



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.

Title V Permit Number	137-0094-TV
Client/Sequence/Town/Premises Numbers	1727/1/137/3
Date Issued	October 29, 2015
Expiration Date	October 29, 2020

Corporation:

Norwalk Hospital Association

Premises Location:

24 Stevens Street, Norwalk, Connecticut 06856

Name of Responsible Official and Title:

Anthony Caputo, Director of Facilities Management

All the following attached pages, 2 through 45, are hereby incorporated by reference into this Title V permit.

/s/ Anne Gobin for
Robert J. Klee
Commissioner

October 29, 2015
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>
%	Percent
°F	Degree Fahrenheit
AP-42	AP-42, Compilation of Air Pollutant Emission Factors
AOS	Alternative Operating Scenario
BHP	Brake horsepower
BTU	British Thermal Units
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CGS	Connecticut General Statutes
CO	Carbon Monoxide
EU	Emissions Unit
EPA	Environmental Protection Agency
Ft ³	Cubic Feet
Gal	Gallons
GEU	Grouped Emissions Unit
Gph	Gallons per hour
Gm	Gram
H ₂ O	Water
HAP	Hazardous Air Pollutant
HCHO	Formaldehyde
Hp	Horsepower
Hr	Hour
ISO	International Organization for Standardization
Kw	Kilowatt
Lb	Pound
M ³	Cubic Meters
Mft ³	Thousand Cubic Feet
Mgal	Thousand Gallons
MMBtu	Million British Thermal Units
MMft ³ /MMcf	Million Cubic Feet
MRC	Maximum Rated Capacity
Mw	Megawatt
No.	Number
NO _x	Nitrogen Oxides
NSR	New Source Review
O ₂	Oxygen
PM	Particulate Matter
PM ₁₀	Particulate Matter less than 10 microns
PM _{2.5}	Particulate Matter less than 2.5 microns
PPM	Parts per million
Ppmvd	Parts per million, volumetric basis dry
RCSA	Regulations of Connecticut State Agencies
SCR	Selective Catalytic Reduction
SIC	Standard Industrial Classification Code
SO ₂	Sulfur Dioxide

LIST OF ABBREVIATIONS/ACRONYMS, continued

<i>Abbreviation/Acronym</i>	<i>Description</i>
SOS	Standard Operating Scenario
Tpy	Tons per year
µg	Micrograms
VOC	Volatile Organic Compound
Yr	Year

Section I: Premises Information/Description

A. PREMISES INFORMATION

Nature of Business: General Medical & Surgical Hospitals
Primary SIC: 8062

Facility Mailing Address: Norwalk Hospital Association
34 Maple Street
Norwalk, Connecticut 06856

Telephone Number: (203)-852-3284

B. PREMISES DESCRIPTION

Norwalk Hospital Association owns and operates Norwalk Hospital, a general medical and surgical hospital. The hospital premises includes an energy generation and distribution center (“The Center”) to supplement its power requirements. All power and steam generated by the Center is supplied to the hospital.

The Center consists of generators driven by a gas turbine (NSR Permit No. 137-0052), a cogeneration engine (NSR Permit No. 137-0164), and two boilers (NSR Permit Nos. 137-0053 and 137-0054). The cogeneration engine (NSR Permit No. 137-0164) replaced Gas Turbine No. 1 (EU-001), which was removed from the premises in 2014 and its corresponding operating permit, NSR Permit No. 137-0051, revoked in the same year. The gas turbine, cogeneration engine and two boilers share a common stack. The hospital premises also includes four emergency generators, three of which operate under the permit-by-rule regulations, RCSA Section 22a-174-3b, and an ethylene oxide sterilization system consisting of three sterilizers. The insignificant emission units located at the premises include a cooling tower, and food preparation and storage systems, among others.

Gas Turbine

Combustion Turbine No. 2 (A 1.25 MW Kawasaki MIA-13 Combustion Turbine) operates under NSR Permit No. 137-0052, originally issued on December 16, 1991, and last modified on June 5, 2015. The unit (EU-002) is subject to the Standards of Performance for Stationary Gas Turbines (40 CFR Part 60 Subpart GG). Water injection is used to control NO_x emissions and at this time, a continuous monitoring system is used to monitor fuel consumption and the ratio of water to fuel being fired in the turbine.

Boilers

Cleaver Brooks Boiler Nos. 1 and 2 operate under NSR Permit Nos. 137-0053 and 137-0054, respectively. The aforementioned permits were originally issued on December 16, 1991, and last modified on June 5, 2015. The units (EU-003 and EU-004 or GEU-001) are subject to the Standards of Performance for Small-Industrial-Commercial Institutional Steam Generating Units (40 CFR Part 60 Subpart Dc) and the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR Part 63 Subpart JJJJJ).

Emergency Engines

Three Caterpillar Emergency Generators (EU-005, EU-010 and EU-013) operate under the permit-by-rule regulations, RCSA Section 22a-174-3b. At this time, the 300 kW Emergency Generator (EU-008) does not require of a permit to operate because the unit was installed on January 1, 1973 and has a maximum heat input less than 5 MMBtu/hr, the permitting threshold at the time. All four emergency generators

Section I: Premises Information/Description

(GEU-002) are subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63 Subpart ZZZZ) and pursuant to 40 CFR Part 63.6590(c), EU-013 will meet the requirements of 40 CFR Part 63 Subpart ZZZZ by complying with the applicable requirements of 40 CFR Part 60 Subpart III.

Ethylene Oxide Sterilization System

The Ethylene Oxide Sterilization System (EU-011) is comprised of three ethylene sterilizers. The system has combined total potential emissions less than 15 tons per year and is subject to the National Emission Standards for Hospital Ethylene Oxide Sterilizers (40 CFR Part 63 Subpart WWWW).

Cogeneration Engine

The 3 MW Caterpillar Natural Gas-Fired Cogeneration Engine (EU-012) operates under NSR Permit No. 137-0164 issued on August 6, 2014. The unit is equipped with a Selective Catalytic Reduction (SCR) system to control Nitrogen Oxides (NO_x) emissions and an oxidation catalyst to control Carbon Monoxide (CO) and Volatile Organic Compounds (VOC) emissions. As a stationary reciprocating internal combustion engine located at an area source of HAPs, the unit is subject to 40 CFR Part 63 Subpart ZZZZ. The Cogeneration Engine is also subject to the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40 CFR Part 60 Subpart JJJJ). Norwalk Hospital will meet the requirements of 40 CFR Part 63 Subpart ZZZZ by complying with the applicable requirements of 40 CFR Part 60 Subpart JJJJ, pursuant to 40 CFR Part 63.6590(c).

Norwalk Hospital exceeds the major source threshold for the following pollutants: NO_x

Norwalk Hospital is a Title V source located in a severe ozone non-attainment area defined in RCMA Section 22a-174-1(104).

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.

TABLE II.A: EMISSIONS UNITS DESCRIPTION			
Emissions Unit	Emissions Unit Description	Control Unit Description	Permit, Order, Registration, or Regulation Number
EU-002	Kawasaki 1.25 MW MIA-13 Combustion Turbine No. 2 Installation Date: 05/15/92 MRC: 21.61 MMBtu/hr (Natural Gas); 20.81 MMBtu/hr (Fuel Oil No. 2)	Water Injection Water Injection at a rate of 0.8 lbs/lb fuel or such other amount sufficient to maintain compliance with NO _x .	NSR Permit No. 137-0052 40 CFR Part 60 Subpart GG
GEU-001 Boilers	EU-003	Cleaver Brooks (CB) 200-500 HP-150 Boiler No. 1 Installation Date: 05/15/92 MRC: 20.93 MMBtu/hr	None NSR Permit No. 137-0053 40 CFR Part 60 Subpart Dc 40 CFR Part 63 Subpart JJJJJ
	EU-004	Cleaver Brooks (CB) 200-500 HP-150 Boiler No. 2 Installation Date: 05/15/92 MRC: 20.93 MMBtu/hr	None NSR Permit No. 137-0054 40 CFR Part 60 Subpart Dc 40 CFR Part 63 Subpart JJJJJ
GEU-002 Emergency Engines	EU-005	Caterpillar 3508 Emergency Generator Installation Date: 10/21/93 MRC: 7.7 MMBtu/hr	None RCSA Section 22a-174-3b(e) 40 CFR Part 63 Subpart ZZZZ
	EU-008	300 kW Emergency Generator Installation Date: 01/01/73 MRC: 2.8 MMBtu/hr	None 40 CFR Part 63 Subpart ZZZZ

Section II: Emissions Units Information

TABLE II.A: EMISSIONS UNITS DESCRIPTION

Emissions Unit		Emissions Unit Description	Control Unit Description	Permit, Order, Registration, or Regulation Number	
	EU-010	Caterpillar 3516B Emergency Generator Installation Date: 04/01/02 MRC: 20.2 MMBtu/hr	None	RCSA Section 22a-174-3b(e) 40 CFR Part 63 Subpart ZZZZ	
	EU-013	Caterpillar 3516C Emergency Generator Installation Date: 09/01/14 MRC: 18.9 MMBtu/hr	None	RCSA Section 22a-174-3b(e) 40 CFR Part 60 Subpart IIII 40 CFR Part 63 Subpart ZZZZ	
	EU-011	Ethylene Oxide Sterilization System Installation Date: 01/01/93 Maximum Throughput: 490 lb/yr	None	40 CFR Part 63 Subpart WWWWW	
	EU-012	3MW Caterpillar CG260-12 Natural Gas-Fired Cogeneration Engine Installation Date: 10/09/14 MRC: 25.84 MMBtu/hr	<p align="center">Selective Catalytic Reduction</p> Make and Model: Steuler DeNO _x -2032V12/3000 or Equivalent Catalyst Type: BASF Catalyst 04-85 or Equivalent Minimum Design NO _x Removal Efficiency (%): 88.3 Catalyst Bed Temperature Range (°F): 570 - 932 Maximum Pressure Drop across Catalyst/Mixer (inches of H ₂ O): 6.0 Maximum Urea Consumption Rate (gal/hr): 2.5 Urea Solution Concentration (% by weight): 40	<p align="center">Oxidation Catalyst</p> Make and Model: Steuler or Equivalent Catalyst Type: Sud-Chemie EnviCat DOC-2500 CH or Equivalent Minimum Design CO Removal Efficiency (%): 99.2 Minimum Design VOC Removal Efficiency (%): 86.8 Minimum Design HCHO Removal Efficiency (%): 84.9	NSR Permit No. 137-0164 40 CFR Part 60 Subpart JJJJ 40 CFR Part 63 Subpart ZZZZ

Section II: Emissions Units Information

B. OPERATING SCENARIO IDENTIFICATION

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

TABLE II.B: OPERATING SCENARIO IDENTIFICATION		
Identification of Operating Scenario	Emissions Units Associated with the Scenario	Description of Scenario
SOS	EU-002 and GEU-001	One gas turbine (EU-002) and two boilers (GEU-001) burning natural gas and fuel oil No. 2 and operating in accordance with their respective NSR permits and corresponding Federal Standards.
	GEU-002	Three diesel-fired emergency generators (EU-005, EU-010 and EU-013) operating under RCSA Section 22a-174-3b(e) and all four diesel-fired emergency generators (EU-005, EU-008, EU-010 and EU-013) operating in accordance with 40 CFR Part 63 Subpart ZZZZ. Lastly, EU-013 will also operate in accordance with 40 CFR Part 60 Subpart IIII.
	EU-011	One sterilization system using ethylene oxide and operating in accordance with 40 CFR Part 63 Subpart WWWW.
	EU-012	One natural gas-fired cogeneration engine operating in accordance with its NSR permit and corresponding Federal Standards.

Section III: Applicable Requirements and Compliance Demonstration

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

A. EU-002 COMBUSTION TURBINE NO. 2

1. Fuel Consumption and Sulfur Content

a. Limitation or Restriction

- i. Combustion Turbine No. 2 (EU-002) shall only burn Natural Gas, as defined in 40 CFR Part 60.331(u), and Distillate Fuel Oil No. 2. [NSR Permit No. 137-0052 and 40 CFR Part 60.334(h)(3)]
- ii. The Permittee shall only burn fuel with a sulfur content no greater than the applicable limits set forth in RCSA Section 22a-174-19b and 40 CFR Part 60.333(b). [NSR Permit No. 137-0052]
- iii. The maximum fuel firing rates for the gas turbine shall not exceed the following limits: [NSR Permit No. 137-0052]
 - (A) 21.61 Mft³/hr for Natural Gas.
 - (B) 148.64 gph of Distillate Fuel Oil No. 2.
- iv. The maximum fuel consumption over any consecutive 12 month period for the gas turbine shall not exceed the following limits: [NSR Permit No. 137-0052]
 - (A) 189.3 MMft³ for Natural Gas.
 - (B) 433.5 Mgal of Distillate Fuel Oil No. 2.
- v. Notwithstanding the fuel consumption limitations listed in condition A.1.a.iv. (of Section III) of this Title V permit, the Maximum Heat Input over any consecutive 12 month period for Combustion Turbine No. 2 shall not exceed 189,303.6 MMBtu. [NSR Permit No. 137-0052]

b. Monitoring Requirements

- i. The Permittee shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the hourly fuel consumption for Combustion Turbine No. 2. [NSR Permit No. 137-0052]

c. Record Keeping Requirements

- i. The Permittee shall keep records of monthly and consecutive 12 month fuel consumption for each fuel. The consecutive 12 month fuel consumption shall be determined by adding (for each fuel) the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [NSR Permit No. 137-0052]
- ii. The Permittee shall calculate and record the monthly and consecutive 12 month heat input for Combustion Turbine No. 2. The monthly heat input shall be calculated using a Natural Gas heating value of 1000 Btu/ft³ and a Distillate Fuel Oil No. 2 heating value of 140,000 Btu/gal. The consecutive 12 month heat input shall be determined by adding the current month's heat input to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [NSR Permit No. 137-0052]

Section III: Applicable Requirements and Compliance Demonstration

- iii. The Permittee shall keep records of fuel supplier certification for each delivery of fuel or a copy of the current contract with the fuel supplier supplying the fuel used by Combustion Turbine No. 2 that includes the applicable sulfur content of the fuel as a condition of each shipment. These records 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), the method used to determine such sulfur content, and the quantity purchased for combustion. [NSR Permit No. 137-0052 and 40 CFR Part 60.334(h)(3) and (i)(1)]
- iv. The Permittee shall keep all required records for a period of no less than five years and shall submit such records to the commissioner upon request. [NSR Permit No. 137-0052]

d. Reporting Requirements

- i. The Permittee shall provide written monitoring reports to the commissioner by the 30th day following the end of each semi-annual period in accordance with Section VI.E. of this Title V permit. [Section VI.E. of this Title V permit]
- ii. The Permittee shall provide the records specified in Section III.A.1.c. of this Title V permit to the commissioner within thirty days of receipt of a written request from the commissioner or such sooner time as the commissioner may require. [RCSA §22a-174-4(d)(1)]

2. NO_x

a. Limitation or Restriction

- i. The Permittee shall not exceed the emission limits stated herein at any time for the gas turbine: [NSR Permit No. 137-0052]
 - (A) 3.46 lb/hr (Natural Gas); 5.20 lb/hr (Distillate Fuel Oil No. 2)
 - (B) 0.16 lb/MMBtu (Natural Gas); 0.25 lb/MMBtu (Distillate Fuel Oil No. 2)
 - (C) 42 ppmvd @ 15% O₂ (Natural Gas); 65 ppmvd @ 15% O₂ (Distillate Fuel Oil No. 2)
 - (D) 17.69 tpy
- ii. The Permittee shall use Water Injection at a rate of 0.8 pounds per pound of fuel or such other amount demonstrated to be sufficient to maintain compliance with the applicable NO_x emission limits. [NSR Permit No. 137-0052]

b. Monitoring Requirements

- i. The Permittee shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the hourly rate of water injection to Combustion Turbine No. 2. [NSR Permit No. 137-0052]
- ii. The Permittee shall demonstrate compliance with the NO_x emissions limits listed in Section III.A.2.a.i. of this Title V permit by calculating emissions rates using the most recent stack test results. However, this shall not preclude the commissioner from requiring other means to demonstrate compliance with the aforementioned emissions limits, as allowed by state or federal statute, law or regulation. [NSR Permit No. 137-0052]

Section III: Applicable Requirements and Compliance Demonstration

- iii. The Permittee shall conduct stack testing for NO_x within 180 days from the modification issue date of NSR Permit No. 137-0052 (June 5, 2015) and it shall be conducted for the following operating modes: turbine only on Distillate Fuel Oil No. 2 and turbine only on Natural Gas. [NSR Permit No. 137-0052]
- iv. The Permittee shall conduct recurrent emission testing for NO_x within five years from the date of the last performance test. [NSR Permit No. 137-0052]
- v. The Permittee shall conduct the performance tests required in 40 CFR Part 60.8, using the methods and procedures specified in 40 CFR Part 60.335, as applicable. [40 CFR Part 60.335]

c. Record Keeping Requirements

- i. The Permittee shall calculate and record the hourly ratio of water injection to fuel use on a pound per pound basis. [NSR Permit No. 137-0052]
- ii. The Permittee shall maintain records sufficient to determine compliance with the short-term emission limits listed in Section III.A.2.a.i. of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]
- iii. The Permittee shall calculate and record the monthly and consecutive 12 month NO_x emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [NSR Permit No. 137-0052]
- iv. The Permittee shall comply with all applicable record keeping requirements set forth in RCSA Section 22a-174-22(l) and 40 CFR Part 60 Subpart GG. [NSR Permit No. 137-0052]
- v. The Permittee shall keep all required records for a period of no less than five years and shall submit such records to the commissioner upon request. [NSR Permit No. 137-0052]

d. Reporting Requirements

- i. The Permittee shall submit to the commissioner all applicable notifications and reports as required by RCSA Section 22a-174-22. [NSR Permit No. 137-0052]
- ii. NO_x emission test results shall be reported in units of lb/hr, lb/MMBtu and ppmvd at 15% O₂, and these results shall be submitted within 30 days after completion of testing. [NSR Permit No. 137-0052]
- iii. The Permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR Part 60.7(c) and 40 CFR Part 60.334(j). Excess emissions and monitor downtime, as defined in 40 CFR Part 60.334(j)(1)(i), shall be reported for all periods of unit operation, including startup, shutdown and malfunction. All reports required under 40 CFR Part 60.7(c) shall be postmarked by the 30th day following the end of each 6-month period.[40 CFR Part 60.334(j)]
- iv. On a daily basis, the Permittee shall review all recorded NO_x emissions data and report to the commissioner, in accordance with Section VI.I. of this Title V permit, any deviations no later than ten days after such deviation commenced. [Section VI.I. of this Title V permit]

Section III: Applicable Requirements and Compliance Demonstration

- v. The Permittee shall provide written monitoring reports to the commissioner by the 30th day following the end of each semi-annual period in accordance with Section VI.E. of this Title V permit. [Section VI.E. of this Title V permit]
- vi. The Permittee shall provide the records specified in Section III.A.2.c. of this Title V permit to the commissioner within thirty days of receipt of a written request from the commissioner or such sooner time as the commissioner may require. [RCSA §22a-174-4(d)(1)]

3. PM/PM₁₀/PM_{2.5}, Opacity, SO₂, VOC, and CO

a. Limitation or Restriction

- i. The Permittee shall not exceed the emission limits stated herein at any time for the gas turbine: [NSR Permit No. 137-0052]
 - (A) PM/PM₁₀/PM_{2.5} - 0.30 lb/hr (Natural Gas); 0.75 lb/hr (Distillate Fuel Oil No. 2) and 1.98 tpy.
 - (B) SO₂ - 0.07 lb/hr (Natural Gas); 1.05 lb/hr (Distillate Fuel Oil No. 2) and 1.75 tpy.
 - (C) VOC - 0.91 lb/hr (Natural Gas); 0.83 lb/hr (Distillate Fuel Oil No. 2) and 3.98 tpy.
 - (D) CO
 - (1) 1.60 lb/hr (Natural Gas); 0.62 lb/hr (Distillate Fuel Oil No. 2)
 - (2) 32 ppmvd @ 15% O₂ (Natural Gas); 12 ppmvd @ 15% O₂ (Distillate Fuel Oil No. 2)
 - (3) 7.01 tpy
- ii. Combustion Turbine No. 2 shall not exceed 10% opacity during any six-minute block average as measured by 40 CFR 60, Appendix A, Reference Method 9. [NSR Permit No. 137-0052]

b. Monitoring Requirements

- i. The Permittee shall demonstrate compliance with the PM/PM₁₀/PM_{2.5}, SO₂, VOC, and CO emissions limits listed in Section III.A.3.a.i. of this Title V permit by calculating emissions rates using emission factors from the following sources: AP-42, fourth edition, Section 3.1, October 1986 (for PM/PM₁₀/PM_{2.5} and VOC), AP-42, fifth edition, Section 3.1, April 2000 (for SO₂) and Manufacturer's Data, as specified in NSR Permit No. 137-0052 (for CO). However, this shall not preclude the commissioner from requiring other means to demonstrate compliance with the aforementioned emissions limits, as allowed by state or federal statute, law or regulation. [NSR Permit No. 137-0052]

c. Record Keeping Requirements

- i. The Permittee shall calculate and record the monthly and consecutive 12 month PM/PM₁₀/PM_{2.5}, SO₂, VOC, and CO emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. [NSR Permit No. 137-0052]

Section III: Applicable Requirements and Compliance Demonstration

- ii. The Permittee shall keep all required records for a period of no less than five years and shall submit such records to the commissioner upon request. [NSR Permit No. 137-0052]

d. Reporting Requirements

- i. On a daily basis, the Permittee shall review all recorded PM/PM₁₀/PM_{2.5}, SO₂, VOC, and CO emissions data and report to the commissioner, in accordance with Section VI.I. of this Title V permit, any deviations no later than ten days after such deviation commenced. [Section VI.I. of this Title V permit]
- ii. The Permittee shall provide the records specified in Section III.A.3.c. of this Title V permit to the commissioner within thirty days of receipt of a written request from the commissioner or such sooner time as the commissioner may require. [RCSA §22a-174-4(d)(1)]

4. Operation and Maintenance Requirements

a. Limitation or Restriction

- i. The Permittee shall operate and maintain the turbine in accordance with the manufacturer's specifications and written recommendations. [NSR Permit No. 137-0052]
- ii. The Permittee shall operate and maintain the turbine in a manner consistent with good air pollution control practices for minimizing emissions at all times including during malfunction. [NSR Permit No. 137-0052]
- iii. In the event that a malfunction causing either an emission exceedance or a parameter monitored out of recommended range is not corrected within three hours, the Permittee shall immediately institute shutdown of the turbine. [NSR Permit No. 137-0052]

b. Record Keeping Requirements

- i. The Permittee shall keep records of manufacturer's specifications and written recommendations for the operation and maintenance of the turbine. [RCSA §22a-174-33(o)(2)]
- ii. The Permittee shall keep records of conducted maintenance. [RCSA §22a-174-33(o)(2)]
- iii. The Permittee shall keep records of the occurrence and duration of any malfunction in the operation of the stationary gas turbine. Such records shall contain the following information: date of event; duration of event (minutes) and fuel being used during event. [40 CFR Part 60.7(b) and NSR Permit No. 137-0052].
- iv. The Permittee shall keep all required records for a period of no less than five years and shall submit such records to the commissioner upon request. [NSR Permit No. 137-0052]

c. Reporting Requirements

- i. The Permittee shall notify the commissioner in writing of any malfunction of the stationary gas turbine. The Permittee shall submit such notification within ten days of the malfunction. The notification shall include the following: [NSR Permit No. 137-0052]
 - a. a description of the malfunction and a description of the circumstances surrounding the cause or likely cause of such malfunction; and

Section III: Applicable Requirements and Compliance Demonstration

- b. a description of all corrective actions and preventive measures taken and/or planned with respect to such malfunction and the dates of such actions and measures.

B. GEU-001 TWO BOILERS [BOILER NOS. 1 (EU-003) AND 2 (EU-004)]

1. Fuel Consumption and Sulfur Content

a. Limitation or Restriction

- i. The boilers (GEU-001) shall only burn Natural Gas and Distillate Fuel Oil No. 2. [NSR Permit Nos. 137-0053 and 137-0054]
- ii. The Permittee shall only burn Oil No. 2 with a sulfur content no greater than the applicable limits set forth in RCSA Section 22a-174-19b and 40 CFR Part 60.42c(d). The fuel oil sulfur limits under 40 CFR Part 60 Subpart Dc shall apply at all times, including periods of startup, shutdown and malfunction. [40 CFR Part 60.42c(i) and NSR Permit Nos. 137-0053 and 137-0054]
- iii. The maximum fuel firing rates for each boiler shall not exceed the following limits: [NSR Permit Nos. 137-0053 and 137-0054]
 - (A) 20.93 Mft³/hr for Natural Gas.
 - (B) 149.5 gph of Distillate Fuel Oil No. 2.
- iv. The maximum fuel consumption over any consecutive 12 month period for the boilers combined shall not exceed the following limits: [NSR Permit No. 137-0052]
 - (A) 152.1 MMft³ for Natural Gas.
 - (B) 373 Mgal of Distillate Fuel Oil No. 2.
- v. Notwithstanding the fuel consumption limitations listed in condition B.1.a.iv (of Section III) of this Title V permit, the Maximum Heat Input over any consecutive 12 month period for each boiler shall not exceed 76,068.6 MMBtu. [NSR Permit Nos. 137-0053 and 137-0054]

b. Monitoring Requirements

- i. The Permittee shall use non-resettable totalizing fuel metering devices for each fuel to continuously monitor fuel feed to the boilers. [NSR Permit Nos. 137-0053 and 137-0054]

c. Record Keeping Requirements

- i. The Permittee shall keep records of monthly and consecutive 12 month combined total (for the boilers) fuel consumption for each fuel. The consecutive 12 month fuel consumption shall be determined by adding (for each fuel) the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [NSR Permit Nos. 137-0053 and 137-0054]
- ii. The Permittee shall calculate and record the monthly and consecutive 12 month heat input for each boiler. The monthly heat input shall be calculated using a Natural Gas heating value of 1000 Btu/ft³ and a Distillate Fuel Oil No. 2 heating value of 140,000 Btu/gal. The consecutive 12 month heat

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input shall be determined by adding the current month's heat input to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [NSR Permit Nos. 137-0053 and 137-0054]

- iii. The Permittee shall keep records of fuel supplier certification for each delivery of fuel. These records 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), the quantity purchased for combustion, the method used to determine such sulfur content, and a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR Part 60.41c. [NSR Permit Nos. 137-0053 and 137-0054]
- iv. The Permittee shall keep all applicable records listed under 40 CFR Part 60.48c(e). [40 CFR Part 60.48c(e)]
- v. The Permittee shall keep all required records for a period of no less than five years and shall submit such records to the commissioner upon request. [NSR Permit Nos. 137-0053 and 137-0054]

d. Reporting Requirements

- i. The Permittee shall provide written monitoring reports to the commissioner by the 30th day following the end of each semi-annual period in accordance with Section VI.E. of this Title V permit. [Section VI.E. of this Title V permit]
- ii. The Permittee shall provide the records specified in Section III.B.1.c. of this Title V permit to the commissioner within thirty days of receipt of a written request from the commissioner or such sooner time as the commissioner may require. [RCSA §22a-174-4(d)(1)]
- iii. The Permittee shall provide the records specified in Section III.B.1.c. iii. of this Title V permit to the Administrator by the 30th day following the end of each semi-annual period. The report shall also include a certified statement signed by the Permittee stating that the certifications submitted represent all of the oil combusted during the reporting period. [40 CFR 60.48c(e)(11) and (j)]
- iv. The Permittee shall submit reports to the Administrator as required by 40 CFR Part 60.48c(d) and (e). [40 CFR Part 60.48c(e)]

2. NO_x

a. Limitation or Restriction

- i. The Permittee shall not exceed the emission limits stated herein at any time for each boiler: [NSR Permit Nos. 137-0053 and 137-0054]
 - (A) 3.77 lb/hr (Natural Gas); 4.19 lb/hr (Distillate Fuel Oil No. 2)
 - (B) 0.18 lb/MMBtu (Natural Gas); 0.20 lb/MMBtu (Distillate Fuel Oil No. 2)
 - (C) 14.21 tpy (for the two boilers)

b. Monitoring Requirements

- i. The Permittee shall demonstrate compliance with the NO_x emissions limits listed in Section III.B.2.a.i. of this Title V permit by calculating emissions rates using the most recent stack test

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results. However, this shall not preclude the commissioner from requiring other means to demonstrate compliance with the aforementioned emissions limits, as allowed by state or federal statute, law or regulation. [NSR Permit Nos. 137-0053 and 137-0054]

- ii. The Permittee shall conduct stack testing for NO_x (for each boiler) within 180 days from the modification issue date of NSR Permit Nos. 137-0053 and 137-0054 (June 5, 2015) and it shall be conducted for the following operating modes: boiler only on Distillate Fuel Oil No. 2 and boiler only on Natural Gas. [NSR Permit Nos. 137-0053 and 137-0054]
- iii. The Permittee shall conduct recurrent emission testing for NO_x (for each boiler) within five years from the date of the last performance test. [NSR Permit Nos. 137-0053 and 137-0054]

c. Record Keeping Requirements

- i. The Permittee shall maintain records sufficient to determine compliance with the short-term emission limits listed in Section III.B.2.a.i. of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]
- ii. The Permittee shall calculate and record the monthly and consecutive 12 month NO_x emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [NSR Permit Nos. 137-0053 and 137-0054]
- iii. The Permittee shall comply with all applicable record keeping requirements set forth in RCSA Section 22a-174-22. [NSR Permit Nos. 137-0053 and 137-0054]
- iv. The Permittee shall keep all required records for a period of no less than five years and shall submit such records to the commissioner upon request. [NSR Permit Nos. 137-0053 and 137-0054]

d. Reporting Requirements

- i. The Permittee shall submit to the commissioner all applicable notifications as required by RCSA Section 22a-174-22. [NSR Permit Nos. 137-0053 and 137-0054]
- ii. NO_x emission test results shall be reported in units of lb/hr and lb/MMBtu and these results shall be submitted within 30 days after completion of testing. [NSR Permit Nos. 137-0053 and 137-0054]
- iii. On a daily basis, the Permittee shall review all recorded NO_x emissions data and report to the commissioner, in accordance with Section VI.I. of this Title V permit, any deviations no later than ten days after such deviation commenced. [Section VI.I. of this Title V permit]
- iv. The Permittee shall provide the records specified in Section III.B.2.c. of this Title V permit to the commissioner within thirty days of receipt of a written request from the commissioner or such sooner time as the commissioner may require. [RCSA §22a-174-4(d)(1)]

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3. PM/PM₁₀/PM_{2.5}, Opacity, SO₂, VOC, and CO

a. Limitation or Restriction

- i. The Permittee shall not exceed the emission limits stated herein at any time for each boiler: [NSR Permit Nos. 137-0053 and 137-0054]

(A) PM/PM₁₀/PM_{2.5}

- (1) 0.20 lb/hr (Natural Gas); 0.30 lb/hr (Distillate Fuel Oil No. 2)
- (2) 0.85 tpy (for the two boilers)

(B) SO₂

- (1) 0.01 lb/hr (Natural Gas); 1.06 lb/hr (Distillate Fuel Oil No. 2)
- (2) 1.35 tpy (for the two boilers)

(C) VOC

- (1) 0.06 lb/hr (Natural Gas); 0.03 lb/hr (Distillate Fuel Oil No. 2)
- (2) 0.18 tpy (for the two boilers)

(D) CO

- (1) 0.42 lb/hr (Natural Gas or Distillate Fuel Oil No. 2)
- (2) 1.52 tpy (for the two boilers)

- ii. Each boiler shall not exceed 10% opacity during any six-minute block average as measured by 40 CFR 60, Appendix A, Reference Method 9. [NSR Permit Nos. 137-0053 and 137-0054]

b. Monitoring Requirements

- i. The Permittee shall demonstrate compliance with the PM/PM₁₀/PM_{2.5}, SO₂, VOC, and CO emissions limits listed in Section III.B.3.a.i. of this Title V permit by calculating emissions rates using emission factors from the following sources: Manufacturer's Data, as specified in NSR Permit Nos. 137-0053 and 137-0054 (for PM/PM₁₀/PM_{2.5} and CO) and AP-42, fourth edition, Section 3.1, October 1986 (for VOC and SO₂). However, this shall not preclude the commissioner from requiring other means to demonstrate compliance with the aforementioned emissions limits, as allowed by state or federal statute, law or regulation. [NSR Permit No. 137-0053 and 137-0054]

c. Record Keeping Requirements

- i. The Permittee shall calculate and record the monthly and consecutive 12 month PM/PM₁₀/PM_{2.5}, SO₂, VOC, and CO emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. [NSR Permit Nos. 137-0053 and 137-0054]

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- ii. The Permittee shall keep all required records for a period of no less than five years and shall submit such records to the commissioner upon request. [NSR Permit Nos. 137-0053 and 137-0054]

d. Reporting Requirements

- i. On a daily basis, the Permittee shall review all recorded PM/PM₁₀/PM_{2.5}, SO₂, VOC, and CO emissions data for that day and report to the commissioner, in accordance with Section VI.I. of this Title V permit, any deviations no later than ten days after such deviation commenced. [Section VI.I. of this Title V permit]
- ii. The Permittee shall provide the records specified in Section III.B.3.c. of this Title V permit to the commissioner within thirty days of receipt of a written request from the commissioner or such sooner time as the commissioner may require. [RCSA §22a-174-4(d)(1)]

4. Work Practices and Management Standards

a. Limitation or Restriction

- i. The Permittee shall at all times operate and maintain the boilers (GEU-001) and any associated air pollution control 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 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 Part 63.11205(a)]
- ii. The Permittee shall comply with the applicable General Provisions listed in Table 8 of 40 CFR Part 63 Subpart JJJJJ. [40 CFR Part 63.11235]

b. Monitoring Requirements

- i. The Permittee shall conduct an initial tune-up for each boiler, as specified in 40 CFR Part 63.11214, and conduct tune-ups biennially for each boiler, as specified in 40 CFR Part 63.11223 to demonstrate continuous compliance. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. [40 CFR Part 63 Subpart JJJJJ Table 2 (No. 4) and 40 CFR Part 63.11223(b)]
- ii. The Permittee shall have a one-time energy assessment performed by a qualified energy assessor. The energy assessment shall meet the requirements specified in 40 CFR Part 63 Subpart JJJJJ Table 2. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements specified in Table 2 of Subpart JJJJJ, satisfies the energy assessment requirement. A facility that operates under an energy management program established through energy management systems compatible with ISO 50001, that includes the affected units, also satisfies the energy assessment requirement. [40 CFR Part 63 Subpart JJJJJ Table 2 (No. 16) and Part 63.11201(b)]
- iii. The Permittee shall demonstrate initial compliance with the aforementioned monitoring and testing requirements, no later than the applicable compliance date specified in 40 CFR Part 63.11196 and according to the applicable provisions in 40 CFR Part 63.7(a)(2). [40 CFR Part 63.11210(c)]

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c. Record Keeping Requirements

- i. The Permittee shall maintain onsite and submit, if requested by the Administrator, a report containing the information specified in 40 CFR Part 63.11223(b)(6). [40 CFR Part 63.11223(b)(6)]
- ii. The Permittee shall maintain all applicable records specified in 40 CFR Part 63.11225(c). These records must be in a form suitable and readily available for expeditious review, as specified in 40 CFR Part 63.11225(d). [40 CFR Part 63.11225(c) and (d)]
- iii. The Permittee shall keep all records for five years following the date of each recorded action. [40 CFR Part 63.11225(d)]

d. Reporting Requirements

- i. The Permittee shall submit a signed certification in the Notification of Compliance Status report indicating that an energy assessment of each in boiler in GEU-001 and their energy use systems was completed according to 40 CFR Part 63 Subpart JJJJJ Table 2 and is an accurate depiction of the facility. [40 CFR Part 63.11214(c)]
- ii. The Permittee shall submit a signed statement in the Notification of Compliance Status report that indicates that tune-ups for each boiler in GEU-001 have been conducted. [40 CFR Part 63.11214(b)]
- iii. The Permittee shall submit all applicable notifications listed in 40 CFR Part 63.11225(a) by the dates and in the manner specified in that section. [40 CFR Part 63.11225(a)]
- iv. The Permittee must prepare (as frequently as, and by the date specified in 40 CFR Part 63.11225(b)), and submit to the delegated authority upon request, a compliance certification report containing the applicable information listed in 40 CFR Part 63.11225(b). [40 CFR Part 63.11225(b)]

C. GEU-002 FOUR EMERGENCY GENERATORS [EU-005, EU-008, EU-010 AND EU-013]

1. Maximum Hours of Operation

a. Limitation or Restriction

- i. The Permittee shall operate the emergency engines (EU-005, EU-010 and EU-013) for a maximum of 300 hours each during any 12 month rolling aggregate. [RCSA §22a-174-3b(e)(2)(C)]
- ii. The Permittee may operate the emergency engines (GEU-002) for a maximum of 100 hours per calendar year each, for any combination of the purposes specified in 40 CFR Part 63.6640(f)(2) (EU-005, EU-008 and EU-010 only) and 40 CFR Part 60.4211(f)(2) (EU-013 only), which includes 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 engines. Notwithstanding the abovementioned provisions, EU-005, EU-010 and EU-013 shall be operated in a manner such that the engines remain classified as an “emergency engine” in accordance with RCSA Section 22a-174-3b(e). [RCSA §22a-174-3b(e)(2) and 40 CFR Part 63.6640(f)(2)]
- iii. The Permittee may operate EU-008 up to 50 hours per calendar year in non-emergency situations, but those 50 hours shall be counted towards the 100 hours per year provided for the purposes specified in 40 CFR Part 63.6640(f)(2). The 50 hours per year for non-emergency situations shall be used in accordance with the applicable specifications provided in 40 CFR Part 63.6640(f)(4). [40 CFR Part 63.6640(f)(2) and(4)]

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- iv. The Permittee shall not operate the emergency engines (GEU-002) 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.” [RCSA §22a-174-22(b)(3)]

b. Monitoring Requirements

- i. The Permittee shall install non-resettable hour meters, if they are not already installed, for the emergency engines (GEU-002). [40 CFR Part 60.4209(a) and 40 CFR Part 63.6625(f)]

c. Record Keeping Requirements

- i. The Permittee shall document and keep records of the hours of operation of the emergency engines (GEU-002) that is recorded through the non-resettable hour meters. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency. Furthermore, these records shall be used to determine compliance with the applicable limitations set forth in Section III.C.1.a. of this Title V Permit. [RCSA §22a-174-3b(e)(3), 40 CFR Part 60.4214(b) and 40 CFR Part 63.6655(f)]
- ii. The Permittee shall also document and keep records of the number of hours spent for non-emergency operation for EU-008. [40 CFR Part 63.6655(f)]
- iii. If any of the engines (EU-005, EU-008 and EU-010) are used for the purposes specified in 40 CFR Part 63.6640(f)(2)(ii) or (iii) or (f)(4)(ii) (EU-008 only), the Permittee shall keep records of the notification of the emergency situation, and the date, start time and end time of engine operation for these purposes. [40 CFR Part 63.6655(f)]
- iv. The Permittee shall keep all applicable records in a form suitable and readily available for expeditious review according to 40 CFR Part 63.10(b)(1), and all records must be kept for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report or record. [RCSA §22a-174-3b(e)(3) and CFR Part 63.6660]

d. Reporting Requirements

- i. The Permittee shall make the applicable records listed in Section III.C.1.c. of this Title V permit available upon request of the commissioner. [RCSA §22a-174-3b(e)(3)]
- ii. The Permittee shall submit an annual report according to the requirements outlined in 40 CFR Part 63.6650(b), (c) and (h) for EU-005, EU-008 and EU-010, when applicable. [40 CFR Part 63.6650(b), (c) and (h)]
- iii. The Permittee shall submit an annual report according to the requirements listed in 40 CFR Part 60.4214(d) for EU-013, when applicable. [40 CFR Part 60.4214(d)]

2. Work Practices and Maintenance Requirements

a. Limitation or Restriction

- i. The Permittee shall change the oil and filter of each emergency engine (EU-005, EU-008 and EU-010) every 500 hours of operation or annually, whichever comes first. The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement. The oil analysis program shall meet the requirements of 40 CFR Part 63.6625(i). [40 CFR Part 63 Subpart ZZZZ Table 2d(4)(a)]

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- ii. The Permittee shall inspect the air cleaner of each emergency engine (EU-005, EU-008 and EU-010) every 1,000 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR Part 63 Subpart ZZZZ Table 2d(4)(b)]
- iii. The Permittee shall inspect all the hoses and belts of each emergency engine (EU-005, EU-008 and EU-010) every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR Part 63 Subpart ZZZZ Table 2d(4)(c)]
- iv. The Permittee shall minimize all the emergency engines' (EU-005, EU-008 and EU-010) time spent at idle during startup and minimize the engines' startup time to a period needed for appropriate and safe loading of the engines, not to exceed 30 minutes. [40 CFR Part 63.6625(h)]
- v. If any of the emergency engines (EU-005, EU-008 and EU-010) are operating during an emergency and it is not possible to shutdown the engine in order to perform the work practices and/or maintenance requirements listed in Section III.C.2.a.i. through iii. of this Title V permit, or if performing the work practice and/or maintenance requirement on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice and/or maintenance requirement can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice and/or maintenance requirement should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. [40 CFR Part 63 Subpart ZZZZ Table 2d Footnote 2]
- vi. The Permittee shall at all times operate and maintain the emergency engines (EU-005, EU-008 and EU-010), 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 operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR Part 63.6605(b)]
- vii. The Permittee shall operate and maintain the emergency engines (EU-005, EU-008 and EU-010) and after-treatment control devices (if any) according to the manufacturer's emissions-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR Part 63.6625(e)]
- viii. The Permittee shall operate and maintain EU-013 and any corresponding control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to EU-013. [40 CFR Part 60.4211(a)]
- ix. In the event that the Permittee does not install, configure, operate, and maintain EU-013 and any corresponding control device according to the manufacturer's emission-related written instructions or changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall comply with the applicable requirements set forth in 40 CFR Part 60.4211(g)(3) and 40 CFR Part 60.4212. [40 CFR Part 60.4211(g)]
- x. The Permittee shall comply with the applicable General Provisions listed in Table 8 of 40 CFR Part 63 Subpart ZZZZ (EU-005, EU-008 and EU-010 only) and Table 8 of 40 CFR Part 60 Subpart IIII (EU-013 only). [40 CFR Part 60.4218 and 40 CFR Part 63.6665]

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b. Record Keeping Requirements

- i. The Permittee shall keep records of the maintenance conducted on all the emergency engines (EU-005, EU-008 and EU-010) in order to demonstrate that all the emergency engines were operated and maintained according to their maintenance plans, and records of all required maintenance performed on the air pollution control and monitoring equipment (if any). [40 CFR Part 63.6655(e) and (a)(4)]
- ii. The Permittee shall keep records demonstrating continuous compliance with condition C.2.a.vii. (of Section III) of this Title V permit. [40 CFR Part 63.6655(d)]
- iii. The Permittee shall keep records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment (if any), and records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR Part 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation for EU-005, EU-008 and EU-010. [40 CFR Part 63.6655(a)(2) and (5)]
- iv. If the Permittee opts to utilize the oil analysis program in order to extend the specified oil change requirement listed in Section III.C.2.a.i. of this Title V permit, the Permittee shall 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 engines (EU-005, EU-008 and EU-010). The analysis program must be part of the maintenance plan for the previously mentioned engines. [40 CFR Part 63.6625(i)]
- v. The Permittee shall keep all applicable records listed in RCSA Section 22a-174-22(l). [RCSA §22a-174-22(l)]
- vi. The Permittee shall keep a copy of each notification and report submitted to comply with 40 CFR Part 63 Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status, according to the requirement in 40 CFR Part 63.10(b)(2)(xiv). [40 CFR Part 63.6655(a)(1)]
- vii. The Permittee shall keep all applicable records in a form suitable and readily available for expeditious review according to 40 CFR Part 63.10(b)(1), and all records must be kept for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report or record. [RCSA §22a-174-3b(e)(3) and 40 CFR Part 63.6660]

c. Reporting Requirements

- i. The Permittee shall report each instance in which it did not meet the requirements listed in conditions C.2.a.i. through C.2.a.iv. (of Section III) of this Title V permit. These must be reported according to the requirements specified in 40 CFR Part 63.6650 and Table 2d Footnote 2, as applicable. [40 CFR Part 63.6640(b) and 40 CFR Part 63 Subpart ZZZZ Table 2d Footnote 2]
- ii. The Permittee shall report each instance it did not meet the applicable requirements in Table 8 of 40 CFR Part 63 Subpart ZZZZ. [40 CFR Part 63.6640(e)]
- iii. The Permittee shall submit all applicable reports specified in RCSA Section 22a-174-22(l). [RCSA §22a-174-22(l)]

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3. Maximum Sulfur Content in Fuel

a. Limitation or Restriction

- i. The sulfur content in any nongaseous fuel consumed by the engines (EU-005, EU-010 and EU-013) shall not exceed 15 parts per million (ppm). [RCSA §22a-174-3b(e)(2)(D), 40 CFR Part 60.4207(b) and 40 CFR Part 63.6604(b)]
- ii. The sulfur content in any fuel consumed by EU-008 shall not exceed the applicable sulfur content limits set forth in Table 19b-1 of RCSA Section 22a-174-19b and 40 CFR Part 63.6604(b). [RCSA §22a-174-19b(d)(2) and 40 CFR Part 63.6604(b)]

b. Record Keeping Requirements

- i. The Permittee shall maintain records of the sulfur content of the fuel(s) combusted and the quantity purchased for combustion. A written certification or a written contract with a fuel supplier is sufficient if the certification or contract identifies: [RCSA §22a-174-19b(g)(3)(A)-(D)]
 - (A) The name of the fuel seller;
 - (B) The type of fuel purchased
 - (C) The sulfur content of the fuel purchased; and
 - (D) The method used to determine the sulfur content of the fuel purchased.
- ii. The Permittee shall keep records on the premises indicating continual compliance with all above conditions at all times and shall make them available upon request of the commissioner. The records shall be maintained for five years from the date such record is created. [RCSA §22a-174-3b(e)(3)]

c. Reporting Requirements

- i. The Permittee shall report the sulfur content for the fuel burned in the diesel fired emergency engines in the annual emission statement. [RCSA §22a-174-4(d)(1)]

4. Emission Standards

a. Limitation or Restriction

- i. EU-013 shall comply with the emission standards for new nonroad compression ignition engines listed in 40 CFR Part 60.4202, for all pollutants, for the same model year and maximum engine power for the engine. [40 CFR Part 60.4205(b)]
- ii. The Permittee shall operate and maintain EU-013 such that the applicable emission standards are met over the entire life of the engine. [40 CFR Part 60.4206]
- iii. The Permittee shall comply with the emission standards listed in Section III.C.4.a.i. of this Title V permit, by purchasing an engine certified to the aforementioned emission standards. Additionally, the engine shall be installed and configured according to the manufacturer's emission-related specifications. [40 CFR Part 60.4211(c)]

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b. Record Keeping Requirements

- i. The Permittee shall maintain records sufficient to determine compliance with Section III.C.4.a. of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]
- ii. The Permittee shall maintain records as described, for a minimum of five years commencing on the date such records were created. [Section VI.F of this Title V permit]

c. Reporting Requirements

- i. The Permittee shall provide the records specified in Section III.C.4.b. of this Title V permit to the commissioner within thirty days of receipt of a written request from the commissioner or such sooner time as the commissioner may require. [RCSA §22a-174-4(d)(1)]

D. EU-011 ETHYLENE OXIDE STERILIZATION SYSTEM

1. Sterilization Loads

a. Limitation or Restriction

- i. The Permittee shall sterilize full loads of items having a common aeration time, except under medically necessary circumstances, as that term is defined in 40 CFR Part 63.10448. [40 CFR Part 63.10390]
- ii. The Permittee shall comply with the applicable General Provisions listed in Table 1 of 40 CFR Part 63 Subpart WWWW. [40 CFR Part 63.10440]

b. Monitoring Requirements

- i. The Permittee shall monitor the date and time of each sterilization cycle. [RCSA §22a-174-33(o)(2)]

c. Record Keeping Requirements

- i. The Permittee shall record the date and time of each sterilization cycle, whether each sterilization cycle contains a full load of items, and if not, a statement from a hospital central services staff, a hospital administrator, or a physician that it was medically necessary. [40 CFR Part 63.10420]
- ii. The Permittee shall maintain a copy of the Initial Notification of Compliance Status that was submitted to the commissioner and Administrator. [40 CFR Part 63.10432]
- iii. The Permittee shall keep all records in a form suitable and readily available for expeditious review and these records shall be kept on-site for five years following the date of each record. [40 CFR Part 63.10434(a)-(c)]

d. Reporting Requirements

- i. The Permittee shall submit to the commissioner and Administrator an Initial Notification of Compliance Status, which includes the following: [40 CFR Part 63.10430(a)-(c)]

(A) The name and address of the Permittee.

(B) The address of the location of the Ethylene Oxide Sterilization System.

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- (C) An identification of the standard and other applicable requirements in 40 CFR Part 63 Subpart WWWW that serve as the basis of the notification and the source's compliance date.
 - (D) A brief description of the sterilization facility, including the number of ethylene oxide sterilizers, the size (volume) of each, the number of aeration units, if any, the amount of annual ethylene oxide usage at the facility, the control technique used for each sterilizer, and typical number of sterilization cycles per year.
 - (E) A statement that the Ethylene Oxide Sterilization System is an area source.
 - (F) The Initial Notification of Compliance Status should have been submitted no later than 180 calendar days following December 29, 2008 and to the appropriate authority(ies) specified in 40 CFR Part 63.10430(b).
- ii. The Permittee shall provide the records specified in Section III.D.1.c. of this Title V permit to the commissioner within thirty days of receipt of a written request from the commissioner or such sooner time as the commissioner may require. [RCSA §22a-174-4(d)(1)]

E. EU-012 COGENERATION ENGINE

1. Fuel Consumption and Maximum Hours of Operation

a. Limitation or Restriction

- i. The cogeneration engine (EU-012) shall only burn Natural Gas. [NSR Permit No. 137-0164]
- ii. The maximum natural gas firing rate for the engine shall not exceed 25.84 Mft³/hr. [NSR Permit No. 137-0164]
- iii. The maximum annual fuel consumption over any consecutive 12 month period for the engine shall not exceed 226.4 MMcf. [NSR Permit No. 137-0164]
- iv. Startup and shutdown events, in aggregate, for the cogeneration engine shall not exceed 100 hours over any calendar year. Furthermore, the duration of startup shall not exceed 60 minutes and the duration of shutdown shall not exceed 30 minutes. [NSR Permit No. 137-0164]

b. Monitoring Requirements

- i. The Permittee shall continuously monitor fuel consumption using a non-resettable totalizing fuel meter. [NSR Permit No. 137-0164]

c. Record Keeping Requirements

- i. The Permittee shall make and keep records of monthly and consecutive 12 month fuel consumption. The consecutive 12 month fuel consumption shall be determined by adding (for each fuel) the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [NSR Permit No. 137-0164]
- ii. The Permittee shall make and keep records of the daily and every 8760 hours of operation. [NSR Permit No. 137-0164]

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- iii. The Permittee shall also make and keep records of the duration of startup and shutdown events, in aggregate, demonstrating compliance with Section III.E.1.iv. of this Title V permit. [NSR Permit No. 137-0164]
- iv. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request. [NSR Permit No. 137-0164]

d. Reporting Requirements

- i. The Permittee shall provide written monitoring reports to the commissioner by the 30th day following the end of each semi-annual period in accordance with Section VI.E. of this Title V permit. [Section VI.E. of this Title V permit]
- ii. The Permittee shall provide the records specified in Section III.A.1.c. of this Title V permit to the commissioner within thirty days of receipt of a written request from the commissioner or such sooner time as the commissioner may require. [RCSA §22a-174-4(d)(1)]

2. NO_x, CO and VOC

a. Limitation or Restriction

- i. The Permittee shall not exceed the short-term emissions limits stated herein except during periods of start-up and shutdown, unless otherwise noted: [NSR Permit No. 137-0164]

(A) NO_x - 1.14 lb/hr, 0.12 gm/bhp-hr, 0.38 lb/MW-hr and 5.40 tpy.

(B) CO - 0.12 lb/hr, 0.01 gm/bhp-hr and 1.28 tpy.

(C) VOC - 0.06 lb/hr, 0.01 gm/bhp-hr and 0.27 tpy.

- ii. The Permittee shall not exceed the following start-up and shutdown emission limits: [NSR Permit No. 137-0164]

(A) NO_x - 9.66 lb/hr.

(B) CO - 14.99 lb/hr.

(C) VOC - 0.43 lb/hr.

b. Monitoring Requirements

- i. The Permittee shall demonstrate compliance with the NO_x, CO and VOC emissions limits listed in Section III.E.2.a. of this Title V permit by calculating emissions rates using manufacturer's data or the most recent stack test results. However, this shall not preclude the commissioner from requiring other means to demonstrate compliance with the aforementioned emissions limits, as allowed by state or federal statute, law or regulation. [NSR Permit No. 137-0164]
- ii. The Permittee is not required to demonstrate compliance with the short-term emission limits stated herein during the initial shakedown period. Emissions during the initial shakedown period shall be counted towards the annual emission limits stated herein. The shakedown period shall not extend beyond the required date for the initial performance tests. [NSR Permit No. 137-0164]

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- iii. The Permittee shall conduct initial performance testing for NO_x, CO and VOC within 60 days of achieving the maximum production rate, but not later than 180 days after initial startup. [NSR Permit No. 137-0164]
- iv. The Permittee shall conduct recurrent emission testing for NO_x, CO and VOC every three years or every 8,760 hours of operation, whichever comes first, and in accordance with the applicable requirements specified in 40 CFR Part 60.4244. [NSR Permit No. 137-0164 and 40 CFR Part 60.4243(b)(2)]
- v. The Permittee shall continuously monitor and continuously record the SCR urea solution injection rate (lb/hr or gal/hr), operating temperature (°F) and the pressure drop (inches of water) across the catalyst bed. The Permittee shall maintain these parameters within the ranges recommended by the manufacturer to achieve compliance with the emission limits listed in this permit. [NSR Permit No. 137-0164]
- vi. The Permittee shall continuously monitor and continuously record the oxidation catalyst inlet temperature (°F). The Permittee shall maintain this parameter within the ranges recommended by the manufacturer to achieve compliance with the emission limits listed in this permit. [NSR Permit No. 137-0164]
- vii. The Permittee shall minimize emissions during periods of startup and shutdown by starting the urea solution injection as soon as minimum catalyst temperature is reached and ensuring the oxidation catalyst is not bypassed during startup or shutdown. [NSR Permit No. 137-0164]

c. Record Keeping Requirements

- i. The Permittee shall maintain records sufficient to determine compliance with the short-term emission limits listed in Section III.E.2.a. of this Title V permit. [RCSA §22a-174-33(j)(1)(K) and 40 CFR Part 60.4245(a)(4)]
- ii. The Permittee shall calculate and record the monthly and consecutive 12 month NO_x, CO, and VOC emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emissions limitations listed in Section III.E.2.a.i. of this Title V permit. [NSR Permit No. 137-0164]
- iii. The Permittee shall make and keep records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of this equipment; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. Such records shall contain the following information: type of event (startup, shutdown, or malfunction); equipment affected; date of event; duration of event (minutes); fuel being used during event; and total NO_x, VOC, and CO emissions emitted (lb) during the event. [40 CFR Part 60.7(b)]
- iv. The Permittee shall make and keep records of each delivery of urea solution. The records shall include: the date of delivery; the name of the supplier; the quantity of urea solution delivered; and the percentage of urea in solution, by weight. [NSR Permit No. 137-0164]

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- v. The Permittee shall make and keep records of the inspection and maintenance of the engine, SCR and oxidation catalyst. The records shall include: the name of the person; the date; the results or actions; and the date the catalysts are replaced. [NSR Permit No. 137-0164]
- vi. The Permittee shall keep all applicable records listed in RCSA Section 22a-174-22(1). [RCSA §22a-174-22(1)]
- vi. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request. [NSR Permit No. 137-0164]

d. Reporting Requirements

- i. The Permittee shall comply with all applicable reporting requirements of RCSA Section 22a-174-22(1). [NSR Permit No. 137-0164]
- ii. NO_x, CO and VOC emission test results shall be reported in units of lb/hr and gm/hp-hr or ppmvd at 15% O₂, and these results shall be submitted within 60 days after completion of testing. [NSR Permit No. 137-0164 and 40 CFR Part 60.4245(d)]
- iii. For testing being conducted pursuant to 40 CFR Part 60, the test report shall be submitted within 180 days after the initial startup date or within 60 days after reaching maximum production rate. [40 CFR Part 60.8(a)]
- iv. On a daily basis, the Permittee shall review all recorded NO_x, CO and VOC emissions data and report to the commissioner, in accordance with Section VI.I. of this Title V permit, any deviations no later than ten days after such deviation commenced. [Section VI.I. of this Title V permit]
- v. The Permittee shall provide the records specified in Section III.E.2.c. of this Title V permit to the commissioner within thirty days of receipt of a written request from the commissioner or such sooner time as the commissioner may require. [RCSA §22a-174-4(d)(1)]

3. PM/PM₁₀/PM_{2.5}, Opacity and SO₂

a. Limitation or Restriction

- i. The Permittee shall not exceed the short-term emissions limits stated herein except during periods of start-up and shutdown, unless otherwise noted: [NSR Permit No. 137-0164]
 - (A) PM/PM₁₀/PM_{2.5} - 0.26 lb/hr and 1.13 tpy.
 - (B) SO₂ - 0.02 lb/hr and 0.07 tpy.
- ii. The cogeneration engine shall not exceed 10% opacity during any six-minute block average or 40% reduced to a one-minute block average; as measured by 40 CFR 60, Appendix A, Reference Method 9. [NSR Permit No. 137-0164]

b. Monitoring Requirements

- i. The Permittee shall demonstrate compliance with the PM/PM₁₀/PM_{2.5} and SO₂ emissions limits listed in Section III.E.3.a.i. of this Title V permit by calculating emissions rates using AP-42, Fifth edition, Section 3.2 (August 2000) emissions factors. However, this shall not preclude the commissioner from

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requiring other means to demonstrate compliance with the aforementioned emissions limits, as allowed by state or federal statute, law or regulation. [NSR Permit No. 137-0164]

- ii. The Permittee is not required to demonstrate compliance with the short-term emission limits stated herein during the initial shakedown period. Emissions during the initial shakedown period shall be counted towards the annual emission limits stated herein. The shakedown period shall not extend beyond the required date for the initial performance tests. [NSR Permit No. 137-0164]
- iii. If required by the commissioner, the Permittee shall measure particulate matter emissions using Method 5 of 40 CFR 60, Appendix A, or other equivalent EPA approved test method. [RCSA §22a-174-5(b)(5)]
- iv. If opacity testing is required by the commissioner, EPA Method 9 (or equivalent EPA approved Method) will be used to determine opacity. [RCSA §22a-174-18(b)(1)]

c. Record Keeping Requirements

- i. The Permittee shall maintain records sufficient to determine compliance with the short-term emission limits listed in Section III.E.3.a.i. of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]
- ii. The Permittee shall calculate and record the monthly and consecutive 12 month PM/PM₁₀/PM_{2.5}, and SO₂ emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emissions limitations listed in Section III.E.3.a.i. of this Title V permit. [NSR Permit No. 137-0164]
- iii. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request. [NSR Permit No. 137-0164]

d. Reporting Requirements

- i. On a daily basis, the Permittee shall review all recorded PM/PM₁₀/PM_{2.5} and SO₂ emissions data and report to the commissioner, in accordance with Section VI.I. of this Title V permit, any deviations no later than ten days after such deviation commenced. [Section VI.I. of this Title V permit]
- ii. The Permittee shall provide the records specified in Section III.E.3.c. of this Title V permit to the commissioner within thirty days of receipt of a written request from the commissioner or such sooner time as the commissioner may require. [RCSA §22a-174-4(d)(1)]

4. Hazardous Air Pollutants

a. Limitation or Restriction

- i. The Permittee shall not exceed the short-term emissions limits stated herein except during periods of start-up and shutdown, unless otherwise noted: [NSR Permit No. 137-0164]

(A) Acrolein - 0.02 lb/hr.

(B) Ammonia - 0.12 lb/hr.

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(C) Formaldehyde - 0.47 lb/hr.

b. Monitoring Requirements

- i. The Permittee shall demonstrate compliance with the Acrolein, Ammonia and Formaldehyde emissions limits listed in Section III.E.4.a.i. of this Title V permit by calculating emissions rates using AP-42, Fifth edition, Section 3.2 (August 2000) emissions factors, manufacturer's data, or the most recent stack test results, as applicable. However, this shall not preclude the commissioner from requiring other means to demonstrate compliance with the aforementioned emissions limits, as allowed by state or federal statute, law or regulation. [NSR Permit No. 137-0164]
- ii. The Permittee is not required to demonstrate compliance with the short-term emission limits stated herein during the initial shakedown period. Emissions during the initial shakedown period shall be counted towards the annual emission limits stated herein. The shakedown period shall not extend beyond the required date for the initial performance tests. [NSR Permit No. 137-0164]
- iii. The Permittee shall conduct initial testing for Acrolein, Ammonia and Formaldehyde within 60 days of achieving the maximum production rate, but not later than 180 days after initial startup. [NSR Permit No. 137-0164]
- iv. The Permittee shall conduct recurrent emission testing for Acrolein, Ammonia and Formaldehyde within five years form the date of the previous of such pollutants from this unit. [NSR Permit No. 137-0164]

c. Record Keeping Requirements

- i. The Permittee shall maintain records sufficient to determine compliance with the short-term emission limits listed in Section III.E.4.a.i. of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]
- ii. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request. [NSR Permit No. 137-0164]

d. Reporting Requirements

- i. Acrolein, Ammonia and Formaldehyde emission test results shall be reported in units of lb/hr, $\mu\text{g}/\text{m}^3$ and ppmvd at 15% O_2 , and these results shall be submitted within 60 days after completion of testing. [NSR Permit No. 137-0164]
- ii. On a daily basis, the Permittee shall review all recorded Acrolein, Ammonia and Formaldehyde emissions data and report to the commissioner, in accordance with Section VI.I. of this Title V permit, any deviations no later than 24 hours after such deviation commenced. [Section VI.I. of this Title V permit]
- iii. The Permittee shall provide the records specified in Section III.E.4.c. of this Title V permit to the commissioner within thirty days of receipt of a written request from the commissioner or such sooner time as the commissioner may require. [RCSA §22a-174-4(d)(1)]

Section III: Applicable Requirements and Compliance Demonstration

5. Operation and Maintenance

a. Limitation or Restriction

- i. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations. [NSR Permit No. 137-0164]
- ii. The Permittee shall properly operate the control equipment at all times that this equipment is in operation and emitting air pollutants. [NSR Permit No. 137-0164]
- iii. The Permittee shall operate and maintain this equipment, any air pollution control equipment, and any monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown and malfunction. [NSR Permit No. 137-0164 and 40 CFR Part 60.4243(b)(2)(ii)]
- iv. Construction and operation of the cogeneration engine shall not preclude the Permittee from complying with the applicable CEM requirements for the gas turbine (NSR Permit No. 137-0052), as set forth in RCSA Section 22a-174-4 and 40 CFR Part 60 Subpart GG. [NSR Permit No. 137-0164]
- v. The Permittee shall comply with the applicable General Provisions listed in Table 3 of 40 CFR Part 60 Subpart JJJJ. [40 CFR Part 60.4246]
- vi. In the event that a malfunction causing either an emission exceedance or a parameter monitored out of recommended range is not corrected within three hours, the Permittee shall immediately institute shutdown of the engine. [NSR Permit No. 137-0164]

b. Monitoring Requirements

- i. The Permittee shall perform inspections of the control devices as recommended by the manufacturer. [NSR Permit No. 137-0164]

c. Record Keeping Requirements

- i. The Permittee shall keep records of manufacturer's specifications and written recommendations for the operation and maintenance of the cogeneration engine. [RCSA §22a-174-33(o)(2)]
- ii. The Permittee shall keep a maintenance plan and records of conducted maintenance. [40 CFR Part 60.4243(b)(2)(ii) and 60.4245(a)(2)]
- iii. 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 Part 60.4245(a)(1)]
- iv. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request. [NSR Permit No. 137-0164]

d. Reporting Requirements

- i. The Permittee shall notify the commissioner, in writing, of the date of commencement of construction and the date of initial startup of this equipment. Such written notifications shall be submitted no later than 30 days after the subject event. The commissioner may request additional reporting to demonstrate compliance with the requirements of this permit, as allowed by state or federal statute, law or regulation. [NSR Permit No. 137-0164]

Section III: Applicable Requirements and Compliance Demonstration

- ii. The Permittee shall submit all the (applicable) required notifications and reports listed in 40 CFR Part 60 Subpart JJJJ, including an initial notification as required in 40 CFR Part 60.7(a)(1) and 40 CFR Part 60.4245(c). [40 CFR Part 60.4245]
- iii. The Permittee shall notify the commissioner in writing of any malfunction of the engine, the air pollution control equipment or the continuous monitoring system. The Permittee shall submit such notification within ten days of the malfunction. The notification shall include the following: a description of the malfunction and a description of the circumstances surrounding the cause or likely cause of such malfunction; and a description of all corrective actions and preventive measures taken and/or planned with respect to such malfunction and the dates of such actions and measures. [NSR Permit No. 137-0164]

F. 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.
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.)

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- 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).

G. 112(r) ACCIDENTAL RELEASE REQUIREMENTS

Should this stationary source, as defined in 40 CFR section 68.3, become subject to the accidental release prevention regulations in 40 CFR Part 68, the Permittee shall submit a risk management plan (RMP) to the Administrator by the date specified in section 68.10.

H. ASBESTOS REQUIREMENTS

Should this stationary source, as defined in 40 CFR section 61.145, become subject to the national emission standard for asbestos regulations in subpart M of 40 CFR Part 61 when conducting any renovation or demolition at this premises, then the owner or operator shall submit proper notification as described in 40 CFR section 61.145(b) and shall comply with all other applicable requirements of including but not limited to subpart M.

Section IV: Compliance Schedule

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

Section V: State Enforceable Terms and Conditions

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

SECTION V: STATE ENFORCEABLE TERMS AND CONDITIONS

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

Section V: State Enforceable Terms and Conditions

- F.** Hazardous Air Pollutants (HAPs): The Permittee shall operate in compliance with the regulations for the control of HAPs as set forth in RCSA §22a-174-29.
- 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
 - 1. For the period beginning July 1, 2014 and ending June 30, 2018, the Permittee shall not use No. 2 heating oil that exceeds five hundred parts per million of sulfur by weight as set forth in CGS §16a-21a(a)(2)(A); and
 - 2. On or after July 1, 2018, the Permittee shall not use No. 2 heating oil that exceeds five hundred parts per million of sulfur by weight as set forth in CGS §16a-21a(a)(2)(B).
- K.** The Permittee shall comply with the requirements for Architectural and Industrial Maintenance Coatings as set forth in RCSA §22a-174-41.
- L.** The Permittee shall comply with the requirements for Adhesives and Sealants as set forth in RCSA §22a-174-44.

Section VI: Title V Requirements

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

SECTION VI: TITLE V REQUIREMENTS

A. SUBMITTALS TO THE COMMISSIONER & ADMINISTRATOR

The date of submission to the commissioner of any document required by this Title V permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this Title V permit, including, but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this Title V permit, the word "day" means calendar day. Any document or action which is required by this Title V permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.

Any document required to be submitted to the commissioner under this Title V permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of the Director; Engineering & Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

Any submittal to the Administrator of the Environmental Protection Agency shall be in a computer-readable format and addressed to: U.S. EPA New England, 5 Post Office Square, Suite 100 (OES04-2), Boston, Massachusetts 02109, Attn: Air Clerk.

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

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

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

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

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

Section VI: Title V Requirements

1. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding 25 million dollars in second quarter 1980 dollars; or
2. The delegation of authority to the duly authorized representative has been given in writing by an officer of the corporation in accordance with corporate procedures and the following:
 - i. Such written authorization specifically authorizes a named individual, or a named position, having responsibility for the overall operation of the Title V premises or activity,
 - ii. Such written authorization is submitted to the commissioner and has been approved by the commissioner in advance of such delegation. Such approval does not constitute approval of corporate procedures, and
 - iii. If a duly authorized representative is a named individual in an authorization submitted under subclause ii. of this subparagraph and a different individual is assigned or has assumed the responsibilities of the duly authorized representative, or, if a duly authorized representative is a named position in an authorization submitted under subclause ii. of this subparagraph and a different named position is assigned or has assumed the duties of the duly authorized representative, a new written authorization shall be submitted to the commissioner prior to or together with the submission of any application, document, report or certification signed by such representative.

D. ADDITIONAL INFORMATION [RCSA §22a-174-33(j)(1)(X), RCSA §22a-174-33(h)(2)]

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier, including information to determine whether cause exists for modifying, revoking, reopening, reissuing, or suspending this Title V permit or to determine compliance with this Title V permit.

In addition, the Permittee shall submit information to address any requirements that become applicable to the subject source and shall submit correct, complete, and sufficient information within 15 days of the applicant's becoming aware of any incorrect, incomplete, or insufficient submittal, during the pendency of the application, or any time thereafter, with an explanation for such deficiency and a certification pursuant to RCSA §22a-174-2a(a)(5).

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

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

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

Section VI: Title V Requirements

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

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

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

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

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

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

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

Section VI: Title V Requirements

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

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

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

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

Notwithstanding Section VI.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).

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

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

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

This Title V permit shall not be deemed to:

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

Section VI: Title V Requirements

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

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

N. PERMIT AVAILABILITY

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

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

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

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

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

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

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

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

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

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

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

Section VI: Title V Requirements

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

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

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

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

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

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

V. TRANSFERS [RCSA §22a-174-2a(g)]

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

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

Section VI: Title V Requirements

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

X. REOPENING FOR CAUSE [RCSA §22a-174-33(s)]

This Title V permit may be reopened by the commissioner, or the Administrator in accordance with RCSA §22a-174-33(s).

Y. CREDIBLE EVIDENCE

Notwithstanding any other provision of this Title V permit, for the purpose of determining compliance or establishing whether a Permittee has violated or is in violation of any permit condition, nothing in this Title V permit shall preclude the use, including the exclusive use, of any credible evidence or information.

**CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT**

**Connecticut Title V Operating Permit
Technical Support Document for a Permit Renewal**

Norwalk Hospital Association
24 Stevens Street
Norwalk, CT 06856

Permit No.: 137-0094-TV
SIMS No.: 201301997

/s/ Raquel Herrera
Raquel N. Herrera
Air Pollution Control Engineer

7/24/15
Date

APPROVALS:

/s/ Kiernan Wholean
Kiernan J. Wholean
Supervising Air Pollution Control Engineer

7/30/15
Date

/s/ Jaimeson Sinclair
Jaimeson A. Sinclair
Assistant Director

8/2/15
Date

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LIST OF ACRONYMS

<i>Abbreviation/Acronym</i>	<i>Description</i>
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
EPA	Environmental Protection Agency
EU	Emissions Unit
GEU	Grouped Emissions Unit
HAP	Hazardous Air Pollutant
HP	Horsepower
HR	Hour
KW	Kilowatt
MMBtu	Million British Thermal Units
MW	Megawatt
No.	Number
NO _x	Nitrogen Oxides
NOV	Notice of Violation
NSR	New Source Review
PM	Particulate Matter
RCSA	Regulations of Connecticut State Agencies
SCR	Selective Catalytic Reduction
SIP	State Implementation Plan
VOC	Volatile Organic Compounds

PREMISES DESCRIPTION

Norwalk Hospital Association owns and operates Norwalk Hospital, a general medical and surgical hospital. The hospital premises includes an energy generation and distribution center (“The Center”) to supplement its power requirements. All power and steam generated by the Center is supplied to the hospital.

The Center consists of generators driven by a gas turbine (NSR Permit No. 137-0052), a cogeneration engine (NSR Permit No. 137-0164), and two boilers (NSR Permit Nos. 137-0053 and 137-0054). The cogeneration engine (NSR Permit No. 137-0164) replaced Gas Turbine No. 1 (EU-001), which was removed from the premises in 2014 and its corresponding operating permit, NSR Permit No. 137-0051, revoked in the same year. The gas turbine, cogeneration engine and two boilers share a common stack. The hospital premises also includes four emergency generators, three of which operate under the permit-by-rule regulations, RCSA Section 22a-174-3b, and an ethylene oxide sterilization system consisting of three sterilizers. The insignificant emission units located at the premises include a cooling tower, and food preparation and storage systems, among others.

Gas Turbine

Gas Turbine No. 2 (A 1.25 MW Kawasaki MIA-13 Combustion Turbine) operates under NSR Permit No. 137-0052, originally issued on December 16, 1991, and last modified on June 5, 2015. Gas Turbine No. 2 (EU-002) is subject to the Standards of Performance for Stationary Gas Turbines (40 CFR Part 60 Subpart GG), since the unit has a heat input at peak load greater than 10 MMBtu/hr and it was constructed or modified after October 3, 1977. Water injection is used to control NO_x emissions and at this time, a continuous monitoring system is used to monitor fuel consumption and the ratio of water to fuel being fired in the turbine.

Boilers

Cleaver Brooks Boiler Nos. 1 and 2 operate under NSR Permit Nos. 137-0053 and 137-0054, respectively. The aforementioned permits were originally issued on December 16, 1991, and last modified on June 5, 2015. The units (EU-003 and EU-004 or GEU-001) are subject to the Standards of Performance for Small-Industrial-Commercial Institutional Steam Generating Units (40 CFR Part 60 Subpart Dc), since the boilers each have a design heat input capacity within the 10-100 MMBtu/hr applicability range and were constructed or modified after June 9, 1989. The boilers are also subject to the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR Part 63 Subpart JJJJJ), since the units are industrial boilers located at an area source of Hazardous Air Pollutants (HAPs).

Emergency Engines

Three Caterpillar Emergency Generators (EU-005, EU-010 and EU-013) operate under the permit-by-rule regulations, RCSA Section 22a-174-3b. At this time, the 300 kW Emergency Generator (EU-008) does not require of a permit to operate because the unit was installed on January 1, 1973 and has a maximum heat input less than 5 MMBtu/hr, the permitting threshold at the time. All four emergency generators (GEU-002) are subject to the National Emission Standards for Hazardous Air Pollutants for

Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63 Subpart ZZZZ), since the engines are stationary reciprocating internal combustion engines located at an area source of HAPs. Furthermore, pursuant to 40 CFR Part 63.6590(c), EU-013 will meet the requirements of 40 CFR Part 63 Subpart ZZZZ by complying with the applicable requirements of 40 CFR Part 60 Subpart IIII.

Ethylene Oxide Sterilization System

The Ethylene Oxide Sterilization System (EU-011) is comprised of three ethylene sterilizers. The system has potential emissions less than 15 tons per year and is subject to the National Emission Standards for Hospital Ethylene Oxide Sterilizers (40 CFR Part 63 Subpart WWWW), since it is an ethylene oxide sterilization facility at a hospital that is located at an area source of HAPs.

Cogeneration Engine

The 3 MW Caterpillar Natural Gas-Fired Cogeneration Engine (EU-012) operates under NSR Permit No. 137-0164 issued on August 6, 2014. The unit is equipped with a Selective Catalytic Reduction (SCR) system to control Nitrogen Oxides (NO_x) emissions and an oxidation catalyst to control Carbon Monoxide (CO) and Volatile Organic Compounds (VOC) emissions. As a stationary reciprocating internal combustion engine located at an area source of HAPs, the unit is subject to 40 CFR Part 63 Subpart ZZZZ. The Cogeneration Engine is also subject to the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40 CFR Part 60 Subpart JJJJ), since the engine was constructed after June 12, 2006 and manufactured after July 1, 2007. Norwalk Hospital Association will meet the requirements of 40 CFR Part 63 Subpart ZZZZ by complying with the applicable requirements of 40 CFR Part 60 Subpart JJJJ, pursuant to 40 CFR Part 63.6590(c).

Norwalk Hospital Association exceeds the major source threshold for the following pollutants: NO_x.

Norwalk Hospital Association is a Title V source located in a severe ozone non-attainment area defined in RCSA §22a-174-1(104).

COMPLIANCE ASSURANCE MONITORING (CAM) APPLICABILITY

Emissions Unit	Description	Pollutant-Specific Unit	Subject to Emission Limitation or Standard?	Emission Limitation or Standard Subject to	Is Emission Limitation or Standard Exempt Under 40 CFR 64.2(b)(1)?	Use a Control Device to Achieve Compliance?	Have Potential Pre-control Emissions of at Least 100% of Major Source Amount?	Subject to the CAM Rule?	
EU-002	1.25 MW Combustion Turbine No. 2	PM	Yes	RCSA §22a-174-18(e)	No	No	No	No ¹	
		NO _x		40 CFR Part 60 Subpart GG	Yes	Yes	Yes		
EU-012	3MW Cogeneration Engine	PM	Yes	RCSA §22a-174-18(e)	No	No	No	No ²	
		NO _x		40 CFR Part 60 Subpart JJJJ	Yes	Yes	Yes		Yes
		VOC							No
		CO							No

¹Combustion Turbine No. 2 (EU-002) is equipped with a continuous monitoring system used to monitor fuel consumption and the ratio of water to fuel being fired in the turbine; a continuous compliance determination method, as defined in 40 CFR Part 64.1. Consequently, the NO_x emission limitation is an exempt emission limitation under 40 CFR Part 64.2(b)(1)(vi). Furthermore, EU-002 does not have PM pre-control emissions greater than the applicable stationary major source threshold, therefore, the combustion turbine does not meet the applicability requirements for CAM listed under 40 CFR Part 64.2.

²40 CFR Part 60 Subpart JJJJ contains emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 of the CAA; thus, the NO_x, VOC and CO emission limitations are exempt emission limitations under 40 CFR Part 64.2(b)(1)(i). Additionally, the unit does not have Particulate Matter (PM) pre-control emissions greater than the applicable stationary major source threshold, therefore, the unit does not meet the applicability requirements for CAM listed under 40 CFR Part 64.2.

The Cleaver Brooks Boilers (GEU-001), the Emergency Generators (GEU-002), and the Ethylene Oxide Sterilization System (EU-011) do not utilize a control device, as defined in 40 CFR Part 64.1(2),

to achieve compliance with an emission limitation or standard; therefore, the units are also not subject to CAM pursuant to 40 CFR Part 64.2(a).

CHANGES TO PERMIT SINCE LAST ISSUE

The following changes were incorporated into the Title V permit:

Gas Turbines

Gas Turbine No.1 (EU-001) was removed from the premises in 2014 and its corresponding construction and operation permit, NSR No. 137-0051, was revoked on August 19, 2014. For this reason, all references to EU-001 have been removed from the Title V permit.

In August of 2014, Norwalk Hospital Association applied for a minor modification to NSR Permit No. 137-0052 for Gas Turbine No. 2 (EU-002). The company requested that the requirement for continuous emission monitoring systems for opacity, NO_x and Oxygen be removed from NSR Permit No. 137-0052 and instead, a requirement for a continuous monitoring system to monitor fuel consumption and the ratio of water to fuel being fired in the turbine be added, in accordance with 40 CFR Part 60 Subpart GG. The Department evaluated this request and modified the permit as requested. Additionally, NSR Permit No. 137-0052 was modified to include NO_x five-year recurrent emission testing to demonstrate compliance with RCSA Section 22a-174-22.

At this time, all the abovementioned changes have been included in the Title V permit, as well as the incorporation of 40 CFR Part 60 Subpart GG specific requirements as applicable to EU-002.

Boilers

With the removal of EU-001, GEU-002 has become GEU-001, which is comprised of EU-003 and EU-004 (Boiler Nos. 1 and 2, respectively).

In August of 2014, Norwalk Hospital Association applied for minor modifications to NSR Permit Nos. 137-0053 and 137-0054 for CB Boilers Nos. 1 and 2 (EU-003 and EU-004). In these minor modifications, the units' model numbers were corrected to "200-500 HP-150" and NO_x five-year recurrent emission testing to demonstrate compliance with RCSA Section 22a-174-22 requirements were added, among others. These conditions have been incorporated into the Title V permit, as well as 40 CFR Part 60 Subpart Dc and 40 CFR Part 63 Subpart JJJJJ requirements, as applicable to GEU-002.

Emergency Engines

On June 19, 2013, NSR Permit Nos. 137-0038, 137-0039 and 137-0066 for Cummins Emergency Generators Nos. 1 and 2 (EU-006 and EU-007) and a Caterpillar 3508 Emergency Generator (EU-005) were revoked. At the time, Norwalk Hospital Association opted to operate the aforementioned units under the permit-by-rule regulations, specifically RCSA Section 22a-174-3b, in lieu of their NSR permits.

In January of 2015, Norwalk Hospital Association submitted a revised Title V renewal application to reflect the company's most recent changes. In the 2015 application, the company stated that EU-006 and EU-007 had been removed from the premises and replaced with a new Caterpillar emergency generator (EU-013) also operated under RCSA Section 22a-174-3b. Consequently, at this time, the company operates four emergency generators, three of which are operated under RCSA Section 22a-174-3b.

During the facility's 2012 Inspection (report attached), Ms. Charmaine Molyneaux, from the Field Operations Section, determined that the 300 kW Emergency Generator (EU-008) is ineligible to operate under RCSA Section 22a-174-3b, since the unit did not require of a permit at the time of its installation (in 1973). Thus, all RCSA Section 22a-174-3b requirements, with respect to the operation of EU-008, have been removed from the Title V permit.

All applicable requirements corresponding to the operation of GEU-002, comprised of EU-005, EU-008, EU-010 and EU-013 have been revised, such that the Title V permit reflects the abovementioned changes. Lastly, all of the emergency engines are subject to 40 CFR Part 63 Subpart ZZZZ; thus, all appropriate federal requirements have been incorporated into the Title V permit. Nonetheless, pursuant to 40 CFR Part 63.6590(c), EU-013 will meet the requirements of 40 CFR Part 63 Subpart ZZZZ by complying with the applicable requirements of 40 CFR Part 60 Subpart IIII. As a compression ignition internal combustion engine constructed after July 11, 2005 and manufactured after April 1, 2006, EU-013 is subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60 Subpart IIII).

Ethylene Oxide Sterilization System

During the facility's 2012 Inspection, Ms. Charmaine Molyneaux also observed that the Ethylene Oxide Sterilization System is comprised of three sterilizers, instead of one, therefore, the Title V permit has been revised accordingly.

Cogeneration Engine

On August 6, 2014, NSR Permit No. 137-0164 for the construction and operation of a 3MW Caterpillar Natural Gas-Fired Cogeneration Engine (EU-012) was issued. All applicable state and federal regulations pertaining to the operation of the cogeneration engine have been added to the Title V permit, including the requirements outlined in 40 CFR Part 60 Subpart JJJJ and 40 CFR Part 63 Subpart ZZZZ.

The following changes were also made:

The Name of the Responsible Official was changed from Cristian Castillo to Anthony Caputo.

Norwalk Hospital Association is located in a severe ozone non-attainment area, as such, "Section I.B.: Premises Description" was corrected accordingly. "Section I.B." was also expanded to include changes the facility has gone through during the past five years (e.g. addition/removal of emission units), and the specific federal requirements associated with each emissions unit.

The grouped emissions unit designations were re-numbered, as needed, and similar emission units (i.e. the engines) were grouped to better accommodate compliance requirements.

Furthermore, the applicable regulatory references under “Section III.: Applicable Requirements and Compliance Demonstration” were revised in order to clarify where each requirement comes from (e.g. individual NSR permits, state/federal regulations, etc.).

Lastly, some additional changes were made to the Title V permit, so that this reflects the Department’s latest Title V permit template.

COMPLIANCE HISTORY

This facility was last inspected on August 11-13, 2014. The inspecting engineer’s “Premise Evaluation Report” was reviewed and is included as an attachment to this report.

The Compliance Report Evaluation Title V Compliance Certification document signed and dated on July 24, 2015 and covering the reporting period of January 1, 2014 to December 31, 2014, indicates that the facility operated in intermittent compliance with permit conditions III.A.2.a. and III.A.5.a. of its Title V permit. The Permittee reported one opacity deviation. Mr. Sugato Mitra, on behalf of Norwalk Hospital Association, stated in a telephone conversation held in April of 2015, that the previously mentioned deviation was reported in error and that it was not a deviation because it occurred during maintenance activities. For this reason, the Department recommended no enforcement action for the opacity deviation.

Norwalk Hospital Association also reported five monitoring system failures that occurred during the first half of 2014. Opacity and NO_x data availability was 86.79% and 84.89%, respectively, for the 2014 second quarter, for EU-001 through EU-004. On November 6, 2014, Notice of Violation No. 17448 was issued for excessive opacity COMS and NO_x CEMS downtime during the second quarter. At this time, no further enforcement action has been recommended for the monitoring system failures. The Compliance Report Evaluation is attached to this report.

In addition to the above, the compliance record was reviewed in accordance with the Environmental Compliance History Policy. The applicant’s submitted compliance information form was reviewed along with agency records for information to evaluate the applicant’s compliance and the relevance of such history to the activity for which authorization is being sought. Additionally, a review of air program compliance was requested from the Enforcement Section and that response forms a part of this record. The review indicated that there are currently four open Notices of Violation against Norwalk Hospital Association. However, as stated by Air Enforcement, these NOV’s should either not impact the Title V permit renewal or will be addressed by issuance of the Title V permit renewal.

STREAMLINING PERMIT FOR OUTDATED SIP REQUIREMENTS

Connecticut is using this Title V permit to streamline state adopted rules with EPA-approved Connecticut regulations found at 40 CFR §52.385.

EPA provides general guidance in White Paper 2 (Development of Applications and Permits for outdated SIP requirements) for simplifying permits where a source is subject to both a state adopted rule that is pending SIP approval and the approved SIP version of that rule. Connecticut state rules are as stringent as or more stringent than the current SIP for subject sources in this Title V permit, except as noted in Table 1.

Pending SIP requirements are state-enforceable only and become federally enforceable upon EPA approval of the SIP. State rules not submitted as a part of the Connecticut SIP remain state-enforceable only.

Consistent with Section 504(a) of the Clean Air Act, the Title V permits need only contain emission limits and other terms and conditions as needed to assure compliance with the applicable requirement.

Table 1: Comparison of SIP with Current State Regulations

Topic of Regulation	SIP	Current Regulation	Current Regulation at Least as Stringent as SIP
Emission Testing	19-508-5	22a-174-5	Yes, test methods have been improved since SIP was adopted.
Air Pollution Emergency	19-508-6	22a-174-6	Yes, action levels are equivalent.
Reporting of Malfunctioning Control Equipment	19-508-7	22a-174-7	Yes, notification provisions are more stringent.
Prohibition of Air Pollution	19-508-9	22a-174-9	Yes, state rule expands prohibited activities.
Public Availability of Information	19-508-10	22a-174-10	Yes, definition of confidential information and the ability to charge a fee are the same in both rules.
Prohibition Against Concealment or Circumvention	19-508-11	22a-174-11	Yes, requirements are equivalent.
Violations and Enforcement	19-508-12	22a-174-12	Yes, state rule adds requirement of progress reports.
Variances	19-508-13	22a-174-13	Yes, state rule is an exact replica of SIP.
No Defense to Nuisance Claim	19-508-14	22a-174-14	Yes, state rule is an exact replica of SIP.
Severability	19-508-15	22a-174-15	Yes, state rule is an exact replica of SIP.
Responsibility to Comply	19-508-16	22a-174-16	Yes, state rule is an exact replica of SIP.

Topic of Regulation	SIP	Current Regulation	Current Regulation at Least as Stringent as SIP
Control of Particulate Emissions	19-508-18	22a-174-18	No, current rule (Section j) allows alternative opacity standards for emission units equipped with continuous opacity monitors.
Control of Sulfur Compounds	19-508-19	22a-174-19	Yes, state rule is as at least as stringent as SIP.
Control of Sulfur from Power plants		22a-174-19a	There is no equivalent provision in current SIP.
Control of Volatile Organic Compounds	19-508-20	22a-174-20	Yes, state rule is as at least as stringent as SIP.
Control of Carbon Monoxide	19-508-21	22a-174-21	Yes, state rule is an exact replica of SIP.
Primary and Secondary Standards	19-508-24	22a-174-24	SIP is outdated. Air quality standards do not have to be a permit condition.
Effective Date	19-508-25	22a-174-25	Yes, state rule is an exact replica of SIP.

**CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT
Engineering Division**

TO: Jaimeson A. Sinclair, Assistant Director, Engineering Date Rec'd: April 23, 2013
SIMS No.: 201301997

FROM: Kiernan J. Wholean, Supervising Air Pollution Control Engineer
Raquel N. Herrera, Air Pollution Control Engineer

SUBJECT: Final Signature for Title V Permit No. 137-0094 Renewal for Norwalk Hospital
Association

DISCUSSION:

On September 2, 2015, a tentative determination was made to approve a Title V permit renewal (Permit No. 137-0094-TV) for Norwalk Hospital Association. The notice of tentative determination was published in The Hour on September 3, 2015 and the Title V public notice fee was paid on October 6, 2015. The public comment period ended on October 3, 2015 and the 45-day EPA comment period ended on October 18, 2015. No comments were received from the applicant, public, affected states, or EPA.

Based on the above information, it is recommended that the Title V permit renewal (Permit No. 137-0094-TV) be issued to Norwalk Hospital Association.

/s/ Raquel Herrera
Raquel N. Herrera
APCE

10/19/15
Date

REVIEW:

/s/ Kiernan Wholean 10/20/15

Kiernan J. Wholean
Supervising APCE