,881 hp) Mitsubishi RM-1250 S12R-PTA emergency engine No. 2 Construction date: 1997 <b>Central Utility Plant</b>	N/A	RCSA §22a-174-3b RCSA §22a-174-22  40 CFR Part 63 Subpart ZZZZ
EU-567	1.14 MMBtu/hr (100 kWe/168 hp) Spectrum Detroit Model 100DS emergency engine Construction date: 2001 <b>North Campus Parking Garage</b>	N/A	RCSA §22a-174-3b  40 CFR Part 63 Subpart ZZZZ
EU-568	4.05 MMBtu/hr (325 kWe/531 hp) Cummins emergency engine Construction date: 1999 <b>Ag-Biotech Building</b>	N/A	RCSA §22a-174-3b RCSA §22a-174-22 40 CFR Part 63 Subpart ZZZZ

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
EU-569	3.88 MMBtu/hr (430 hp) Waukesha Model F18GLD chiller non-emergency engine Construction date: 1998 <b>South Campus Chiller Plant</b>	N/A	RCSA §22a-174-22  40 CFR Part 63 Subpart ZZZZ
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 ZZZZ
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  40 CFR Part 63 Subpart ZZZZ
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 RCSA §22a-174-22  40 CFR Part 63 Subpart ZZZZ
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 ZZZZ
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	
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	
EU-587	0.91 MMBtu/hr (55 kWe/92 hp*) Onan emergency engine Construction date: 2002 <b>McMahon Hall</b>	N/A	
EU-588	1.6 MMBtu/hr (100 kWe/173 hp) Caterpillar emergency engine Construction date: 2001 <b>Hilltop (Capstone) Apartments</b>	Catalytic Converter	
EU-591	0.30 MMBtu/hr (17 kWe/37 hp) Kohler Emergency engine Construction date: 2002 <b>Hilltop Dorms</b>	N/A	
EU-598	14.88 MMBtu/hr (1,500 kWe/2,172 hp) Caterpillar - Black start emergency engine Construction date: 2005 <b>Central Utility Plant</b>	N/A	RCSA §22a-174-3b RCSA §22a-174-22 40 CFR Part 63 Subpart ZZZZ

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
EU-599	0.49 MMBtu/hr (35 kWe/57 hp) Cummins emergency engine Construction date: 2004 <b>Poultry Facility</b>	N/A	P 098-0056, 098-0061 and 098-0062 Collateral Conditions  40 CFR Part 63 Subpart ZZZZ
EU-600	7 MW Solar Taurus Model 70 Combustion Turbine with a 60 MMBtu/hr duct burner Construction date: 2004 <b>Cogeneration Facility</b>	Selective Catalytic Reduction, Oxidation Catalyst  Turbine Only: Dry-Low NOx Combustor	P 098-0056  40 CFR Part 60 Subpart Dc (duct burner) and GG (turbine)
EU-601	7 MW Solar Taurus Model 70 Combustion Turbine with a 60 MMBtu/hr duct burner Construction date: 2004 <b>Cogeneration Facility</b>	Selective Catalytic Reduction, Oxidation Catalyst  Turbine Only: Dry-Low NOx Combustor	P 098-0061  40 CFR Part 60 Subpart Dc (duct burner) and GG (turbine)
EU-602	7 MW Solar Taurus Model 70 Combustion Turbine with a 60 MMBtu/hr duct burner Construction date: 2004 <b>Cogeneration Facility</b>	Selective Catalytic Reduction, Oxidation Catalyst  Turbine Only: Dry-Low NOx Combustor	P 098-0062  40 CFR Part 60 Subpart 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 RCSA §22a-174-22  40 CFR Part 63 Subpart ZZZZ
EU-608	0.47 MMBtu/hr (45 hp) Perkins emergency 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	

## Section II: Emissions Units Information

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>			
<b>Emissions Unit</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit, Order, Registration, or Regulation Number</b>
EU-610	0.21 MMBtu/hr (15 kWe/24 hp) Onan emergency engine Construction date: 2000 <b>Soccer Field</b>	N/A	40 CFR Part 63 Subpart ZZZZ
EU-611 thru 622	Nine Laars RHEOS+ Model 1600 and three Laars RHEOS+ Model 2000 boilers <b>Hilltop Apartments</b>	N/A	P 098-0056, 098-0061 and 098-0062 Collateral Conditions
EU-623 thru 1185	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	
EU-1186 thru 1188	Natural gas fired heating equipment <b>Hilltop Suites</b>	N/A	
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  40 CFR Part 60 Subpart IIII
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 RCSA §22a-174-22  40 CFR Part 60 Subpart IIII
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 JJJJ
EU-1285	0.29 MMBtu/hr (20 kW/34 hp <sup>*</sup> ) Generac Emergency engine Construction date: 2012 <b>President's Residence</b>	N/A	P 098-0026 Collateral Condition  40 CFR Part 60 Subpart JJJJ
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 RCSA §22a-174-22  40 CFR Part 60 Subpart IIII
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 JJJJ

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

## Section II: Emissions Units Information

**B. TABLE II.B: GROUPED EMISSIONS UNITS**

<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, 60, 567, 576, 1282: 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, 60, 567, 576</li> <li>• Subject to 40 CFR Part 60 Subpart IIII: 1282</li> <li>• <i>Not subject to RCSA §22a-174-22(b)</i></li> </ul>
<b>GEU-2</b>	<p><b>EU 55, 565, 566, 568, 579, 598, 607, 1283, 1286: Emergency engines</b></p> <ul style="list-style-type: none"> <li>• Operating under RCSA §22a-174-3b(e)</li> <li>• Subject to RCSA §22a-174-22(l)</li> <li>• Subject to 40 CFR Part 63 Subpart ZZZZ: 55, 565, 566, 568, 579, 598, 607</li> <li>• Subject to 40 CFR Part 60 Subpart IIII: 1283, 1286</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 40 CFR Part 63 Subpart JJJJJ</li> <li>• Subject to Consent Order No. 8311: 17</li> </ul>
<b>GEU-4</b>	<p><b>EU 559, 560: TECOCHILL chillers non-emergency engines</b></p> <ul style="list-style-type: none"> <li>• Operating under NSR permits</li> <li>• Subject to 40 CFR Part 63 Subpart ZZZZ</li> </ul>
<b>GEU-5</b>	<p><b>EU 66, 67, 68, 584, 585, 586, 587, 588, 591, 599, 606: Emergency engines</b></p> <ul style="list-style-type: none"> <li>• Subject to 40 CFR Part 63 Subpart ZZZZ</li> <li>• Limited to 500 hrs/yr of operation (collateral conditions in CP/OP 098-0026): 66, 67, 68</li> <li>• Limited to 300 hrs/yr of operation (collateral conditions in CP/OP 098-0026): 584, 585, 586, 587, 588, 591</li> <li>• Limited to 300 hrs/yr of operation (collateral conditions in P 098-0056, 0998-0061 and 098-0062): 599, 606</li> </ul> <p><b>EU 1284 and 1285: Emergency engines</b></p> <ul style="list-style-type: none"> <li>• Subject to 40 CFR Part 60 Subpart JJJJ</li> <li>• Limited to 300 hrs/yr of operation (collateral conditions in CP/OP 098-0026)</li> </ul>
<b>GEU-6</b>	<p><b>EU 552, 553, 554, 555: Solvent parts cleaners</b></p> <ul style="list-style-type: none"> <li>• Subject to RCSA §22a-174-20</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 permits</li> <li>• Subject to 40 CFR Part 60 Subparts Dc (Duct burner) and GG (turbine)</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>EU 611 thru 622: Nine Laars RHEOS+ Model 1600 and three Laars RHEOS+ Model 2000 Natural gas fired boilers – Hilltop Apartments</b> <ul style="list-style-type: none"> <li>• Subject to Collateral Conditions in P 098-0056, 098-0061 and 098-0062</li> </ul>
	<b>EU 623 thru 1185: 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>EU 1186 thru 1188: 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>GEU-9</b>	<b>EU 442, 443: Natural gas fired boilers</b> <ul style="list-style-type: none"> <li>• Subject to RCSA §22a-174-22</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 permits</li> <li>• Subject to RCSA §22a-174-22</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 permits</li> <li>• Subject to 40 CFR Part 63 Subpart ZZZZ</li> </ul>
<b>GEU-12</b>	<b>EU 56, 57, 62: Emergency engines</b> <ul style="list-style-type: none"> <li>• Subject to RCSA §22a-174-22</li> <li>• Subject to 40 CFR Part 63 Subpart ZZZZ</li> <li>• <i>Not subject to former RCSA §22a-174-3 (Regulations applicable at the time of construction)</i></li> </ul>
<b>GEU-13</b>	<b>EU 19, 20, 21, 22, 23, 24, 27, 29, 30, 35, 37, 42, 43, 48, 59, 575, 608, 609, 610, 1314: Emergency engines</b> <ul style="list-style-type: none"> <li>• Subject to 40 CFR Part 63 Subpart ZZZZ: 19, 20, 21, 22, 23, 24, 27, 29, 30, 35, 37, 42, 43, 48, 59, 575, 608, 609, 610</li> <li>• Subject to 40 CFR Part 60 Subpart JJJJ: 1314</li> <li>• <i>Not subject to RCSA §22a-174-3a or 22a-174-22(b)</i></li> </ul>

## Section II: Emissions Units Information

### C. STANDARD OPERATING SCENARIO IDENTIFICATION

#### Standard Operating Scenario (SOS)

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. Chiller engines/chillers: the standard use of the engines is to provide chilled water for cooling various buildings on campus.
3. Boilers: the standard use of the boilers is to provide steam for building heating, hot water and to operate some absorption chillers.
4. 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.
5. Parts cleaners: the standard use of the parts cleaners is to clean miscellaneous metal parts, using aqueous cleaning solutions.
6. 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.
7. Other small heating equipment: the standard use of other small heating equipment is to provide for building heating and hot water.

#### Alternative Operating Scenario (AOS)

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 regulated by this Title V permit.

#### A. GROUPED EMISSIONS UNIT 1 (GEU-1)

- EU-54:** 2.63 MMBtu/hr (370 hp) Kohler diesel fired emergency engine – Commissary Warehouse  
**EU-60:** 1.08 MMBtu/hr (166 hp) Onan diesel fired emergency engine – Gurleyville Lift Station  
**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-1282:** 1.95 MMBtu/hr (274 hp) Caterpillar CD175-2 diesel fired emergency engine Police/Fire Complex

#### Classification:

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

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

##### a. Limitation or Restriction

- i. The Permittee shall operate each emergency engine in an emergency as defined in RCSA §22a-174-22(a)(4). [RCSA §§22a-174-22 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)]

##### 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)]

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

- 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, 60, 567, 576**

#### **Classification:**

- Engine Category: Institutional Emergency
- At the time of this Title V renewal (Application No. 201301874), 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 may operate the emergency stationary RICE for any combination of the following purposes for a maximum of 100 hours per calendar year. [40 CFR §63.6640(f)(2)]
  - A. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the EPA 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.
  - B. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency.

### Section III: Applicable Requirements and Compliance Demonstration

**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.i.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*

- i. 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)]
- ii. The Permittee shall keep records of the notification of the emergency situation, date, start time and end time of each engine operation where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency. [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 IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

**EU 1282**

**Classification:**

- Emergency engine
- At the time of this Title V renewal (Application No. 201301874), EU 1282 is an Emergency Compression Ignition Engine constructed after June 11, 2005 where the engine was manufactured after April 1, 2006 (Model year 2011).
- *The Permittee should re-evaluate the requirements of 40 CFR Part 60 Subpart IIII if any of the above conditions change.*

*a. Limitation or Restriction*

- i. The Permittee shall comply with the emission standards for all pollutants for a new non-road compression ignition engine, of the same model year and maximum engine power as EU 1282 as listed in 40 CFR §60.4202. [40 CFR §60.4205(b)]

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

- ii. The Permittee may operate the emergency stationary RICE for any combination of the following purposes for a maximum of 100 hours per calendar year. [40 CFR §60.4211(f)(2)]
  - A. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the EPA 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.
  - B. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

#### **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)]

### Section III: Applicable Requirements and Compliance Demonstration

#### 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]

#### B. GROUPED EMISSIONS UNIT 2 (GEU-2)

- 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-607<sup>(a)</sup>:** 2.88 MMBtu/hr (383 hp) Cummins natural gas fired emergency engine – Towers Dorms
- 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

<sup>(a)</sup> EU-607 has potential emissions of NO<sub>x</sub> greater than 274 lb/day. [RCSA §22a-174-22(b)(1)(B)]

#### Classification:

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

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

##### a. Limitation or Restriction

- i. The Permittee shall operate each emergency engine in an emergency as defined in RCSA §22a-174-22(a)(4). [RCSA §§22a-174-22 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 schedule 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 is expressly prohibited from operating each 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,” “unhealthy for sensitive groups,” “unhealthy,” or “very unhealthy” unless it meets the requirements of RCSA §22a-174-22(b)(3). [RCSA §22a-174-22(b)(3)]

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

#### *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)]
  - 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*

These emergency engines do not have emission limits for NO<sub>x</sub>. However there are Record Keeping and Monitoring Requirements. [RCSA §22a-174-22(1)]

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

Emergency engines are exempt from the emission testing and monitoring requirements of RCSA §22a-174-22. 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) and 22a-174-22]

#### *c. Record Keeping Requirements*

The Permittee shall make and keep the following records for a minimum of five years; commencing on the date such records were created. [RCSA §22a-174-33(o)(2)]:

### Section III: Applicable Requirements and Compliance Demonstration

- i. Daily records of operating hours of each engine, identifying the operating hours of emergency and non-emergency use. [RCSA §22a-174-22(l)(1)(A)]
- ii. Records of all tune-ups, repairs, replacement of parts and other maintenance. [RCSA §22a-174-22(l)(1)(D)]
- iii. Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22. [RCSA §22a-174-22(l)(1)(E)]
- iv. Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22. [RCSA §22a-174-22(l)(1)(J)]

#### 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, 607**

#### Classification:

- Engine Category: Institutional Emergency
- At the time of this Title V renewal (Application No. 201301874), 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 may operate the emergency stationary RICE for any combination of the following purposes for a maximum of 100 hours per calendar year. [40 CFR §§63.6640(f)(2)]
  - A. Emergency stationary ICE may be operated for maintenance check and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional 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 check 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.
  - B. Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency.

#### 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.

### Section III: Applicable Requirements and Compliance Demonstration

- The 100 hours and any additional approved time used for maintenance checks and readiness testing as described in Section III.B.3.a.i 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.  
[RCSA §22a-174-33(j)(1)(K)(ii)]

*c. Record Keeping Requirements*

- i. 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)]
- ii. The Permittee shall keep records of the notification of the emergency situation, date, start time and end time of each engine operation where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency. [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 IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

##### EU 1283, 1286

##### Classification:

- Emergency engines
- At the time of this Title V renewal (Application No. 201301874), EU 1283 and 1286 are Emergency Compression Ignition Engines constructed after June 11, 2005 where the engines were manufactured after April 1, 2006 (EU 1283 - Model year: 2011, EU 1286 - Model year: 2012).
- *The Permittee should re-evaluate the requirements of 40 CFR Part 60 Subpart IIII if any of the above conditions change.*

*a. Limitation or Restriction*

- i. The permittee shall comply with the emission standards for all pollutants for a new non-road compression ignition engine of the same model year and maximum engine power as EU 1283 and 1286 respectively, as listed in 40 CFR §60.4202. [40 CFR §60.4205(b)]

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- ii. The Permittee may operate the emergency stationary RICE for any combination of the following purposes for a maximum of 100 hours per calendar year. [40 CFR §60.4211(f)(2)
  - A. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the EPA 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.
  - B. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

#### 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.B.4.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.B.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)]

### Section III: Applicable Requirements and Compliance Demonstration

#### 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):

- EU-11:** 86.25 MMBtu/hr dual fired Bigelow boiler No. 1 – Central Utility Plant
- EU-12:** 86.25 MMBtu/hr dual fired Bigelow boiler No. 2 – Central Utility Plant
- EU-13:** 86.25 MMBtu/hr dual fired Bigelow boiler No. 3 – Central Utility Plant
- EU-17:** 111.1 MMBtu/hr dual fired Bigelow boiler No. 7 – Central Utility Plant

#### Classification:

- Registered boilers
- EU-17 subject to Consent Order No. 8311

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

##### a. Limitation or Restriction

Emissions of NO<sub>x</sub> shall not exceed 0.20 lb/MMBTU. [RCSA §22a-174-22(e)(1)]

##### b. Monitoring and Testing Requirements

- i. The Permittee shall conduct NO<sub>x</sub> emission testing for the boilers at least once every five years in compliance with RCSA §22a-174-22. [RCSA §22a-174-22(k)(1)]
- ii. The Permittee shall demonstrate compliance with emission limitations using sampling and analytical procedures approved under 40 CFR Part 60, Appendix A, or under procedures in RCSA §22a-174-5(d). [RCSA §22a-174-22(k)(2)]

##### c. Record Keeping Requirements

The Permittee shall make and keep the following records for a minimum of five years, commencing on the date such records were created. [RCSA §22a-174-33(o)(2)]:

- i. Records of all tune-ups, repairs, replacement of parts and other maintenance. [RCSA §22a-174-22(l)(1)(D)]
- ii. Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22. [RCSA §22a-174-22(l)(1)(E)]
- iii. Records of the dates, times, and places of all emission testing required by RCSA §22a-174-22, the person performing the measurements, the testing methods used, the operating conditions at the time of the testing, and the results of such testing. [RCSA §22a-174-22(l)(1)(H)]
- iv. Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22. [RCSA §22a-174-22(l)(1)(J)]

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

#### *d. Reporting Requirements*

Within 30 days of the completion of emission tests conducted under the requirements of Section III.C.1.b of this Title V permit, the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22(1)(2)]

## **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 the sulfur content percentages by weight as set forth in CGS §16a-21a. [CGS §16a-21a]

#### *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*

- 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*

- 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)]

### Section III: Applicable Requirements and Compliance Demonstration

#### *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 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)]

### **4. Consent Order No. 8311 – EU-17: Bigelow boiler No. 7**

#### *a. Limitation or Restriction*

Maximum Operating Limit: 111.1 MMBtu/hr of heat input

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

If at any time after the issuance of Consent Order No. 8311, the Permittee violates the operating restriction specified in Section III.C.4.a of this Title V permit, the Permittee shall conduct NOx emissions testing of boiler No. 7 within 90 days after the discovery of the exceedance of the operating restriction in accordance with the following: [Consent Order No. 8311 condition (C)(3)]

- i. Not less than 30 days after the discovery of the violation, the Permittee shall submit to the commissioner for his review and written approval an ITT protocol to perform the required emissions testing. The ITT protocol shall include at least:
  - A. Bureau of Air Management Test Form No. 1, "Intent To Test;"
  - B. System operating parameters indicative of the highest operating rate since the last previous stack test or the most recent emissions test witnessed by the Department, whichever is most recent, including, but not limited to hourly fuel firing rate for all fuels burned during the test; and
  - C. Provisions that the Permittee shall perform testing as specified in RCSA §§22a-174-5 and 22a-174-22, including operating boiler No. 7 at no less than 90% of the highest operating rate for each fuel since its most recent NOx emissions test performed in accordance with Consent Order No. 8311 or RCSA §22a-174-22(k).

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

- ii. The Permittee shall perform all testing required by Consent Order No. 8311 in accordance with the approved ITT protocol.
- iii. In conducting and performing the testing required by Consent Order No. 8311, and analyzing the results of such testing, the Permittee shall adhere to methods specified in RCSA §§22a-174-5 and 22a-174-22 and as approved by EPA and the commissioner.
- iv. The Permittee shall schedule all emissions testing so as to allow the commissioner to be present during such testing and independently verify facility operations, air pollution control equipment parameters, and testing procedures.
- v. The Permittee shall conduct NOx emission tests of boiler No. 7 pursuant to RCSA §22a-174-22 unless otherwise required by Consent Order No. 8311 condition (C)(3).

#### *c. Record Keeping Requirements*

- 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 No. 7 is operating in compliance with the maximum operating limit of 111.1 MMBtu/hr of heat input. [Consent Order No. 8311 condition (C)(2)]
- ii. The Permittee shall retain records and supporting documentation as described for a minimum of five years; commencing on the date such records were created. [Consent Order No. 8311 condition (C)(2)]
- iii. All records shall be maintained in accordance with RCSA §§22a-174-4 and 22a-174-22. [Consent Order No. 8311 condition (C)(2)]

#### *d. Reporting Requirements*

Within 30 days after completing any emissions testing required by Consent Order No. 8311, the Permittee shall submit to the commissioner a written report providing the results of such testing. Within 15 days of a notice from the commissioner indicating any deficiencies in such report, the Permittee shall submit a revised report. [Consent Order No. 8311 condition (C)(3)]

### **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

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

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 §63.11201(b)]

- 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 JJJJJ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR §63.11205(a)]

#### *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 JJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that is submitted. [40 CFR §63.11225(c)(1)]
- ii. The Permittee shall keep records that identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned. [40 CFR §63.11225(c)(2)(i)]
- iii. The Permittee shall keep 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 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)]

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#### d. Reporting Requirements

- i. The Permittee shall prepare a five year compliance certification report for the previous calendar year containing the information in a biennial compliance certification report containing the information in 40 CFR §§63.11225(b)(1) and (2). This report shall be prepared by March 1 of 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 4 (GEU-4)

**EU-559:** 7.68 MMBtu/hr (765 hp) TECOCHILL CH-1000 Chiller non-emergency engine with oxidation catalyst - Central Utility Plant

**EU-560:** 7.68 MMBtu/hr (765 hp) TECOCHILL CH-1000 Chiller non-emergency engine with oxidation catalyst - Central Utility Plant

#### Classification:

- Operating under CP/OP 098-0027, 098-0028

#### 1. Fuel Type and Consumption

##### a. Limitation or Restriction

- i. The Permittee shall only burn natural gas. [CP/OP 098-0027, 098-0028]
- ii. Maximum fuel consumption over any consecutive 12 month period shall not exceed 65 MMft<sup>3</sup> total for EU-559 and EU-560 combined. [CP/OP 098-0027, 098-0028]

##### b. Monitoring and Testing Requirements

The Permittee shall use a fuel metering device to continuously monitor fuel feed to EU-559 and EU-560. [CP/OP 098-0027, 098-0028]

##### c. Record Keeping Requirements

The Permittee shall keep records of annual fuel consumption. Annual fuel consumption shall be based on any consecutive 12 month period and shall be determined by adding 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 098-0027, 098-0028]

### 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)]

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

#### a. Limitation or Restriction

##### i. PM<sub>10</sub>: [CP/OP 098-0027, 098-0028]

A. Emissions of PM<sub>10</sub> shall not exceed 0.44 lb/hr and 0.06 lb/MMBtu for EU-559 or EU-560.

B. Emissions of PM<sub>10</sub> shall not exceed 1.94 TPY total for EU-559 and EU-560, combined.

##### ii. SO<sub>x</sub>: [CP/OP 098-0027, 098-0028]

A. Emissions of SO<sub>x</sub> shall not exceed 0.52 lb/hr and 0.07 lb/MMBtu for EU-559 or EU-560.

B. Emissions of SO<sub>x</sub> shall not exceed 2.28 TPY total for EU-559 and EU-560, combined.

##### iii. CO: [CP/OP 098-0027, 098-0028]

A. Emissions of CO shall not exceed 0.31 lb/hr and 0.042 lb/MMBtu for EU-559 or EU-560.

B. Emissions of CO shall not exceed 1.36 TPY total for EU-559 and EU-560, combined.

##### iv. VOC: [CP/OP 098-0027, 098-0028]

A. Emissions of VOC shall not exceed 0.74 lb/hr and 0.10 lb/MMBtu for EU-559 or EU-560.

B. Emissions of VOC shall not exceed 3.24 TPY total for EU-559 and EU-560, combined.

#### 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 shall demonstrate compliance with the emission limits of Section III.D.2 of this Title V permit by calculating the emission rates using the manufacturer's emission factors provided by TECOCHILL (Chiller manufacturer). [CP/OP 098-0027, 098-0028]

ii. The Permittee shall retain all required records and reports for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. [CP/OP 098-0027, 098-0028]

### 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)]

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

#### a. Limitation or Restriction

- i. Emissions of NO<sub>x</sub> shall not exceed 1.11 lb/hr and 0.15 lb/MMBtu for EU-559 or EU-560. [CP/OP 098-0027, 098-0028]
- ii. Emissions of NO<sub>x</sub> shall not exceed 4.86 TPY total for EU-559 and EU-560, combined. [CP/OP 098-0027, 098-0028]

#### b. Monitoring and Testing Requirements

- i. The Permittee shall conduct emission tests at least once every five years. Compliance with NO<sub>x</sub> emission limitations shall be determined in accordance with RCSA §22a-174-5. [RCSA §22a-174-22(k)(1)]
- ii. The Permittee shall demonstrate compliance with NO<sub>x</sub> limitations using sampling and analytical procedures approved under 40 CFR Part 60, Appendix A or under procedures in RCSA §22a-174-5(d). [RCSA §22a-174-22(k)(2)]

#### c. Record Keeping Requirements

The Permittee shall make and keep the following records for a minimum of five years; commencing on the date such records were created. [RCSA §22a-174-33(o)(2)]:

- i. Records of all tune-ups, repairs, replacement of parts and other maintenance. [CP/OP 098-0027, 098-0028]
- ii. Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22. [RCSA §22a-174-22(l)(1)(E)]
- iii. Records of the dates, times, and places of all emission testing required by RCSA §22a-174-22, the person performing the measurements, the testing methods used, the operating conditions at the time of the testing, and the results of such testing. [RCSA §22a-174-22(l)(1)(H)]

#### d. Reporting Requirements

- i. Within 30 days of the completion of emission tests conducted under the requirements of Section III.D.3.b of this Title V permit, the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22(l)(2)]
- ii. On or before April 15 of each year, the Permittee shall submit a report on NO<sub>x</sub> emissions on a form provided by the commissioner. [CP/OP 098-0027, 098-0028]
- 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)]

### Section III: Applicable Requirements and Compliance Demonstration

#### 4. 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
- Non-remote engines that operate more than 24 hours per year
- *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. CO:

The average concentration of CO in the exhaust emissions from each chiller shall be less than or equal to 47 ppmvd at 15 percent O<sub>2</sub>, or, the average reduction in CO emissions by the oxidation catalyst shall be 93% or more. [40 CFR §§63.6630 and 63.6640, Tables 5 and 6]

##### ii. Oxidation Catalyst Inlet Temperature:

A. Except for periods of startup, the oxidation catalyst inlet temperature (4 hour rolling average) shall be greater than 450 °F and less than or equal to 1,350 °F, or, the chiller engine must immediately shut down if the oxidation catalyst inlet temperature exceeds 1,350 °F. [40 CFR §§63.6630 and 63.6640, Tables 5 and 6]

B. The Permittee has the following options:  
[40 CFR Part 63 – Table 5, Option 13.i and ii and Table 6, Option 14.i, ii and iii]

1. Install, operate and maintain a CPMS to continuously monitor catalyst inlet temperature according to the requirements of 40 CFR §63.6625(b), or

2. Install, operate and maintain equipment to automatically shutdown the engine if the catalyst inlet temperature exceeds 1,350 °F.

iii. At all times, the chillers, including associated air pollution control equipment and monitoring equipment, must be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR §63.6605(b)]

iv. If the results of the annual compliance demonstration for CO emissions show that the emissions exceed the levels specified, the chiller engine must be shut down as soon as safely possible and appropriate corrective action must be taken in accordance with 40 CFR §63.6640(c)(7). [40 CFR §63.6640]

v. During periods of startup, minimize the amount of each chiller engine's time spent at idle and minimize each engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR §§63.6603(a) and 63.6625(h), Table 2d – Option 9]

vi. The Permittee must conduct an annual compliance demonstration in accordance with 40 CFR §63.6640. [40 CFR §63.6640]

### Section III: Applicable Requirements and Compliance Demonstration

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

- i. To show compliance with the monitoring and testing requirements for CO, the Permittee must conduct an annual compliance demonstration in accordance with the requirements of 40 CFR §63.6640(c). [40 CFR §63.6640, Table 6 – Option 14.i]
- ii. To show compliance with the monitoring and testing requirements for the oxidation catalyst inlet temperature, the Permittee shall show compliance in accordance with 40 CFR §63.6625(b). [40 CFR §63.6625]

#### *c. Record Keeping Requirements*

- i. The Permittee shall keep a copy of each notification and report submitted to comply with requirements of 40 CFR Part 63 subpart ZZZZ, including all documentation supporting any initial notification or notification of compliance status. [40 CFR §63.6655(a)(1)]
- ii. The Permittee shall keep a record of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment. [40 CFR §63.6655(a)(2)]
- iii. The Permittee shall keep records of performance tests and performance evaluations as required in 40 CFR §63.10(b)(2)(viii). [40 CFR §63.6655(a)(3)]
- iv. The Permittee shall keep records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR §63.6655(a)(4)]
- v. The Permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR §63.6605(b), including corrective actions to restore the malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR §63.6655(a)(5)]
- vi. The Permittee must keep records in accordance with 40 CFR §63.6655 for each CPMS used to continually monitor catalyst inlet temperature. [40 CFR §63.6655(a)(5)]

#### *d. Reporting Requirements*

- i. The Permittee must report all deviations and semiannual compliance reports in accordance with 40 CFR §63.6650. [40 CFR §63.6650]
- ii. The permittee must submit a Notification of Intent to conduct a performance test to EPA at least 60 calendar days before the performance test is scheduled to begin. [40 CFR §§63.9(e) and 63.6645(a)]
- iii. If the annual CO compliance demonstration was conducted during the reporting period, the Permittee must submit the results of the annual CO compliance demonstration to the EPA Administrator semiannually in accordance with 40 CFR §63.6650(a). The compliance report must contain information in accordance with 40 CFR §63.6650(c). [40 CFR §63.6650, Table 7]

### **E. GROUPED EMISSIONS UNIT 5 (GEU-5)**

- EU-66:** 0.51 MMBtu/hr (47 hp) Onan diesel fired emergency engine - WPCF Eastwood Road  
**EU-67:** 0.51 MMBtu/hr (47 hp) Onan diesel fired emergency engine – WPCF Mansfield Apartments  
**EU-68:** 0.51 MMBtu/hr (47 hp) Onan diesel fired emergency engine – WPCF Northwood Apartments  
**EU-584:** 2.19 MMBtu/hr (215 hp) Caterpillar LPG fired emergency engine –Alumni Quad

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- EU-585:** 1.09 MMBtu/hr (107 hp) Kohler LPG fired emergency engine – Buckley Hall  
**EU-586:** 0.90 MMBtu/hr (80 hp) Kohler LPG fired emergency engine – Shippee Hall  
**EU-587:** 0.91 MMBtu/hr (74 hp) Onan LPG fired emergency engine – McMahon Hall  
**EU-588:** 1.6 MMBtu/hr (134 hp) Caterpillar natural gas fired emergency engine – Hilltop (Capstone) Apartments  
**EU-591:** 0.30 MMBtu/hr (23 hp) Kohler natural gas fired emergency engine – Hilltop Dorms  
**EU-599:** 0.49 MMBtu/hr (47 hp) Cummins natural gas fired emergency engine – Poultry Facility  
**EU-606:** 0.79 MMBtu/hr (80 hp) Cummins natural gas fired emergency engine – Burton Football Complex  
**EU-1284:** 2.12 MMBtu/hr (201 hp) Olympian LPG fired emergency engine – Floriculture Building  
**EU-1285:** 0.29 MMBtu/hr (27 hp) Generac natural gas fired emergency engine – President’s Residence

#### Classification:

- Emergency engines operating under collateral conditions in CP/OP 098-0026, P 098-0056, 098-0061 and 098-0062
- *Not subject to RCSA §§22a-174-3a or 22a-174-22(b)*

#### 1. Maximum Hours of Operation

##### a. Limitation or Restriction

- Collateral Condition in CP/OP 098-0026:** EU 584, 585, 586, 587, 588, 591, 1284, 1285:  
The Permittee shall not operate each engine for more than 300 hours over any consecutive 12 month period.
- Collateral condition in Permit Nos. 098-0056, 098-0061 and 098-0062:** EU 599, 606:  
The Permittee shall not operate each engine for more than 300 hours over any consecutive 12 month period.
- Collateral condition in CP/OP 098-0026:** EU 66, 67, 68:  
The Permittee shall not operate the engines for more than 500 hours over any consecutive 12 month period.
- The Permittee shall only operate the emergency engines in an emergency as defined in RCSA §22a-174-22(a)(4). [RCSA §§22a-174-22 and 22a-174-33(j)(1)(K)(ii)]

##### b. Monitoring and Testing Requirements

The Permittee shall monitor monthly and annual operating hours.  
[CP/OP 098-0026, P 098-0056, 098-0061, 098-0062]

##### c. Record Keeping Requirements

- The Permittee shall keep records of monthly and annual operating hours. Annual operating hours shall be based on any 12 consecutive month time period and shall be determined by adding the current month’s operating hours to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.  
[CP/OP 098-0026, P 098-0056, 098-0061, 098-0062]

### Section III: Applicable Requirements and Compliance Demonstration

- 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. 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**

#### Classification:

- Engine Category: Institutional Emergency
- At the time of this Title V renewal (Application No. 201301874), 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 is prohibited from operating the emergency stationary RICE in any operation other than emergency operation, maintenance and testing and operation in nonemergency situations for 50 hours per years. [40 CFR §63.6640(f)]
- ii. The Permittee may operate the emergency stationary RICE for any combination of the purposes specified in Sections III.E.2.a.ii.A and B of this Title V permit for a maximum of 100 hours per calendar year. [40 CFR §§63.6640(f)(2)(i) and (iii)]
  - A. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the EPA 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.
  - B. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency.
- iii. 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 nonemergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in Section III.E.2.a.ii of this Title V permit. [40 CFR §63.6640(f)(4)]

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**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.E.2.a.ii of this Title V permit shall count towards the hours of operation in Sections III.E.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.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 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)]
- ii. The Permittee shall keep records of the notification of the emergency situation, date, start time and end time of each engine operation where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency. [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 JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

#### EU 1284, 1285

**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 1284 and 1285 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.*

*a. Limitation or Restriction*

- i. **EU 1284:** The Permittee shall comply with the following emission standards: [40 CFR §60.4233(e) and 40 CFR Part 60 Subpart JJJJ, Table 1]

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- A. NO<sub>x</sub> – 2.0 g/hp-hr or 160 ppmvd @ 15% O<sub>2</sub>
  - B. CO – 4.0 g/hp-hr or 540 ppmvd @ 15% O<sub>2</sub>
  - C. VOC – 1.0 g/hp-hr or 86 ppmvd @ 15% O<sub>2</sub> (not including formaldehyde emissions)
- ii. **EU 1285:** The Permittee shall comply with the following emission standards: [40 CFR §60.4233(d) and 40 CFR Part 60 Subpart JJJJ, Table 1]
    - A. NO<sub>x</sub> + HC – 10 g/hp-hr
    - B. CO – 387 g/hp-hr
  - iii. The Permittee shall comply with the limits in Sections III.E.3.a.i and ii of this Title V permit 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)]
  - iv. 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]
  - v. The Permittee shall operate and maintain the each certified stationary SI internal combustion engine according to the manufacturer's emission related written instructions. [40 CFR §60.4243(a)(1)]
  - vi. The Permittee may operate the emergency stationary RICE for any combination of the following purposes for a maximum of 100 hours per calendar year: [40 CFR §§60.4243(d)(i) and (iii)]
    - A. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of the emergency engine beyond 100 hours per calendar year.
    - B. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency.
  - vii. Emergency stationary RICE may be operated for up to 50 hours per calendar year in nonemergency situations. The 50 hours of operation in nonemergency 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.
- The 100 hours and any additional approved time used for maintenance checks and readiness testing as described in Section III.E.3.a.vi of this Title V permit shall count towards the hours of operation in Section III.E.1.a.i of this Title V permit.

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

Record keeping specified in Section III.E.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 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 to demonstrate compliance with the emissions standards in Sections III.E.3.a.i and ii 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]

#### *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]

### **F. GROUPED EMISSIONS UNIT 6 (GEU-6)**

**EU 552:** Solvent Parts Cleaners – Motor Pool

**EU 553:** Solvent Parts Cleaners – Motor Pool

**EU 554:** Solvent Parts Cleaners – Central Utility Plant

**EU 555:** Solvent Parts Cleaners – Water Pollution Control Facility

#### **1. Vapor Pressure**

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

The Permittee shall use only solvent that has a vapor pressure less than or equal to 1.0 mmHg at 20 degrees Celsius. [RCSA §22a-174-20(1)(3)]

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

Record keeping specified in Section III.F.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 for a minimum of five years, commencing on the date such records were created. [RCSA §22a-174-20(1)(3)(J)]:

- i. Type of solvent used, including a description of the solvent and the solvent name;
- ii. The vapor pressure of the solvent in mmHg measured at 20 degrees Celsius (68 degrees Fahrenheit);

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- iii. The percent VOC content by weight; and
- iv. The amount of solvent added to each unit on a monthly basis.

#### 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 7 (GEU-7)

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

#### 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. 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 P 098-0056, 098-0061 and 098-0062, 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 P 098-0056, 098-0061 and 098-0062 combined.
  - B. Duct burners: total of 1,410.54 MMcf over any consecutive 12 month period for P 098-0056, 098-0061 and 098-0062, combined.
- iii. Sulfur Content in Fuel Oil and Natural Gas [P 098-0056, 098-0061, 098-0062]
  - A. Combustion turbines: No. 2 fuel oil: 0.05% by weight, dry basis.
  - B. Combustion turbines and duct burners: natural gas: maximum sulfur content shall not exceed 20.0 grains/100 scf.

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#### iv. Continuous Emission Monitoring Requirements [P 098-0056, 098-0061, 098-0062]

##### A. Combustion turbines:

1. Operational Parameter: fuel flow to turbine
2. Averaging times: continuous

##### B. Duct burners:

1. Operational Parameter: fuel flow to duct burner
2. Averaging times: continuous

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

The Permittee shall install a fuel-metering device to continuously monitor fuel flow to the turbine and duct burner. [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 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 60 Part 60 Subpart GG]
- 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)]

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### 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 P 098-0056, 098-0061, 098-0062 combined. [P 098-0056, 098-0061, 098-0062]

#### b. Monitoring and Testing Requirements

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

- 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/hrs 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 P 098-0056, 098-0061, 098-0062 combined.
  - C. Natural gas: duct burners: Emissions of PM/PM<sub>10</sub> shall not exceed 0.44 lb/hr for each duct burner.

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- 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 P 098-0056, 098-0061, 098-0062.
- 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 P 098-0056, 098-0061, 098-0062 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 P 098-0056, 098-0061, 098-0062.
  - 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 P 098-0056, 098-0061, 098-0062 combined.
    - 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 P 098-0056, 098-0061, 098-0062.
  - 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.

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4. Emissions of CO shall not exceed 7.73 TPY for P 098-0056, 098-0061, 098-0062 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 P 098-0056, 098-0061, 098-0062.
- 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 P 098-0056, 098-0061, 098-0062 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 P 098-0056, 098-0061, 098-0062 combined.
- vi. Ammonia: [P 098-0056, 098-0061, 098-0062]

Emissions of Ammonia shall not exceed 10 ppmvd at 15% O<sub>2</sub>.

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

The Permittee shall conduct CO, PM<sub>10</sub> and Ammonia emissions test every five years from the date of the initial performance test. [P 098-0056, 098-0061, 098-0062]

#### *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)]

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

##### a. Limitation or Restriction

- 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 Permit 098-0056, 098-0061, 098-0062 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 P 098-0056, 098-0061, 098-0062. [P 098-0056, 098-0061, 098-0062]

##### b. Monitoring and Testing Requirements

- i. The Permittee shall conduct NO<sub>x</sub> emissions tests for the combustion turbines and duct burners every five years from the date of the initial performance test. Stack testing is required for all fuels and for combined operations of the turbine and duct burner to show compliance with the allowable emission limits on Section III.G of this Title V permit. [P 098-0056, 098-0061, 098-0062]
- ii. The Permittee shall demonstrate compliance with emission limitations from RCSA §22a-174-22 using sampling and analytical procedures approved under 40 CFR Part 60, Appendix A or under procedures in RCSA §22a-174-5(d). [RCSA §22a-174-22 (k)(2)]
- iii. Compliance with the emission limitations of RCSA §22a-174-22 shall be determined based on the average of three one hour tests; each performed over a consecutive 60 minute period and conducted in accordance with RCSA §22a-174-5. Emission testing for NO<sub>x</sub> shall be conducted once every five years from the date of the previous test or five years from the date the previous test was due, whichever is earlier. [RCSA §22a-174-22(k)(1)]

##### 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]

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- ii. 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]
- iii. 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]
- iv. 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]
- v. The Permittee shall keep copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22. [RCSA §22a-174-22(l)(1)(E)]
- vi. The Permittee shall keep records of all tune-ups, repairs, replacement of parts and other maintenance done on each combustion turbine and duct burner. [RCSA §22a-174-22(l)(1)(D)]
- vii. The Permittee shall keep records of the dates, times, and places of all emission testing done to comply with RCSA §22a-174-22, the persons performing the measurements, the testing methods used, the operating conditions at the time of the testing, and the results of such testing.  
[RCSA §22a-174-22(l)(1)(H)]

#### d. Reporting Requirements

Within 30 days of the completion of NO<sub>x</sub> emission tests, the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22(l)(2)]

### H. GROUPED EMISSIONS UNIT 8 (GEU-8)

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

**Subgroup 1: EU 611-622:** Nine Laars RHEOS+ Model 1600 and three Laars RHEOS+ Model 2000 natural gas fired boilers – Hilltop Apartments

**Subgroup 2: EU 623-1185:** 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: EU 1186-1188:** Natural gas fired heating equipment – Hilltop Suites

#### 1. Fuel Consumption

##### a. Limitation or Restriction

- i. Subgroup 1: EU 611-622: Total natural gas consumption over any consecutive 12 month period shall not exceed 536,112 ccf for the 12 Laars boilers located at Hilltop Apartments, combined.

### Section III: Applicable Requirements and Compliance Demonstration

- ii. Subgroup 2: EU 623-1185: 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.
- iii. Subgroup 3: EU 1186-1188: 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.

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

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

#### 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. 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]
- 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 and 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)]

### I. GROUPED EMISSIONS UNIT 9 (GEU-9)

**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

#### **Classification:**

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

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

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

Emissions of NO<sub>x</sub> shall not exceed 0.20 lb/MMBtu. [RCSA §22a-174-22(e)(1)]

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

- i. The Permittee shall conduct NO<sub>x</sub> emission tests for each boiler at least once every five years. Compliance with the NO<sub>x</sub> emission limitations shall be determined in accordance with RCSA §22a-174-5. [RCSA §22a-174-22(k)(1)]
- ii. The Permittee shall demonstrate compliance with NO<sub>x</sub> emission limitations using sampling and analytical procedures approved under 40 CFR Part 60, Appendix A or under procedures in RCSA §22a-174-5(d). [RCSA §22a-174-22(k)(2)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall keep records of all tune-ups, repairs, replacements of parts and other maintenance. [RCSA §22a-174-22(l)(1)(D)]
- ii. The Permittee shall keep records of the dates, times and places of all emission testing required, the persons performing the measurements, the testing method used, the operating conditions at the time of testing, and the results of such testing. [RCSA §22a-174-22(l)(1)(H)]
- iii. The Permittee shall keep copies of all documents submitted to the commissioner. [RCSA §22a-174-22(l)(1)(E)]
- iv. The Permittee shall retain all records and reports produced for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the administrator. [RCSA §22a-174-22(l)(5)]

#### *d. Reporting Requirements*

Within 30 days of the completion of emission tests, the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22(l)(2)]

### **J. GROUPED EMISSIONS UNIT 10 (GEU-10)**

- 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 permits
- Subject to RCSA §22a-174-22(l)

### **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]

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

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

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

#### *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 retain all required records and reports for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or Administrator.  
[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*

A. EU-1, 9: shall not exceed 0.3% by weight, dry basis.  
[CP/OP 098-0011, 098-0019]

B. EU-2, 63: shall not exceed 0.05% by weight, dry basis.  
[CP/OP 098-0012, 098-0054]

#### *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)]

### Section III: Applicable Requirements and Compliance Demonstration

#### 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 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 retain all required records and reports for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or Administrator.  
[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. 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]
- ii. 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]
- iii. 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]

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- iv. 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]
- v. 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.J.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 098-0011, 098-0012, 098-0019, 098-0054]
- ii. The Permittee shall retain all required records and reports for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or Administrator. [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:**

The revision to RCSA §22a-174-22 became effective on June 3, 2013 making the 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. 201301874).

- i. The Permittee is expressly prohibited from operating the emergency engines for routine, scheduled testing or maintenance on any day for which the commissioner has forecast that ozone levels will be "moderate to unhealthy for sensitive groups," "unhealthy for sensitive groups," "unhealthy," or

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

“very unhealthy” unless it meets the requirements of RCSA §22a-174-22(b)(3).  
[RCSA §§22a-174-22(b)(3) and 22a-174-33(j)(1)(K)(ii)]

- ii. The Permittee shall only operate the emergency engines in an emergency as defined in RCSA 22a-174-22(a). [RCSA §§22a-174-22(a) and 22a-174-33(j)(1)(K)(ii)]

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

Emergency engines are exempt from the emission testing and monitoring requirements of RCSA §22a-174-22. Record keeping specified in Section III.J.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-174-22(b)(3)]

#### *c. Record Keeping Requirements*

The Permittee shall make and keep the following records for a minimum of five years; commencing on the date such records were created: [CP/OP 098-0011, 098-0012, 098-0019, 098-0054]

- 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. Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22.  
[RCSA §22a-174-22(l)(1)(E)]
- iv. Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22. [RCSA §22a-174-22(l)(1)(J)]

#### *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)]

### **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. 201301874), 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.*

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

#### *a. Limitation or Restriction*

- i. The Permittee may operate the emergency stationary RICE for any combination of the following purposes for a maximum of 100 hours per calendar year. [40 CFR §63.6640(f)(2)]
  - A. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the EPA 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.
  - B. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency.

#### **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.J.5.a.i.A of this Title V permit shall count towards the hours of operation in Sections III.J.1.a.i and ii of this Title V permit.

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

Record keeping specified in Section III.J.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 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)]
- ii. The Permittee shall keep records of the emergency situation, date, start time and end time of each engine operation where there is a deviation of voltage or frequency of 5% or greater below the standard voltage or frequency. [40 CFR §63.6655(f)]

#### *d. Reporting Requirements*

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

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### K. GROUPED EMISSIONS UNIT 11 (GEU-11)

**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 (200 hp) Cummins No. 2 fuel oil fired emergency engine – Gampel Pavillion

#### **Classification:**

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

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

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

- i. 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]
- ii. The Permittee shall only operate the emergency engines in an emergency as defined in RCSA §22a-174-22(a). [RCSA §§22a-174-22(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*

- 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 098-0015, 098-0018]
- ii. The Permittee shall retain all required records and reports for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or Administrator. [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)]

#### **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 fuel sulfur content in the fuel shall not exceed 0.3% by weight, dry basis. [CP/OP 098-0015, 098-0018]

### Section III: Applicable Requirements and Compliance Demonstration

#### 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*

- 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 the permit, 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]
- 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]

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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.K.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 retain all required records and reports for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or Administrator. [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. 201301874), 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 may operate the emergency stationary RICE for any combination of the following purposes for a maximum of 100 hours per calendar year. [40 CFR §63.6640(f)(2)]
  - A. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the EPA 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.

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- B. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency.

**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. K.4.a.i.A of this Title V permit shall count towards the hours of operation in Section III.K.1.a of this Title V permit.

*b. Monitoring and Testing Requirements*

Record keeping specified in Section III.K.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 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)]
- ii. The Permittee shall keep records of the notification of the emergency situation, date, start time and end time of each engine operation where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency. [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)]

### L. GROUPED EMISSIONS UNIT 12 (GEU-12)

- EU-56:** 2.93 MMBtu/hr (419 hp) Cummins diesel fired emergency engine - Electric Mobile  
**EU-57:** 2.93 MMBtu/hr (419 hp) Onan diesel fired emergency engine – Institute of Material Science  
**EU-62:** 6.44 MMBtu/hr (629 hp) Cummins diesel fired emergency engine – Water High Head Building

**Classification:**

- Emergency engines subject to RCSA §22a-174-22
- *Not subject to RCSA §22a-174-3 (Regulations applicable at the time of construction, construction dates: 1988, 1970 and 1975)*

#### 1. Non-emergency Operation, Operational Conditions and NOx

*a. Limitation or Restriction*

- i. The Permittee is expressly prohibited from operating each emergency engine for routine, schedule testing or maintenance on any day for which the commissioner has forecast that ozone levels will be “moderate to unhealthy for sensitive groups,” “unhealthy for sensitive groups,” “unhealthy,” or “very

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

unhealthy” unless it meets the requirements of RCSA §22a-174-22(b)(3). [RCSA §22a-174-22(3)(b)]

- ii. The emergency engines do not have emission limits for NOx. However there are Record Keeping and Monitoring Requirements. [RCSA §22a-174-22(l)]
- iii. The Permittee shall only operate the emergency engines in an emergency as defined in RCSA §22a-174-22(a). [RCSA §§22a-174-22(a) and 22a-174-33(j)(1)(K)(ii)]

#### *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) and 22a-174-22(b)(3)]

#### *c. Record Keeping Requirements*

The Permittee shall make and keep the following records for a minimum of five years; commencing on the date such records were created. [RCSA §22a-174-33(o)(2)]:

- i. Daily records of operating hours of each engine, identifying the operating hours of emergency and non-emergency use. [RCSA §22a-174-22(l)(1)(A)]
- ii. Records of all tune-ups, repairs, replacement of parts and other maintenance. [RCSA §22a-174-22(l)(1)(D)]
- iii. Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22. [RCSA §22a-174-22(l)(1)(E)]
- iv. Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22. [RCSA §22a-174-22(l)(1)(J)]

#### *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:**

- Engine Category: Institutional Emergency
- At the time of this Title V renewal (Application No. 201301874), 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.*

### Section III: Applicable Requirements and Compliance Demonstration

#### 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 each emergency stationary RICE for any combination of the following purposes for a maximum of 100 hours per calendar year. [40 CFR §63.6640(f)(2)]
    1. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the EPA 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.
    2. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency.

**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.L.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 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)]
- ii. The Permittee shall keep records of the notification of the emergency situation, date, start time and end time of each engine operation where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency. [40 CFR §63.6655(f)]

#### d. *Reporting Requirements*

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

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### M. GROUPED EMISSIONS UNIT 13 (GEU-13)

- 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-21:** 0.60 MMBtu/hr (50 hp) Onan natural gas fired emergency engine – Hale Hall
- EU-22:** 0.90 MMBtu/hr (84 hp) Onan natural gas fired emergency engine – Putnam Refectory
- EU-23:** 1.06 MMBtu/hr (168 hp) Kohler LPG fired emergency engine – Atwater Laboratory
- EU-24:** 2.0 MMBtu/hr (285 hp) Waukesha LPG fired emergency engine – Babbidge Library
- EU-27:** 0.18 MMBtu/hr (25 hp) Onan LPG fired emergency engine – Hollister Hall
- EU-29:** 0.24 MMBtu/hr (41 hp) Kohler LPG fired emergency engine – Bronwell Building (Engineering 3)
- EU-30:** 1.81 MMBtu/hr (220 hp) Marathon LPG fired emergency engine – Facilities Management
- EU-35:** 0.35 MMBtu/hr (50 hp) Onan LPG fired emergency engine – Infirmary Building
- EU-37:** 0.18 MMBtu/hr (25 hp) Onan LPG fired emergency engine – Hicks/Grange Hall
- EU-42:** 0.18 MMBtu/hr (25 hp) Onan LPG fired emergency engine – New Fine Arts Building
- EU-43:** 0.53 MMBtu/hr (75 hp) Onan LPG fired emergency engine – WHUS Radio Building
- EU-48:** 1.2 MMBtu/hr (150 hp) Kohler natural gas fired emergency engine – Whitney Hall
- EU-59:** 0.29 MMBtu/hr (66 hp) Kohler emergency diesel engine – Jorgensen Auditorium
- EU-575:** 0.65 MMBtu/hr (82 hp) Kohler LPG fired emergency engine – Field House
- EU-608:** 0.47 MMBtu/hr (45 hp) Perkins emergency diesel engine – Ice Rink
- EU-609:** 0.35 MMBtu/hr (82hp) Kohler LPG fired emergency engine – Horse Barn Lift Station
- EU-610:** 0.14 MMBtu/hr (24 hp) Onan emergency diesel engine – Soccer Field
- EU-1314:** 1.95 MMBtu/hr (225 hp) Cummins natural gas fired emergency engine – Young Building

#### Classification:

- Engine Category: Institutional Emergency
- *Not subject to RCSA §§22a-174-3a or 22a-174-22(b)*
- At the time of this Title V renewal (Application No. 201301874), 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.*

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

##### 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 any combination of the following purposes for a maximum of 100 hours per calendar year. [40 CFR §63.6640(f)(2)]
    1. Emergency stationary RICE may be operated for maintenance checks and readiness testing,

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

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 EPA 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.

2. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency.
  - 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 maintenance and testing provided in Section III.M.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.M.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 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)]
- ii. The Permittee shall keep records of the notification of the emergency situation, date, start time and end time of each engine operation where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency. [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 Compression Ignition Internal Combustion Engines**

### **EU-1314**

**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 1284 and 1285 meet the requirements of 40 CFR Part 63 Subpart ZZZZ by complying with 40 CFR Part 60 Subpart JJJJ.

### Section III: Applicable Requirements and Compliance Demonstration

- *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 following emission standards: [40 CFR §60.4233(e) and 40 CFR Part 60 Subpart JJJJ, Table 1]
  - A. NO<sub>x</sub> – 2.0 g/hp-hr or 160 ppmvd @ 15% O<sub>2</sub>
  - B. CO – 4.0 g/hp-hr or 540 ppmvd @ 15% O<sub>2</sub>
  - C. VOC – 1.0 g/hp-hr or 86 ppmvd @ 15% O<sub>2</sub> (not including formaldehyde emissions)
- ii. The Permittee shall comply with the limits in Sections III.M.2.a of this Title V permit 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)]
- iii. 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]
- iv. The Permittee shall operate and maintain the each certified stationary SI internal combustion engine according to the manufacturer's emission related written instructions. [40 CFR §60.4243(a)(1)]
- v. There is no limit on the use of the emergency stationary RICE in emergency situations. [40 CFR §§60.4243(d)(1)]
- vi. The Permittee may operate the emergency stationary RICE for any combination of the following purposes for a maximum of 100 hours per calendar year: [40 CFR §§60.4243(d)(i) and (iii)]
  - A. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of the emergency engine beyond 100 hours per calendar year.
  - B. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency.
- vii. Emergency stationary RICE may be operated for up to 50 hours per calendar year in nonemergency situations. The 50 hours of operation in nonemergency 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.M.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)]

### Section III: Applicable Requirements and Compliance Demonstration

#### 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 to demonstrate compliance with the emission standards in Section III.M.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]

#### 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]

### N. EMISSIONS UNIT 549 (EU-549)

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

#### Classification:

- Subject to 40 CFR Part 63 Subpart JJJJJJ – 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 JJJJJJ, Option 12)
- Oil fired boiler with heat input capacity of equal to or less than 5MMBtu/hr
- *Not subject to RCSA §§22a-174-3a or 22a-174-22(b)*

#### 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. [40 CFR §63.11223, Table 2 - Option 12]

##### b. Monitoring and Testing Requirements

Record keeping specified in Section III.N.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*

- i. The Permittee must maintain the following records:
  - A. Copy of each notification and report submitted to comply with 40 CFR Part 63 Subpart JJJJJ and all documentation in 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 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 month 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)]

#### *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, an annual compliance certification report for the previous calendar year in accordance with 40 CFR §63.11225(b). [40 CFR §63.11225(b)]

#### **O. EMISSIONS UNIT 558 (EU-558)**

**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

## Section III: Applicable Requirements and Compliance Demonstration

### 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. When burning No. 2 fuel oil the fuel sulfur content shall not exceed 0.2% by weight, dry basis. [CP/OP 098-0026]
- 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 use a fuel metering device to continuously monitor fuel feed to this source. [CP/OP 098-0026]

#### c. Record Keeping Requirements

- i. The Permittee shall keep records of 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 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 retain all required records and reports for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. [CP/OP 098-0026, RCSA §22a-174-22(1)(5)]

#### 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

- i. Opacity: Averaging time: six minute block  
Emission Limit: 20% opacity  
[CP/OP 098-0026, 40 CFR Part 60 Subpart Db]

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

- ii. NO<sub>x</sub>: Averaging time: 24 hour rolling  
Emission Limit: Natural gas: 0.04 lb/MMBtu and 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*

- i. The Permittee shall calibrate, maintain, operate, and certify a continuous emissions monitor (CEM) for NO<sub>x</sub> and opacity. The CEM shall be calibrated, operated and tested in accordance with DEEP Continuous Emission Monitoring Guideline and with the requirements specified in 40 CFR Part 60 Subpart A, Appendix B and Appendix F, as may be amended from time to time. [CP/OP 098-0026]
- ii. The performance or quality assurance testing of the CEM shall be conducted in accordance with a testing protocol approved by the commissioner. [RCSA §22a-174-22(k)(3)]

#### *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)]
- iii. The Permittee shall retain all required records and reports for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. [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>x</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>x</sub>:
  - A. Natural gas: emissions shall not exceed 0.12 lb/hr, 0.001 lb/MMBtu and 0.40 TPY. [CP/OP 098-0026]

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- 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>x</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]
- vi. 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.O.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 demonstrate compliance with Section III.O.3.a of this Title V Permit by calculating the emission rates using emission factors from the following sources:
  - 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.

### Section III: Applicable Requirements and Compliance Demonstration

- 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). [CP/OP 098-0026]
- ii. The Permittee shall retain all required records and reports for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. [CP/OP 098-0026]

#### 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. NOx/Control Equipment

#### a. Limitation or Restriction

- i. NOx:
  - 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 NOx emissions shall not exceed 19.48 TPY for natural gas and No. 2 fuel oil, combined. [CP/OP 098-0026]
  - D. Low NOx burner and flue gas recirculation: Guaranteed NOx emission rate:  
[CP/OP 098-0026]  
Natural gas: 0.04 lb/MMBtu  
No. 2 fuel oil: 0.10 lb/MMBtu

#### b. Monitoring and Testing Requirements

If required by the commissioner, the Permittee shall measure NOx emissions using EPA Method 7 stack test. [RCSA §§22a-174-5(e)(2) and 22a-174-33(j)(1)(K)(ii)]

#### c. Record Keeping Requirements

- i. The averaging times for the applicable NOx emission limitations of RCSA §22a-174- 22 with the use of the CEM shall be 24 hours, measured from midnight at the beginning of any day to midnight of the end of that day and shall include all periods of operation, including startup, shutdown, and malfunction. [RCSA §22a-174-22(k)(4)]
- ii. The Permittee shall make and keep the following records for a minimum of five years; commencing on the date such records were created. [RCSA §22a-174-33(o)(2)]:
  - A. Records of all tune-ups, repairs, replacement of parts and other maintenance. [RCSA §22a-174- 22(1)(1)(D)]

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

- B. Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22. [RCSA §22a-174-22(1)(1)(E)]
- C. The Permittee shall keep records of the dates, times, and places of all emissions testing required by O.4.b above, the persons performing the measurements, the testing method used, the operating conditions at the time of testing, and the results of such testing. [RCSA §22a-174-22(1)(1)(H)]
- D. Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22. [RCSA §22a-174-22(1)(1)(J)]

#### *d. Reporting Requirements*

Within 30 days of completion of NO<sub>x</sub> emission tests, the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22(1)(2)]

### **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 boiler at an area source of HAPs

#### *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 fuels 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.O.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.

### Section III: Applicable Requirements and Compliance Demonstration

[40 CFR §63.11225(c)(1)]

- ii. The Permittee shall keep records that identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned. [40 CFR §63.11225(c)(2)(i)]
- iii. The Permittee shall keep a copy of the energy assessment report. [40 CFR §63.11225(c)(2)(iii)]
- iv. The Permittee shall keep records of the occurrence and duration of each malfunction of the boiler. [40 CFR §63.11225(c)(4)]
- v. The Permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR §63.11205(a), including corrective actions to restore the malfunctioning boiler to its normal or usual manner of operation. [40 CFR §63.11225(c)(5)]

#### d. Reporting Requirements

- i. The Permittee shall prepare a biennial compliance certification report containing the information in 40 CFR §§63.11225(b)(1) and (2). This report shall be prepared by March 1 of each year and submitted to the delegated authority upon request. The report must be submitted by March 15 if there were any instances described in paragraph 40 CFR §63.11225(b)(3). [40 CFR §63.11225(b)]
- ii. The Permittee shall submit 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)]

#### P. EMISSIONS UNIT 569 (EU-569)

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

##### Classification:

- Subject to RCSA §22a-174-22(l)
- *Not subject to RCSA §22a-174-3a*

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

##### a. Limitation or Restriction

Emissions of NO<sub>x</sub> shall not exceed 2.5 gm/bk hp-hr. [RCSA §22a-174-22(e)(1)]

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

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

- i. The Permittee shall conduct NO<sub>x</sub> emission tests at least once every five years. Compliance with the NO<sub>x</sub> emission limitations shall be determined in accordance with RCSA §22a-174-5. [RCSA §22a-174-22(k)(1)]
- ii. The Permittee shall demonstrate compliance with NO<sub>x</sub> emission limitations using sampling and analytical procedures approved under 40 CFR Part 60, Appendix A or under procedures in RCSA §22a-174-5(d). [RCSA §22a-174-22(k)(2)]

#### *c. Record Keeping Requirements*

The Permittee shall make and keep the following records for a minimum of five years; commencing on the date such records were created. [RCSA §22a-174-33(o)(2)]:

- i. Records of all tune-ups, repairs, replacement of parts and other maintenance. [RCSA §22a-174-22(l)(1)(D)]
- ii. Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22. [RCSA §22a-174-22(l)(1)(E)]
- iii. Records of the dates, times, and places of all emission testing required by RCSA §22a-174-22, the person performing the measurements, the testing methods used, the operating conditions at the time of the testing, and the results of such testing. [RCSA §22a-174-22(l)(1)(H)]

#### *d. Reporting Requirements*

- i. Within 30 days of the completion of emission tests conducted under the requirements of Section III.O.1.b of this Title V permit, the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22(l)(2)]
- ii. On or before April 15 of each year, the Permittee shall submit a report on NO<sub>x</sub> emissions on a form provided by the commissioner. [RCSA §22a-174-22(l)(6)]

## **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
- Constructed before June 12, 2006

#### *a. Limitation or Restriction*

- i. The Permittee shall change oil and filter every 1,440 hrs 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 replaced if necessary. [40 CFR §63.6603(a), Table 2d, Option 7]
- iii. The Permittee shall inspect all hoses and belts every 1,440 hours of operation or annually whichever comes first, and replaced if necessary. [40 CFR §63.6603(a), Table 2d, Option 7]

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

- 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)]

#### *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 five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR §63.6660]

#### *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)]

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

#### **Classification:**

- Stationary storage tank for gasoline at a dispensing facility with capacity of more than 250 gallons and throughput of 10,000 gallons or more per 30 day period

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

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

- i. The Permittee shall not place, store, or hold gasoline in the storage tank unless the tank is equipped with a permanent submerged fill pipe with a discharge point 18 inches or less from the bottom of the tank. [§22a-174-20(a)(3)]
- ii. The Permittee shall install an approved vapor control system. [§22a-174-20(b)(7)]
- iii. The Permittee shall not allow the transfer of gasoline from a delivery vehicle to the gasoline storage tank unless: [§22a-174-20(b)(8)]
  - A. The transfer is made through a properly maintained and operated approved vapor control system which is in good working order, connected and operating; and

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

- B. There are no leaks in pressure/vacuum relief valves and hatch covers of the delivery vehicle, nor in the truck tanks, storage tank or associated vapor and liquid lines during loading or unloading.
- iv. The Permittee shall not dispense gasoline to the storage tank having an approved vapor control system in such a manner as to impair the collection efficiency of the control system. [RCSA §22a-174-20(b)(9)]

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

Record keeping specified in Section III.Q.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: [RCSA §22a-174-20(b)(16)]

- i. Make and keep monthly records demonstrating implementation of the written Operating and Maintenance Plan for any equipment used to load or unload gasoline; and
- ii. Maintain such records at the subject facility for a period of five years and provide such records to the commissioner upon request.

#### *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. Dispensing of Gasoline/ Stage I and Stage II Vapor Recovery**

### **Note:**

In accordance with Public Act No. 13-120, the Permittee shall decommission all Stage II vapor recovery equipment used at the dispensing facility or before July 1, 2015 in accordance with Section 22a-174e(c) of the Connecticut General Statutes. Upon completion of the decommissioning, the Permittee will be exempt from the requirements for Stage II vapor recovery noted in this Title V permit.

#### *a. Limitation or restrictions*

- i. The Permittee shall not transfer or allow the transfer of gasoline into a motor vehicle fuel tank unless a properly operating Stage II vapor recovery system is used for such transfer. [RCSA §22a-174-30(b)(1)]
- ii. The Permittee shall comply with all applicable Stage I and Stage II vapor recovery system equipment specification set forth in RCSA §22a-174-30(c).
- iii. The Permittee shall require that at least one representative of the dispensing facility attend and successfully complete a training session provided by a Stage II equipment manufacturer, supplier, distributor or installer in the operation and maintenance of the Stage II vapor recovery system. If the representative who received the training is no longer employed at that facility, another representative of such dispensing facility shall attend and successfully complete the training within three months of the departure of such representative who had previously received the training. Training shall include

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

all areas listed in RCSA §§22a-174-30(d)(1). [RCSA §22a-174-30(d)]

- iv. The Permittee shall maintain the Stage II vapor recovery system in accordance with specifications that are or have ever been approved by CARB. [RCSA §22a-174-30(d)(2)]
- v. The Permittee shall post, conspicuously on the upper two-third of each gasoline dispenser, operating instructions for dispensing gasoline using the Stage II vapor recovery system. Instructions shall include information listed in RCSA §22a-174-30(d)(3). [RCSA §22a-174-30(d)]
- vi. The Permittee shall immediately tag “out of order” any Stage II vapor recovery system having a defect, as defined in RCSA §22a-174-30(g)(3). [RCSA §22a-174-30(g)]
- vii. The Permittee shall not allow the use of a Stage II vapor recovery system which has been tagged “out of order” until such system has been repaired or replaced. [RCSA §22a-174-30(g)(2)]
- viii. Decommissioning of Stage II vapor recovery equipment shall be performed in accordance with Section 14 of the 2009 “Recommended Practices for Installation and Testing of vapor Recovery System at Vehicle Refueling Sites” of the Petroleum Equipment Institute. The decommissioning shall be completed within 100 days from initiation, unless the commissioner grants an extension of time for good cause after a request for such extension by the Permittee. [CGS §22a-174-e(c)]

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

- i. The Permittee shall conduct testing to verify that the Stage II vapor recovery system is operating properly at least every three years upon major system modification, whichever occurs first. Such testing shall include a leak check test and any and all other functional tests defined in RCSA §22a-174-30(e)(1). Before conducting the testing, the Permittee shall notify the commissioner at least seven days in advance of such testing. If any Stage II vapor recovery system does not pass any test, the Stage II vapor recovery system shall be considered to not be operating properly. [RCSA §22a-174-30(e)(2), (3) and (4)]
- ii. Once all Stage II vapor recovery equipment has been decommissioned in accordance with Public Act 13-120, the Permittee annually shall perform a pressure decay test on each Stage I vapor recovery system operated at the dispensing facility. The Permittee shall notify the Commissioner at least seven business days prior to a scheduled test on a form prescribed by the commissioner. [CGS §22a-174e(d)]

#### *c. Record Keeping Requirements*

- i. The Permittee shall maintain the following records: [RCSA §22a-174-30(f)(1)]
  - A. All licenses, as that term is defined in CGS §4-166, to construct or operate the dispensing facility or to construct or operate a specific system at the dispensing facility.
  - B. All records and results of tests performed pursuant to RCSA §22a-174-30(e) 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 II vapor recovery system, including a description of the maintenance problem, identification of any part or parts repaired or replaced on such Stage II vapor recovery system, the date such part or parts in the system including the number of the gasoline dispenser.

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

- D. Proof that a current representative of the dispensing facility received training pursuant to RCSA §22a-174-30(d).
  - E. A chronological file of all inspection reports of the dispensing facility issued by a representative of the Department, the Department of Consumer Protection or EPA.
  - F. A chronological file of all compliance records, including orders, warnings and notices of violations, issued by a representative of the Department, the Department of Consumer protection or EPA.
- ii. The Permittee shall make the records available for inspection and copying by a representative of the Department, EPA or the Department of Consumer Protection. [RCSA §22a-174-30(f)(2)]
  - iii. The Permittee shall maintain the records for five years from the date of creation. [RCSA §22a-174-30(f)(3)]
  - iv. The Permittee shall display in a conspicuous location at the dispensing facility the address at which the records are maintained. [RCSA §22a-174-30(f)(4)]

#### *d. Reporting Requirements*

The Permittee shall notify the commissioner of the intent to decommission a Stage II vapor recovery system at least thirty days prior to decommissioning. This notification shall be made on a form provided by the commissioner. [CGS §22a-174e(c)]

### **3. 40 CFR Part 63 Subpart CCCCC - 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 system that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

### Section III: Applicable Requirements and Compliance Demonstration

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.Q.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)]

## R. PREMISES-WIDE GENERAL REQUIREMENTS

### Premises-Wide General Requirements

- 1. Annual Emission Statements:** The Permittee shall submit annual emission statements requested by the commissioner as set forth in RCSA §22a-174-4(d)(1).
- 2. Emergency Episode Procedures:** The Permittee shall comply with the procedures for emergency episodes as set forth in RCSA §22a-174-6.
- 3. Reporting of Malfunctioning Control Equipment:** The Permittee shall comply with the reporting requirements of malfunctioning control equipment as set forth in RCSA §22a-174-7.
- 4. Prohibition of Air Pollution:** The Permittee shall comply with the requirement to prevent air pollution as set forth in RCSA §22a-174-9.
- 5. Public Availability of Information:** The public availability of information shall apply, as set forth in RCSA §22a-174-10.
- 6. Prohibition Against Concealment/Circumvention:** The Permittee shall comply with the prohibition against concealment or circumvention as set forth in RCSA §22a-174-11.
- 7. Violations and Enforcement:** The Permittee shall not violate or cause the violation of any applicable regulation as set forth in RCSA §22a-174-12.
- 8. Variances:** The Permittee may apply to the commissioner for a variance from one or more of the provisions of these regulations as set forth in RCSA §22a-174-13.

### Section III: Applicable Requirements and Compliance Demonstration

#### Premises-Wide General Requirements

9. **No Defense to Nuisance Claim:** The Permittee shall comply with the regulations as set forth in RCSA §22a-174-14.
10. **Severability:** The Permittee shall comply with the severability requirements as set forth in RCSA §22a-174-15.
11. **Responsibility to Comply:** The Permittee shall be responsible to comply with the applicable regulations as set forth in RCSA §22a-174-16.
12. **Particulate Emissions:** The Permittee shall comply with the standards for control of particulate matter and visible emissions as set forth in RCSA §22a-174-18. (Section 18 approved by EPA on 9-23-1982, current Regulation submitted to EPA on 12-1-2004)
13. **Sulfur Compound Emissions:** The Permittee shall comply with the requirements for control of sulfur compound emissions as set forth in RCSA §22a-174-19.
14. **Organic Compound Emissions:** The Permittee shall comply with the requirements for control of organic compound emissions as set forth in RCSA §22a-174-20.
15. **Nitrogen Oxide Emissions:** The Permittee shall comply with the requirements for control of nitrogen oxide emissions as set forth in RCSA §22a-174-22.
16. **Ambient Air Quality:** The Permittee shall not cause or contribute to a violation of an ambient air quality standard as set forth in RCSA §22a-174-24(b).
17. **Emission Fees:** The Permittee shall pay an emission fee as set forth in RCSA §22a-174-26(d).
18. **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. [P098-0056, 098-0061 and 098-0062]
19. **Protection of Stratospheric Ozone (40 CFR Part 82):** The Permittee shall comply with applicable standards and procedures regarding the servicing, maintenance, repair and disposal of motor vehicle air conditioners (MVACs), MVAC-like appliances, and other devices that contain and use refrigerant.

### 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>
		<b>No steps are required for achieving compliance at this time.</b>		

## Section V: State Enforceable Terms and Conditions

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

### State Enforceable Terms and Conditions

- A.** This Title V permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the emissions units in compliance with all applicable requirements of any other Bureau of the Department of Energy and Environmental Protection or any federal, local or other state agency. Nothing in this Title V permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- B.** Nothing in this Title V permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, investigate air pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.
- C.** Additional Emissions Units
- 1.** The Permittee shall make and submit a written record, at the commissioner's request, within 30 days of receipt of notice from the commissioner, or by such other date specified by the commissioner, of each additional emissions unit or group of similar or identical emissions units at the premises.
- 2.** Such record of additional emissions units shall include each emissions unit, or group of emissions units, at the premises which is not listed in Section II.A of this Title V permit, unless the emissions unit, or group of emissions units, is:
- a. an insignificant emissions unit as defined in RCSA §22a-174-33; or
  - b. an emissions unit or activity listed in *White Paper for Streamlined Development of Part 70 Permit Applications, Attachment A* (EPA guidance memorandum dated July 10, 1995).
- 3.** For each emissions unit, or group of emissions units, on such record, the record shall include, as available:
- a. Description, including make and model;
  - b. Year of construction/installation or if a group, range of years of construction/installation;
  - c. Maximum throughput or capacity; and
  - d. Fuel type, if applicable.
- D.** Odors: The Permittee shall not cause or permit the emission of any substance or combination of substances which creates or contributes to an odor that constitutes a nuisance beyond the property boundary of the premises as set forth in RCSA §22a-174-23
- E.** Noise: The Permittee shall operate in compliance with the regulations for the control of noise as set forth in RCSA §§22a-69-1 through 22a-69-7.4, inclusive.
- F.** Hazardous Air Pollutants (HAPs): The Permittee shall operate in compliance with the regulations for the control of HAPs as set forth in RCSA §22a-174-29.

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

### **State Enforceable Terms and Conditions**

- G.** Open Burning: The Permittee is prohibited from conducting open burning, except as may be allowed by CGS §22a-174(f).
- H.** Fuel Sulfur Content: The Permittee shall not use No. 2 heating oil that exceeds the sulfur content percentages by weight as set forth in CGS §16a-21a.
- I.** The Permittee shall comply with the fuel sulfur content limitations for stationary sources as set forth in RCSA §22a-174-19b.

## 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.

### 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: Director, Air Compliance Program; Attn: Air Compliance Clerk; Office of Environmental Stewardship; EPA Region 1; 5 Post Office Square, Suite 100; Mail Code OEP05-02; Boston, Massachusetts 02109-3912.

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

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

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

#### C. SIGNATORY RESPONSIBILITY [RCSA §22a-174-2a(a)(1)(F)]

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

1. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding 25 million dollars in second quarter 1980 dollars; or

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

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

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

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

1. The type of monitoring or records used to obtain such data, including record keeping;
2. The date, place, and time of sampling or measurement;

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3. The name of the individual who performed the sampling or the measurement and the name of such individual's employer;
4. The date(s) on which analyses of such samples or measurements were performed;
5. The name and address of the entity that performed the analyses;
6. The analytical techniques or methods used for such analyses;
7. The results of such analyses;
8. The operating conditions at the subject source at the time of such sampling or measurement; and
9. All calibration and maintenance records relating to the instrumentation used in such sampling or measurements, all original strip-chart recordings or computer printouts generated by continuous monitoring instrumentation, and copies of all reports required by the subject permit.

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

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

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

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

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

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

Any compliance certification prepared and submitted pursuant to RCSA §22a-174-33(q)(2) shall be simultaneously submitted by the Permittee to the Administrator.

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

Notwithstanding Section VI.D 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).

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

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

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

This Title V permit shall not be deemed to:

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

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

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

### **N. PERMIT AVAILABILITY**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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### **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.