



DEPARTMENT ORDER

Department of Veterans Affairs
Medical and Regional Office Center
Kennebec County
Augusta, Maine
A-372-71-R-R/A (SM)

Departmental
Findings of Fact and Order
Air Emission License
Renewal with Amendment

FINDINGS OF FACT

After review of the air emission license renewal application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

The Department of Veterans Affairs Medical & Regional Office Center (DVA) has applied to renew their Air Emission License for the operation of emission sources associated with their medical and regional office center.

DVA has also requested an amendment to their license to replace their existing emergency generator, designated as Generator #5, with a new and larger generator which will also be designated as Generator #5.

The equipment addressed in this license is located at #1 VA Center in Augusta, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

<u>Equipment</u>	<u>Max. Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manuf.</u>	<u>Date of Install.</u>	<u>Stack #</u>
Boiler #1	50.2	359 gal/hr	Distillate, 0.5%	1997	1997	239
Boiler #2	75.1	536 gal/hr	Distillate, 0.5%	1997	1997	239
Boiler #3	25.6	183 gal/hr	Distillate, 0.5%	1997	1997	239
Boiler #4	38.0	* 3.6 tons/hr	Biomass, negl.	2011	2011	239

* Based on firing biomass with an estimated average moisture content of 37% by weight

Emergency Generators and Fire Pumps

Equipment	Serial Number	Max. Input Capacity (MMBtu/hr)	Fuel Type, % sulfur	Firing Rate (gal/hr)	Date of Manuf.	Date of Install.
Generator #1	5YF01647	1.60	Distillate Fuel, 0.0015%	11.7	1996	1996
Generator #4	A06607	6.20	Distillate Fuel, 0.0015%	44.9	1991	1991
Generator #5	1409605	2.62	Distillate Fuel, 0.0015%	18.7	2014	2017
Generator #6*	C900304215	0.43	Distillate Fuel, 0.0015%	3.1	1990	1990
Generator #7	4ZR1263	1.20	Distillate Fuel, 0.0015%	8.8	1997	1997
Generator #8	88664	4.67	Distillate Fuel, 0.0015%	36.3	2004	2004
Generator #9	G5AD4041	2.44	Distillate Fuel, 0.0015%	17.8	2010	2010
Fire Pump (A)	--	0.85	Distillate Fuel, 0.0015%	6.2	2002	2002

* Generator #6 is considered an insignificant unit based on its size, as categorized by 06-096 C.M.R. ch. 115, Appendix B (B)(3). Its emissions will not be included in the air license totals and it has been shown only for completeness purposes.

C. Definitions

Distillate Fuel - For the purposes of this license, *distillate fuel* means the following:

- Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
- Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- Kerosene, as defined in ASTM D3699;
- Biodiesel, as defined in ASTM D6751; or
- Biodiesel blends, as defined in ASTM D7467.

Medically Necessary Circumstances - For purposes of this air license, *medically necessary circumstances* are circumstances that necessitate the operation of an ethylene oxide sterilizer without it having a full load, in order to protect human health. This determination shall be made by a hospital central services staff, a hospital administrator, or a physician, with their conclusion based on generally accepted medical practices.

D. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the issued date of this license.

The application for renewal for DVA includes the replacement of their existing Generator #5 with a new, slightly larger emergency generator. Therefore, the license is considered to be a renewal of currently licensed emission units, with a minor modification. The application has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115.

The replacement of the existing Generator #5 with the larger proposed Generator #5 will have minimal impact on the future actual emissions from the facility, considering the operating hours limit for the new emergency generator.

The substantial changes to the emission limits in this air license are the result of reducing the non-emergency operating hours for the applicable emergency engines from the previously licensed restriction of 500 hours per year to 100 hours per year. Additionally, the emission factors that were used for calculating the emissions from the larger distillate-fired engines in the license were updated to current established values.

With the annual fuel use and heat input limits on the boilers and the operating hours restriction on the emergency engines, the facility is licensed below the major source thresholds for criteria pollutants and is considered a synthetic minor.

With the annual fuel use and heat input limits on the boilers and the operating hours restriction on the emergency engines, the facility is licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of HAP.

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the "Significant Emission" levels as defined in the Department's *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100. The emission increases from the replacement of Generator #5 are quantified in the following table:

<u>Pollutant</u>	<u>Current License (TPY)</u>	<u>Change Due to Generator #5 Replacement (TPY)</u>	<u>Other Changes * (TPY)</u>	<u>Future License (TPY)</u>	<u>Significant Emission Levels (TPY)</u>
PM	15.3	0.01	-0.4	14.9	100
PM ₁₀	15.3	0.01	-0.4	14.9	100
SO ₂	67.6	0.01	0.2	67.8	100
NO _x	76.3	0.29	-16.0	60.6	100
CO	47.7	0.06	-0.1	44.3	100
VOC	4.4	0.02	-1.2	3.2	50
CO _{2e}	-	-	-	< 100,000	100,000

* *Other Changes includes reducing the Operating Hour Restriction for applicable emergency engines from 500 hours per year to 100 hours per year, and corrections to the emission factors that were used to calculate SO₂, NO_x, CO and VOC for applicable emergency engines.*

This modification is determined to be a minor modification and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Boilers #1, #2, #3 and #4

The DVA operates Boilers #1, #2 and #3 to supply hot water and heat for the campus. Boilers #1, #2 and #3 were each installed in 1997 and have maximum design heat input capacities of 50.2, 75.1 and 25.6 MMBtu/hour, respectively. These three boilers each fire distillate fuel with a maximum sulfur content of 0.5% by weight, and they all exhaust through a 125 foot tall common stack (Stack 239).

Additionally, DVA installed Boiler #4 at their facility in 2011 to provide motive steam that is used to drive a 661 kilowatt turbine-generator set, as well as to provide process steam used in a steam absorption water chiller and to provide supplemental steam capacity to the campus steam header. Boiler #4 fires biomass fuel at a maximum rate of 3.6 tons per hour, and assuming an average fuel moisture content of 37%, has a maximum heat input capacity of 38.0 MMBtu/hr. Particulate emissions from Boiler #4 are controlled using a multiclone in combination with an electrostatic precipitator (ESP). Boiler #4 also exhausts through common Stack 239.

Only two of the three distillate fuel-fired boilers may operate at any one time, delivering a maximum steam production rate of 80,000 lb per hour. This condition was established by the facility based on the existing maximum connected loading at the time air emission license A-372-71-G-M/R, dated June 15, 1998, was issued. Based on the boilers' design specifications, a combined boiler fuel firing rate of 622 gallons per hour of distillate fuel would be required to achieve this production rate. This firing rate equates to a maximum heat input rate of 87.1 MMBtu per hour into the boilers. Additionally, an annual fuel limit of 1,800,000 gallons of distillate fuel for the three distillate fuel-fired boilers was established in air emission license A-372-71-G-M/R, as was an annual heat input limit of 311,570 MMBtu per year for Boiler #4. These values have been incorporated into this license as BPT for the respective boilers.

1. BPT Findings

The BPT emission limits for Boilers #1, #2 and #3 were based on the following:

Distillate Fuel

PM/PM ₁₀	0.08 lb/MMBtu, based on air emission license A-372-71-O-R/A dated April 25, 2011, BPT
SO ₂	based on firing distillate fuel with a maximum sulfur content of 0.5% by weight
NO _x	20 lb/1000 gal based on AP-42 Table 1.3-1 dated 5/10
CO	5 lb/1000 gal based on AP-42 Table 1.3-1 dated 5/10
VOC	0.34 lb/1000 gal based on AP-42 Table 1.3-3 dated 5/10
Visible Emissions	06-096 C.M.R. ch. 115, BPT

The BPT emission limits for Boilers #1, #2 and #3 are the following:

Unit	Pollutant	lb/MMBtu
Boilers #1, #2 and #3	PM	0.08

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	4.02	4.02	25.46	7.18	1.80	0.12
Boiler #2	6.01	6.01	38.09	10.72	2.68	0.18
Boiler #3	2.05	2.05	12.98	3.66	0.92	0.06

The BPT emission limits for Boiler #4 were based on the following:

Biomass Fuel

PM/PM ₁₀	0.03 lb/MMBtu, from Air Emission License A-372-71-O-R/A (April 25, 2011), BACT
SO ₂	0.025 lb/MMBtu, from Air Emission License A-372-71-O-R/A (dated April 25, 2011)
NO _x	0.25 lb/MMBtu, from Air Emission License A-372-71-O-R/A (April 25, 2011)
CO	0.25 lb/MMBtu, from Air Emission License A-372-71-O-R/A (April 25, 2011)
VOC	0.017 lb/MMBtu, from Air Emission License A-372-71-O-R/A (April 25, 2011)
Visible Emissions	06-096 C.M.R. ch. 115, BPT

The emission limits for Boiler #4 are the following, established as BACT in A-372-71-O-R/A (April 25, 2011):

Unit	Pollutant	lb/MMBtu
Boiler #4	PM	0.03

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #4 (38 MMBtu/hr) Biomass Fuel	1.14	1.14	0.95	9.50	9.50	0.65

2. Visible Emissions

Visible emissions from Stack 239, which exhausts emissions from all four boilers, shall be monitored on a continuous basis with a Continuous Opacity Monitoring System (COMS) meeting the requirements of 40 C.F.R. Part 60, Appendix B, *Performance Specification 1*.

Visible emissions exiting the common stack shall not exceed 20% opacity on a six-minute block average basis, except for one six-minute period per hour during which the opacity shall not exceed 27%.

3. Fuel Limits

a. DVA shall be limited to firing distillate fuel in Boilers #1, #2 and #3, with a maximum combined total of 1,800,000 gallons per year, based on a 12-month rolling total.

b. DVA shall be limited to firing biomass fuel in Boiler #4, with a maximum annual heat input limit of 311,570 MMBtu per year (equivalent to 29,600 tons of fuel at 37% moisture), calculated on a 12-month rolling total basis.

4. Fuel Sulfur Content Requirements for Boilers #1, #2 and #3

Boilers #1, #2 and #3 are licensed to fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Per 38 M.R.S. § 603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use in Boilers #1, #2 and #3 shall not exceed 0.0015% by weight (15 ppm).

5. Periodic Monitoring

a. Periodic monitoring for distillate fuel-fired Boilers #1, #2 and #3 shall include recordkeeping to document fuel use both on a monthly and 12-month rolling total basis. Documentation required to demonstrate compliance shall include the quantity of fuel used and the percent sulfur content by weight of the fuel fired within the recorded dates.

- b. Periodic monitoring for the biomass-fired Boiler #4 shall include recordkeeping to document fuel use both on a monthly and 12-month rolling total basis. Documentation required to demonstrate compliance for Boiler #4 shall consist of the quantity and the moisture content of the biomass fuel fired within the recorded dates.

6. New Source Performance Standards (NSPS): 40 C.F.R. Part 60, Subpart Dc – *Standards of Performance for Small Industrial – Commercial – Institutional Steam Generating Units.*

Due to their sizes and years of manufacture, Boilers #1, #2, #3 and #4 are each subject to 40 C.F.R. Part 60, Subpart Dc for units that are greater than 10 MMBtu/hr and were manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

DVA shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to Boilers #1, #2, #3 and #4 including, but not limited to, the following:

a. Notifications

DVA shall submit notification to EPA and to the Department of the date of construction, anticipated start-up, and actual start-up date for each of the boilers. The notification shall include the design heat capacity of the boiler and the type of fuel to be combusted. [40 C.F.R. § 60.48c(a)]

DVA provided notification of construction of Boiler #4 to EPA on March 19, 2012.

b. Standards

(1) Sulfur Dioxide (SO₂)

The distillate fuel that is fired in Boilers #1, #2 and #3 shall not exceed 0.5% sulfur by weight. [40 C.F.R. § 60.42c(d)] This fuel sulfur content limit shall be streamlined to the lower limit required by State statute as of July 1, 2018.

(2) Particulate Matter (PM)

Due to their sizes, ages and the fuel that they fire, Boilers #1, #2 and #3 are exempt from the PM limits listed in Subpart Dc. Their PM limits shall be 0.08 lb/MMBtu of fuel, previously identified as BPT in air emission license A-372-71-O-R/A dated April 25, 2011.

Subpart Dc establishes a PM emission limit for Boiler #4 of 0.10 lb/MMBtu based on its age, size and fuel utilized (biomass). [40 C.F.R. § 60.43c(e)(3)] However, Boiler #4 is also subject to the PM emission limits found in Table 1 (line 3) of 40 C.F.R. Part 63, Subpart JJJJJJ - *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*. The limit in Subpart JJJJJJ is 0.03 lb/MMBtu, and as it is more stringent than the limits found in Subpart Dc or in 06-096 C.M.R. ch. 103 - *Fuel Burning Equipment Particulate Emission Standard*, it shall be considered BPT for Boiler #4.

c. Initial Compliance Requirements

DVA shall perform the following within 30 days after achieving the maximum production rate at which the boiler will be operated, but not later than 180 days after the initial start-up of the boiler:

- (1) DVA shall submit to EPA and the Department copies of the fuel supplier certification of the sulfur content of the fuel fired in Boilers #1, #2 and #3. The fuel supplier certification must contain the name of the oil supplier, a statement from the oil supplier that the oil complies with ASTM specifications for distillate oil, and the maximum sulfur content of the oil. [40 C.F.R. § 60.44c(h)]
- (2) DVA shall perform an initial performance test for opacity and PM on the common stack. The initial performance test for opacity shall be done in accordance with 40 C.F.R. Part 60, Appendix A, Method 9. Results of the performance testing shall be made available to the Department or the EPA upon request. Additional performance testing for opacity may be required of DVA by the Department, the EPA Administrator or their authorized representative upon their request. [40 C.F.R. § 60.45c(a)]

d. Monitoring Requirements

DVA shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) on common Stack 239 for Boilers #1, #2, #3 and #4, and record the output of the systems. [40 C.F.R. § 60.47c(a)]

e. Reporting and Recordkeeping

- (1) DVA shall submit the performance test data from the initial and any subsequent performance tests, and if applicable, the performance evaluation of the COMS using Performance Specification 1 – *Specifications and Test Procedures for Continuous Opacity Monitoring Systems in Stationary Sources*, in Appendix B of 40 C.F.R. Part 60. [40 C.F.R. § 60.48c(b)]
- (2) DVA shall submit excess opacity emission reports for any excess emissions from their facility that occur during the reporting period, and shall maintain records according to the requirements of paragraphs (c)(1) through (3) of 40 C.F.R. § 60.48c, as applicable to the visible monitoring method used. [40 C.F.R. § 60.48c(c)]
- (3) DVA shall maintain monthly records of the amounts of each fuel combusted in each of the four boilers during each calendar month. [40 C.F.R. § 60.48c(g)(2)]
- (4) DVA shall submit semi-annual reports to EPA and to the Department. [40 C.F.R. § 60.48c(d)] These reports shall include the following:
 - (i) Calendar dates covered in the reporting period; [40 C.F.R. § 60.48c(e)(1)]
 - (ii) Records of fuel supplier certifications; [40 C.F.R. § 60.48c(e)(11)] and
 - (iii) Any instances of excess emissions (including opacity) from Boilers #1, #2, #3 and #4. [40 C.F.R. § 60.48c(c)]
- (5) The semi-annual reports are due within 30 days of the end of each six-month period. [40 C.F.R. § 60.48c(j)]
- (6) The following address for EPA shall be used for any reports or notifications required to be copied to them:

U.S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100 (OES04-2)
Boston, MA 02109-3912
Attn: Air Compliance Clerk

7. National Emission Standards for Hazardous Air Pollutants (NESHAP):
40 C.F.R. Part 63, Subpart JJJJJ

Boilers #1, #2, #3 and #4 are subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJ. Boilers #1, #2 and #3 are considered existing oil boilers as they were installed prior to 2010, while Boiler #4 is considered a new biomass boiler as it was installed after June 4, 2010. [40 C.F.R. §§63.11193 and 63.11195]

A summary of the currently applicable federal 40 C.F.R. Part 63, Subpart JJJJJ requirements is listed below. Notification forms and additional rule information can be found on the following website: <https://www.epa.gov/stationary-sources-air-pollution/compliance-industrial-commercial-and-institutional-area-source>.

a. Compliance Dates, Notifications, and Work Practice Requirements

(1) Initial Notification of Compliance

- (i) For Boilers #1, #2 and #3, an Initial Notification submittal to EPA was due no later than January 20, 2014. DVA submitted their Initial Notification to EPA on October 25, 2011.
- (ii) For Boiler #4, an Initial Notification submittal to EPA was due within 120 days after it became subject to the standard. DVA submitted their Initial Notification on March 22, 2012.

[40 C.F.R. § 63.11225(a)(2)]

(2) Work Practice Requirements

Boilers #1, #2 #3 and #4 are subject to the work practice requirements of 40 C.F.R. Part 63, Subpart JJJJJ, applicable by boiler category as specified in the table below:

<u>Boiler Category</u>	<u>Requirements</u>
<i>Existing oil-fired boiler with a heat input capacity of 10 MMBtu/hr or greater</i> <u>Applies to Boilers #1, #2 and #3</u>	DVA shall minimize the duration of Boiler #1, #2 and #3's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures. [40 C.F.R. Part 63, Subpart JJJJJ, Table 2, line 1]

<p><i>Existing oil-fired boiler with a heat input capacity of greater than 5 MMBtu/hr that does not meet the definition of seasonal boiler or limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio</i></p> <p><u>Applies to Boilers #1, #2 and #3</u></p>	<p>DVA shall conduct an initial tune-up for each of the affected boilers, as specified in §63.11214, and conduct a tune-up of each of the affected boilers biennially as specified in §63.11223.</p> <p>[40 C.F.R. Part 63, Subpart JJJJJ, Table 2, line 4]</p>
<p><i>Existing oil-fired boiler (units with heat input capacity of 10 MMBtu/hr and greater), not including limited-use boilers.</i></p> <p><u>Applies to Boilers #1, #2 and #3</u></p>	<p>Boilers #1, #2 and #3 must each have a one-time energy assessment performed by a qualified energy assessor.</p> <p>[40 C.F.R. Part 63, Subpart JJJJJ, Table 2, line 4]</p>
<p><i>New biomass-fired boiler with a heat input capacity of 30 MMBtu/hr or greater</i></p> <p><u>Applies to Boiler #4</u></p>	<p>PM emissions from Boiler #4 shall be limited to less than or equal to 0.03 lb/MMBtu, except during periods of startup and shutdown.</p> <p>[40 C.F.R. Part 63, Subpart JJJJJ, Table 1, line 3]</p> <p>DVA shall minimize the duration of Boiler #4's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures.</p> <p>[40 C.F.R. Part 63, Subpart JJJJJ, Table 2, line 1]</p> <p>DVA shall conduct a tune-up of Boiler #4 biennially as specified in 40 C.F.R. § 63.11223.</p> <p>[40 C.F.R. Part 63, Subpart JJJJJ, Table 2, line 7]</p> <p>DVA shall maintain the 30-day rolling average total secondary power of the electrostatic precipitator at or above the minimum total secondary electric power as defined in 40 C.F.R. § 63.11237.</p> <p>[40 C.F.R. Part 63, Subpart JJJJJ, Table 3, line 2]</p> <p>DVA shall operate Boiler #4 such that it does not exceed 110 percent of the average operating load recorded during the most recent performance stack test.</p> <p>[40 C.F.R. Part 63, Subpart JJJJJ, Table 3, line 7]</p>

<p><i>New biomass-fired boiler with a heat input capacity of 30 MMBtu/hr or greater</i></p> <p><u>Applies to Boiler #4</u> <i>(continued)</i></p>	<p>DVA shall complete PM emission testing on Boiler #4 in accordance with 40 C.F.R. § 63.11212. [40 C.F.R. Part 63, Subpart JJJJJ, Table 4, line 1]</p>
	<p>DVA shall establish a site-specific minimum total secondary electric power operating limit for the electrostatic precipitator for Boiler #4 by:</p> <ul style="list-style-type: none"> · Collecting secondary electric power data every 15 minutes during the entire period of the performance stack tests; and · Determining the average total secondary electric power for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run. <p>[40 C.F.R. Part 63, Subpart JJJJJ, Table 6, line 1(b)]</p>
	<p>DVA shall establish a unit-specific limit for maximum operating load for Boiler #4, according to §63.11212(c) by:</p> <ul style="list-style-type: none"> · Collecting operating load data (fuel feed rate or steam generation data) every 15 minutes during the entire period of the performance test; and · Determining the average operating load by computing the hourly averages using all of the 15-minute readings taken during each performance test; and · Determining the average of the three test run averages during the performance test, and · Multiplying the average of the three test run averages by 1.10 (110 percent) to obtain the operating limit. <p>[40 C.F.R. Part 63, Subpart JJJJJ, Table 6, line 4]</p>
	<p>DVA shall:</p> <ul style="list-style-type: none"> · Collect Continuous Opacity Monitoring System (COMS) data for opacity according to §§ 63.11224(e) and 63.11221; and · Reduce the opacity monitoring data to 6-minute averages; and · Maintain opacity to less than or equal to 10 percent (daily block average). <p>[40 C.F.R. Part 63, Subpart JJJJJ, Table 7, line 1]</p>

<p><i>New biomass-fired boiler with a heat input capacity of 30 MMBtu/hr or greater</i></p> <p><u>Applies to Boiler #4</u> (continued)</p>	<p>DVA shall:</p> <ul style="list-style-type: none"> · Collect the total secondary electric power monitoring system data for the electrostatic precipitator according to §§ 63.11224 and 63.11221; and · Reduce the total secondary electric power monitoring system data to 30-day rolling averages; and · Maintain the 30-day rolling average total secondary electric power at or above the minimum total secondary electric power according to §63.11211. <p>[40 C.F.R. Part 63, Subpart JJJJJ, Table 7, line 5]</p>
	<p>DVA shall:</p> <ul style="list-style-type: none"> · Collect operating load data (fuel feed rate or steam generation data) every 15 minutes; and · Reduce the data to 30-day rolling averages; and · Maintain the 30-day rolling average at or below the operating limit established during the performance test according to §63.11212(c) and Table 6 to Subpart JJJJJ. <p>[40 C.F.R. Part 63, Subpart JJJJJ, Table 7, line 9]</p>

(3) Boiler Tune-Up Program for Boilers #1, #2, #3 and #4

- (i) A boiler tune-up program shall be implemented for each boiler. [40 C.F.R. § 63.11223]
- (ii) Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler.
- (iii) The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
 1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. [40 C.F.R. § 63.11223(b)(1)]
 2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F.R. § 63.11223(b)(2)]

3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. [40 C.F.R. § 63.11223(b)(3)]
 4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
 5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 C.F.R. § 63.11223(b)(5)]
 6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 C.F.R. § 63.11223(b)(7)]
- (iv) Tune-Up Report: A tune-up report shall be maintained onsite for each boiler, and if requested, submitted to EPA. The report shall contain the following information:
1. The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
 2. A description of any corrective actions taken as part of the tune-up of the boiler; and
 3. The types and amounts of fuels used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. [40 C.F.R. § 63.11223(b)(6)]
- (v) After conducting the initial boiler tune-ups, a Notification of Compliance Status for the affected boilers shall be submitted to EPA no later than July 19, 2014. [40 C.F.R. § 63.11225(a)(4) and 40 C.F.R. § 63.11214(b)] DVA submitted their Notification of Compliance Status reports for Boilers #1, #2 and #3 to EPA on June 26, 2014, and for Boiler #4 on April 18, 2014.

(4) Compliance Report

For Boilers #1, #2, #3 and #4, a compliance certification report shall be prepared by March 1st biennially for each boiler, which covers the previous two calendar years. The report shall be maintained by the source and submitted to the Department and/or to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following:

- (i) Company name and address;
- (ii) A statement of whether the source has complied with all the relevant requirements of this Subpart;
- (iii) A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;
- (iv) The following certifications, as applicable:
 - 1. "This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
 - 2. "No secondary materials that are solid waste were combusted in any affected unit."
 - 3. "This facility complies with the requirement in §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

[40 C.F.R. § 63.11225(b)]

In addition to the requirements listed above, the biennial compliance certification report for Boiler #4 shall include the following additional information because Boiler #4 is subject to a PM emission limit stipulated by 40 C.F.R. Part 63, Subpart JJJJJ.

- (v) If the sources experience any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken; and
- (vi) The total fuel use by each affected boiler subject to an emission limit for each calendar month within the reporting period.

[40 C.F.R. § 63.11225(b)]

(5) Performance Tests

DVA conducted a performance test for PM emissions from Boiler #4 on November 8, 2013, in accordance with 40 C.F.R. Part 63, Subpart JJJJJ, Table 4. The result of this performance test for PM was 0.014 lb/MMBtu. Because the test results were less than half of the applicable PM limit of 0.03 lb/MMBtu as established in Subpart JJJJJ, DVA is not required to conduct further performance testing for PM emissions until September 14, 2021. However, DVA must still comply with all existing applicable operating limits and monitoring requirements, and must comply with the following provisions:

- (i) A performance test for PM must be conducted by September 14, 2021. [40 C.F.R. §63.11220(b)(1)]
- (ii) If the next subsequent performance test results show that DVA's PM emissions are equal to or less than half of the PM emission limit of 0.03 lb/MMBtu, DVA may choose to conduct performance tests for PM every fifth year. Each such performance test must be conducted no more than 61 months after the previous performance test. [40 C.F.R. §63.11220(b)(2)]
- (iii) If the next subsequent performance test results show that DVA's PM emissions are greater than half of the PM emission limit of 0.03 lb/MMBtu, DVA shall conduct subsequent performance tests on a triennial basis. [40 C.F.R. §63.11220(b)(4)]
- (iv) Triennial performance tests must be completed no more than 37 months after the previous performance test. [40 C.F.R. §63.11220(a)]

(6) Energy Assessment

Boilers #1, #2 and #3 are subject to the energy assessment requirement, to be performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014. [40 C.F.R. § 63.11196(a)(3)] DVA has conducted their one-time energy assessment.

A Notification of Compliance Status was required to be submitted to EPA no later than July 19, 2014. [40 C.F.R. § 63.11225(a)(4) and 40 C.F.R. § 63.11214(c)] Per EPA, new boilers that only have the requirement to conduct regular tune-ups do not need to submit a NOCS. DVA submitted their Notification of Compliance Status to EPA on June 26, 2014.

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJJ including the following [40 C.F.R. § 63.11225(c)]:

- (1) Copies of notifications and reports with supporting compliance documentation;
- (2) Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
- (3) Records of the occurrence and duration of each malfunction of each applicable boiler; and
- (4) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review. EPA requires submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system. [40 C.F.R. § 63.11225(a)(4)(vi)]

C. Generators #1, #4, #7 and #8 and Fire Pump (A)

Emergency generators are generator sets with each gen set consisting of an engine and an electrical generator. DVA operates four emergency generators and one emergency fire pump that are driven by engines that were manufactured prior to 2006. The emergency engines listed below all fire distillate fuel having a maximum sulfur content of 0.0015% by weight.

Unit	Serial Number	Maximum Heat Input (MMBtu/hr)	Maximum Firing Rate (gal/hr)	Date of Manufacture	Date of Installation
Generator #1	5YF01647	1.60	11.7	1996	1996
Generator #4	A06607	6.20	44.9	1991	1991
Generator #7	4ZR1263	1.20	8.78	1997	1997
Generator #8	88664	4.67	36.3	2004	2004
Fire Pump (A)	-	0.85	6.21	2002	2002

The engines that drive Generators #1, #7 and Fire Pump (A) are each rated with outputs of less than 600 HP, and as such they are classified as Diesel Industrial Engines by the EPA's AP-42 - *Fifth Edition Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*. Accordingly, the AP-42 emission factors for these emergency engines were taken from AP-42 Chapter 3, Section 3.3 – *Gasoline and Diesel Industrial Engines*.

1. BPT Findings

The BPT emission limits for Generators #1, #7 and Fire Pump (A) are based on the following:

PM/PM ₁₀	- 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103
SO ₂	- combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
NO _x	- 4.41 lb/MMBtu, taken from AP-42, Table 3.3-1 dated 10/96
CO	- 0.95 lb/MMBtu, taken from AP-42, Table 3.3-1 dated 10/96
VOC	- 0.36 lb/MMBtu, taken from AP-42, Table 3.3-1 dated 10/96
Visible Emissions	- 06-096 C.M.R. ch. 115, BPT

The engines that drive Generators #4 and #8 are each rated with outputs over 600 HP and are classified as large stationary diesel engines (over 600 HP output) per AP-42 criteria. The applicable AP-42 emission factors for these emergency engines were taken from Chapter 3, Section 3.4 - *Large Stationary Diesel and All Stationary Dual-fuel Engines*.

The BPT emission limits for Generators #4 and #8 are based on the following:

PM/PM ₁₀	- 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103
SO ₂	- combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
NO _x	- 3.2 lb/MMBtu, taken from AP-42, Table 3.4-1 dated 10/96
CO	- 0.85 lb/MMBtu, taken from AP-42, Table 3.4-1 dated 10/96
VOC	- 0.09 lb/MMBtu, taken from AP-42, Table 3.4-1 dated 10/96
Visible Emissions	- 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for the emergency engines are the following:

Unit	Pollutant	lb/MMBtu
Generator #4 and #8	PM	0.12

The BPT emission limits for the emergency engines are the following:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1 1.60 MMBtu/hr	0.19	0.19	0.01	7.06	1.52	0.58
Generator #4 6.20 MMBtu/hr	0.74	0.74	0.01	19.84	5.27	0.56
Generator #7 1.20 MMBtu/hr	0.14	0.14	0.01	5.29	1.14	0.43
Generator #8 4.67 MMBtu/hr	0.56	0.56	0.01	14.94	3.97	0.42
Fire Pump (A) 0.85 MMBtu/hr	0.10	0.10	0.01	3.75	0.81	0.31

Visible emissions from each of the distillate fuel-fired emergency generators shall not exceed 20% opacity on a six-minute block average basis.

Each of these emergency generators and Fire Pump (A) shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. There is no limit on emergency operation. Each emergency generator and Fire Pump (A) shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, DVA shall keep records of the total hours of operation and the hours of emergency operation for each unit.

Emergency generators and fire pumps are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Emergency generators are not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity.

2. New Source Performance Standards (NSPS)

Due to the dates of manufacture of the compression ignition emergency engines listed above, the engines are not subject to the New Source Performance Standards (NSPS) *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)*, 40 C.F.R. Part 60, Subpart III since the units were manufactured prior to April 1, 2006. [40 C.F.R. § 60.4200]

3. National Emission Standards for Hazardous Air Pollutants (NESHAP):
40 C.F.R. Part 63, Subpart ZZZZ

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ is not applicable to the emergency engines listed above. The units are considered existing, emergency stationary reciprocating internal combustion engines at an area HAP source. However, they are considered exempt from the requirements of 40 C.F.R. Part 63, Subpart ZZZZ since they are categorized as institutional emergency engines and they do not operate or are not contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or frequency, or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 C.F.R. § 63.6640(f)(4)(ii).

Operation of any emergency engine in a demand response program, during a period of deviation from standard voltage or frequency, or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 C.F.R. § 63.6640(f)(4)(ii), would cause the engine to be subject to 40 C.F.R. Part 63, Subpart ZZZZ and require compliance with all applicable requirements.

D. Generators #5 and #9

DVA plans to replace their existing emergency Generator #5 with a new unit, which will also be designated as Generator #5. The new Generator #5 will fire distillate fuel, and its engine is rated at 2.62 MMBtu/hr. Generator #9 is an existing emergency generator that was installed in 2010, fires distillate fuel, and has an engine rated at 2.44 MMBtu/hr.

1. Best Available Control Technology (BACT) Findings for Generator #5

a. Particulate Matter: PM / PM₁₀

Particulate matter emissions from distillate fuel-fired engines are generally controlled through proper operation and maintenance. Additionally, the emergency engine for Generator #5 is subject to 40 C.F.R. Part 60, Subpart III - *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, which requires it to meet EPA emission standards for emergency stationary engines. Therefore, BACT for PM and PM₁₀ emissions from Generator #5 shall be the use of an EPA-certified emergency stationary engine as required in 40 C.F.R. § 60.4205(b) to drive the generator, the proper operation and maintenance of the emergency stationary engine, and meeting the following emission limits:

Pollutant	Emission Limit Basis	g/kW-hr	lb/hr
PM / PM ₁₀	Manufacturer Data (Emergency Engine Certified as Interim Tier 4)	0.02	0.014

b. Sulfur Dioxide: SO₂

For emergency engines that fire distillate fuel and operate for less than 100 hours per year in a non-emergency capacity, the use of wet scrubbers or other SO₂ add-on control methods would not be economically feasible considering the minimal emissions that would be generated by the limited use engines. The most practical method for limiting SO₂ emissions is the use of low sulfur fuel, such as distillate fuel having a sulfur content of no greater than 0.0015% by weight, in conjunction with the installation of an EPA-certified emergency stationary engine as required in 40 C.F.R. § 60.4205(b) to drive the generator, and meeting the following emission limits:

Pollutant	Emission Limit Basis	lb/hr
SO ₂	0.0015 lb/MMBtu, based on firing distillate fuel with a maximum sulfur content of 0.0015% by weight	0.004

c. Nitrogen Oxides: NO_x

Potentially available control options for reducing NO_x emissions from distillate fuel-fired generators include combustion controls, selective catalytic reduction (SCR), and non-selective catalytic reduction (NSCR). Combustion controls are typically implemented through design features such as electronic engine controls, injection systems, combustion chamber geometry, and turbocharging systems. Most new engines are designed with these features as standard equipment.

SCR is a post-combustion NO_x reduction technology that uses ammonia to react with NO_x in the gas stream in the presence of a catalyst to form nitrogen and water. SCR has not been a demonstrated NO_x control technology for emergency engines, and is not technically feasible for engines requiring quick start-ups and short operating periods. Additionally, SCR would not be economically feasible considering the minimal emissions generated by the emergency engine within its operating hour restriction, and the insignificant NO_x reduction that would be expected if SCR were installed.

NSCR is another post-combustion NO_x reduction technology that uses a catalyst to convert CO, NO_x and hydrocarbons into carbon dioxide, nitrogen and water without the use of an additional reagent. Engines operating with NSCR require strict air-to-fuel ratio control to maintain high reduction effectiveness without increasing hydrocarbon emissions. To achieve effective NO_x reduction performance with NSCR, the engine may need to run with a richer fuel mixture than normal, which means that the engines would have to run using less air per unit of fuel being combusted than they otherwise would. NSCR would not be economically feasible considering the minimal emissions generated by the emergency engine within its operating hour restriction, and the insignificant NO_x reduction that would be expected if NSCR were installed. NSCR would not be technically feasible because engines that fire distillate fuel inherently operate lean and therefore have exhaust oxygen levels higher than those required to effectively use NSCR.

Therefore, BACT for NO_x emissions from Generator #5 shall be the installation of an EPA-certified emergency stationary engine as required in 40 C.F.R. § 60.4205(b) to drive the generator, in conjunction with the use of good combustion controls, the proper operation and maintenance of the emergency stationary engine, and meeting the following emission limits:

Pollutant	Emission Limit Basis	g/kW-hr	lb/hr
NO _x	Manufacturer Data (Emergency Engine Certified as Interim Tier 4)	0.40	0.29

d. Carbon Monoxide and Volatile Organic Compounds: CO and VOC

CO and VOC emissions result from incomplete fuel combustion, caused by conditions such as insufficient residence time or limited oxygen availability. CO and VOC emissions from distillate fuel-fired engines are generally managed through good combustion controls and proper operation and maintenance of the engine. Oxidation catalysts have been used on large generator engines to reduce CO and VOC emission levels in the exhaust, but like NSCR technology, use of an oxidation catalyst on an emergency engine with limited yearly use would not provide a significant environmental benefit and thus would not be economically feasible.

BACT for CO and VOC emissions from Generator #5 shall be the installation of an EPA-certified emergency stationary engine as required in 40 C.F.R. § 60.4205(b) to drive the generator, in conjunction with the proper operation and maintenance of the unit, and meeting the following emission limits:

Pollutant	Emission Limit Basis	g/kW-hr	lb/hr
CO	Manufacturer Data (Emergency Engine Certified as Interim Tier 4)	3.5	2.5
VOC	Manufacturer Data (Emergency Engine Certified as Interim Tier 4)	0.19	0.14

e. Greenhouse Gas: GHG

Greenhouse gas emissions from medium to large-sized emergency engines are minimized through proper operation and maintenance, and maintaining the unit's efficiency. Based on the potential GHG emissions from the units assuming 100 hours per year of non-emergency operation (21 tons CO₂e per year total), no specific GHG emission limits are required for Generator #5.

f. Visible Emissions

BACT for visible emissions from Generator #5 shall be the following: Visible emissions shall not exceed 20% opacity on a six-minute block average basis.

g. Operating Hours Restriction

Generator #5 is being installed as an emergency generator, and as such shall be limited to an operating hour restriction of 100 hours per year of non-emergency operation in accordance with the requirements of 40 C.F.R. §§ 60.4211(f) and 60.4219.

2. BPT Findings for Generator #9

The BPT emission limits for Generator #9 are based on the following:

PM/PM ₁₀	- 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103
SO ₂	- combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
NO _x	- 4.41 lb/MMBtu from AP-42, Table 3.4-1 dated 10/96
CO	- 0.95 lb/MMBtu from AP-42, Table 3.4-1 dated 10/96
VOC	- 0.36 lb/MMBtu from AP-42, Table 3.4-1 dated 10/96
Opacity	- 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for the Generator #9 are based on the following:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #9 2.44 MMBtu/hr	0.29	0.29	0.01	10.76	2.32	0.88

Visible emissions from Generator #9 shall not exceed 20% opacity on a six-minute block average basis.

3. 40 C.F.R. Part 60, Subpart IIII

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart IIII is applicable to both Generator #5 and Generator #9 since they were ordered after July 11, 2005, and manufactured after April 1, 2006. [40 C.F.R. § 60.4200] By meeting the requirements of 40 C.F.R. Part 60, Subpart IIII, Generators #5 and #9 also meet the requirements found in the *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 C.F.R. Part 63, Subpart ZZZZ. [40 C.F.R. § 63.6590(c)]

A summary of the currently applicable federal 40 C.F.R. Part 60, Subpart III requirements is listed below.

a. Emergency Engine Designation and Operating Criteria

Under 40 C.F.R. Part 60, Subpart III, a stationary reciprocating internal combustion engine (ICE) is considered an **emergency** stationary ICE (emergency engine) as long as the engine is operated in accordance with the following criteria. Operation of an engine outside of the criteria specified below may cause the engine to no longer be considered an emergency engine under 40 C.F.R. Part 60, Subpart III, resulting in the engine being subject to requirements applicable to **non-emergency** engines.

(1) Emergency Situation Operation (On-Site)

There is no operating time limit on the use of an emergency engine to provide electrical power or mechanical work during an emergency situation. Examples of use of an emergency engine during emergency situations include the following:

- Use of an engine to produce power for critical networks or equipment (including power supplied to portions of a facility) because of failure or interruption of electric power from the local utility (or the normal power source, if the facility runs on its own power production);
- Use of an engine to mitigate an on-site disaster or equipment failure;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.

(2) Non-Emergency Situation Operation

An emergency engine may be operated up to a maximum of 100 hours per calendar year for maintenance checks, readiness testing, and other non-emergency situations as described below.

- (i) An emergency engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE more than 100 hours per calendar year.

- (ii) An emergency engine may be operated for up to 50 hours per calendar year for other non-emergency situations. **However, these operating hours are counted as part of the 100 hours per calendar year operating limit described in paragraph (2) and (2) (i) above.**

The 50 hours per calendar year operating limit for other non-emergency situations cannot be used for peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 C.F.R. §§ 60.4211(f) and 60.4219]

(1) 40 C.F.R. Part 60, Subpart IIII Requirements

(1) Manufacturer Certification Requirement

The engines shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 C.F.R. § 60.4202. [40 C.F.R. § 60.4205(b)]

(2) Ultra-Low Sulfur Fuel Requirement

The fuel fired in the engines shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

[40 C.F.R. § 60.4207(b)]

(3) Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on the engines. [40 C.F.R. § 60.4209(a)]

(4) Operation and Maintenance Requirements

The engines shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by DVA that are approved by the engines' manufacturers. DVA may only change those emission-related settings that are permitted by the manufacturer.

[40 C.F.R. § 60.4211(a)]

(5) Annual Time Limit for Maintenance and Testing

As emergency engines, the units each shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). [40 C.F.R. § 60.4211(f)]

(6) Initial Notification Requirement

No initial notification is required under 40 C.F.R. Part 60, Subpart IIII for emergency engines. [40 C.F.R. § 60.4214(b)]

(7) Recordkeeping

DVA shall keep records that include maintenance conducted on each of the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the units operated for emergency purposes, the number of hours the units operated for non-emergency purposes, and the reason the engines were in operation during each time. [40 C.F.R. § 60.4214(b)]

E. Ethylene Oxide Sterilizers

DVA operates two ethylene oxide (EO) sterilizer units, Steris Amsco Eagle Model 3017. Each has a capacity of 4.74 cubic feet, and they are used at the facility to sterilize medical equipment that is unable to withstand the higher temperatures and turbulence associated with conventional steam sterilization.

The two EO sterilizer units are each equipped with a Safe Cell II EO abator that was developed by Advanced Air Technologies, Inc. The abators are emission control devices that use a dry reactant media and patented technology to destroy the EO emissions through a chemical reaction, resulting in no hazardous or toxic by-products.

The EO sterilizer units are subject to 40 C.F.R. Part 63, Subpart WWWW, *National Emissions Standards for Hospital Ethylene Oxide Sterilizers*. According to the federal regulation, DVA must use the EO units to sterilize full loads of items having a common aeration time, except under medically necessary circumstances. [40 C.F.R. § 63.10390]

In accordance with 40 C.F.R. § 63.10400(c) of Subpart WWWW, DVA has demonstrated their initial compliance by submitting an Initial Notification of Compliance Status. The notification certified that the facility was venting the ethylene oxide emissions from each sterilization unit to an add-on pollution control device, and that they were operating the control device during all sterilization processes and were in accordance with the manufacturer's recommended procedures.

F. Parts Washer

The Safety-Kleen parts washer at DVA has a solvent capacity of 5 gallons and currently utilizes distillate fuel as the solvent cleaner. Because distillate fuel contains less than 5% of volatile organic compounds (VOC) by weight, DVA is exempt from the requirements of 06-096 C.M.R. ch. 130 – *Solvent Cleaners*. Should DVA change the solvent used in the parts washer from distillate fuel to one that is subject to the requirements of ch. 130, DVA shall comply with all applicable requirements of ch. 130.

G. Annual Emissions

1. Total Annual Emissions

DVA shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on a combined fuel limit of 1,800,000 gallons per year of distillate fuel for Boilers #1, #2 and #3, a heat input limit of 311,570 MMBtu per year for Boiler #4, and a non-emergency operating hour restriction of 100 hours per year for each of the emergency engines.

Total Licensed Annual Emissions for the Facility
Tons/year
 (used to calculate the annual license fee)

	<u>PM</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>NO_x</u>	<u>CO</u>	<u>VOC</u>
Boiler #1, #2 and #3	10.1	10.1	63.9	18.0	4.5	0.3
Boiler #4	4.7	4.7	3.9	39.0	39.0	2.7
Generator #1	0.01	0.01	0.01	0.35	0.08	0.03
Generator #4	0.04	0.04	0.01	0.99	0.26	0.03
Generator #5	0.02	0.02	0.01	0.58	0.12	0.05
Generator #7	0.01	0.01	0.01	0.26	0.06	0.02
Generator #8	0.03	0.03	0.01	0.75	0.20	0.02
Generator #9	0.01	0.01	0.01	0.54	0.12	0.04
Fire Pump (A)	0.01	0.01	0.01	0.19	0.04	0.02
Total TPY	14.9	14.9	67.9	60.7	44.4	3.2

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans*, 40 C.F.R. Part 52, Subpart A, § 52.21, *Prevention of Significant Deterioration of Air Quality* rule. Greenhouse gases, as defined in 06-096 C.M.R. ch. 100, are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO₂e).

The quantity of CO₂e emissions from this facility is less than 100,000 tons per year, based on the following:

- the facility's fuel use limits;
- worst case emission factors from the following sources: U.S. EPA's AP-42, the Intergovernmental Panel on Climate Change (IPCC), and *Mandatory Greenhouse Gas Reporting*, 40 C.F.R. Part 98;
- emergency generators operating hour limits; and
- global warming potentials contained in 40 C.F.R. Part 98.

No additional licensing actions to address GHG emissions are required at this time.

III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source is determined by the Department on a case-by case basis. In accordance with 06-096 C.M.R. ch. 115, an ambient air quality impact analysis is not required for a minor source if the total licensed annual emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

Pollutant	Tons/Year
PM ₁₀	25
SO ₂	50
NO _x	50
CO	250

DVA previously submitted an ambient air quality impact analysis for air emission license A-372-71-O-R/A (dated April 25, 2011) demonstrating that emissions from the facility, in conjunction with all other sources, do not violate Ambient Air Quality Standards (AAQS). An additional air quality impact analysis is not required for this renewal.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-372-71-R-R/A subject to the following conditions.

Severability - The invalidity or unenforceability of any provision of this License or part thereof shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S. § 347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 C.M.R. ch. 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 C.M.R. ch. 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 C.M.R. ch. 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115]

- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 C.M.R. ch. 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 C.M.R. ch. 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 C.M.R. ch. 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:
 - A. Perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 2. Pursuant to any other requirement of this license to perform stack testing.
 - B. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. Submit a written report to the Department within thirty (30) days from date of test completion. [06-096 C.M.R. ch. 115]

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. Within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department; and
 - B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
[06-096 C.M.R. ch. 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 C.M.R. ch. 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 C.M.R. ch. 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.
[06-096 C.M.R. ch. 115]

SPECIFIC CONDITIONS

(16) Boilers #1, #2, #3 and #4

A. Fuel

1. Distillate Fuel

- a. Boilers #1, #2 and #3 shall only fire distillate fuel.
- b. The combined total fuel use for Boilers #1, #2 and #3 shall not exceed 1,800,000 gallons per year of distillate fuel, based on a 12-month rolling total. [06-096 C.M.R. ch. 115, BPT]
- c. DVA shall be limited to operating only two of the three distillate fuel-fired boilers at any one time, with a maximum combined fuel input to the boilers of 622 gallons of per hour. [06-096 C.M.R. ch. 115, BPT]
- d. Prior to July 1, 2018, the facility shall fire distillate fuel with a maximum sulfur content not to exceed 0.5% by weight. [06-096 C.M.R. ch. 115, BPT]
- e. Beginning July 1, 2018, the facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm). [06-096 C.M.R. ch. 115, BPT]
- f. Compliance shall be demonstrated by fuel records from the supplier showing the quantity the percent sulfur by weight of the fuel delivered within the recorded dates. Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]

2. Biomass Fuel

- a. Boiler #4 shall only fire biomass fuel. [06-096 C.M.R. ch. 115, BPT]
- b. The total heat input into Boiler #4 at DVA shall not exceed 311,570 MMBtu per year (equivalent to 29,600 tons of biomass fuel per year at a moisture content of 37%) on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]
- c. Boiler #4 shall use a multiclone and an electrostatic precipitator (ESP) to control PM emissions. [06-096 C.M.R. ch. 115, BPT]
- d. Records of annual biomass fuel use shall be kept on a monthly and 12-month rolling total basis. Records shall include the quantity and the moisture content of the fuel fired within the recorded dates. [06-096 C.M.R. ch. 115, BPT]

B. Emissions from Boilers #1, #2 and #3 shall not exceed the following:

<u>Emission Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
Boilers #1, #2 & #3	PM	0.08	06-096 C.M.R. ch. 115, BPT

C. Emissions from Boilers #1, #2 and #3 shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

<u>Emission Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Boiler #1	4.02	4.02	25.46	7.18	1.80	0.12
Boiler #2	6.01	6.01	38.09	10.72	2.68	0.18
Boiler #3	2.05	2.05	12.98	3.66	0.92	0.06

D. Emissions from Boiler #4 shall not exceed the following:

<u>Emission Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
Boiler #4	PM	0.03	Air Emission License A372-71-O-R/A, dated April 25, 2011, BACT

E. Emissions from Boiler #4 shall not exceed the following [A372-71-O-R/A (April 25, 2011), BACT]:

<u>Emission Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Boiler #4	1.14	1.14	0.95	9.50	9.50	0.65

F. DVA shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to Boilers #1, #2, #3 and #4 including, but not limited to, the following:

1. Standards

a. Sulfur Dioxide (SO₂)

The distillate fuel fired in Boilers #1, #2 and #3 shall not exceed 0.5% sulfur by weight. [40 C.F.R. § 60.42c(d)] This fuel sulfur content limit shall be streamlined to the lower limit required by State statute as of July 1, 2018.

b. Particulate Matter (PM)

Based on their sizes, ages and the fuel that they fire, the PM emission limit for Boilers #1, #2 and #3 shall be 0.08 lb/MMBtu. [A-372-71-O-R/A, dated April 25, 2011, BPT]

The PM emission limit for Boiler #4 found in Subpart Dc is less stringent than the PM emission limit found in Table 1 (line 3) of 40 C.F.R. Part 63, Subpart JJJJJ - *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*. DVA shall comply with the PM emission limit of 0.03 lb/MMBtu for Boiler #4, from Subpart JJJJJ. [40 C.F.R. § 60.43c(e)(3) and 40 C.F.R. Part 63, Subpart JJJJJ]

c. Visible Emissions

Visible emissions from the common stack (Stack 239) for Boilers #1, #2, #3 and #4 shall not exceed 20% opacity on a 6-minute block average, except for one 6-minute block average per hour of not more than 27% opacity. [40 C.F.R. § 60.43c(c)]

2. Monitoring Requirements

DVA shall install, calibrate, maintain, operate on a continuous basis, and record the output of a continuous opacity monitoring system (COMS) on the common (main) stack for Boilers #1, #2, #3 and #4, in accordance with the requirements of 40 C.F.R. Part 60, Subpart Dc. The COMS shall meet the requirements of 40 C.F.R. Part 60, Appendix B, *Performance Specification 1* and 06-096 C.M.R. ch. 117, *Source Surveillance – Emissions Monitoring*.

[40 C.F.R. § 60.47c(a) and (b), 06-096 C.M.R. ch. 117]

3. Reporting and Recordkeeping

a. DVA shall submit the performance test data from the initial and any subsequent performance tests, as well as the performance evaluation of the COMS using Performance Specification 1 – Specifications and Test Procedures for Continuous Opacity Monitoring Systems in Stationary Sources, In Appendix B of 40 C.F.R. Part 60. [40 C.F.R. § 60.48c(b)]

- b. DVA shall maintain monthly records of the amounts of each fuel combusted in each boiler during each calendar month. [40 C.F.R. § 60.48c(g)]
 - c. DVA shall submit semi-annual reports to EPA and to the Department. [40 C.F.R. § 60.48c(d)] These reports shall include the following:
 - (i) Calendar dates covered in the reporting period; [40 C.F.R. § 60.48c(e)(1)]
 - (ii) Records of fuel supplier certifications; [40 C.F.R. § 60.48c(e)(11)] and
 - (iii) Any instances of excess emissions (including opacity) from Boilers #1, #2, #3 and #4. [40 C.F.R. § 60.48c(c)]
 - d. The semi-annual reports are due within 30 days of the end of each six-month period. [40 C.F.R. § 60.48c(j)]
- G. DVA shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJ applicable to Boilers #1, #2, #3 and #4 including, but not limited to, the following: [incorporated under 06-096 C.M.R. ch. 115, BPT]
- 1. Operation
 - a. PM emissions from Boiler #4 shall be limited to less than or equal to 0.03 lb/MMBtu, except during periods of startup or shutdown. [40 C.F.R. Part 63, Subpart JJJJJ, Table 1, line 3]
 - b. DVA shall operate Boiler #4 such that it does not exceed 110 percent of the average operating load recorded during the most recent performance stack test. [40 C.F.R. Part 63, Subpart JJJJJ, Table 3, line 7]
 - c. DVA shall minimize the startup and shutdown periods for Boilers #1, #2, #3 and #4, and shall conduct startups and shutdowns according to the manufacturers' recommended procedures. [40 C.F.R. Part 63, Subpart JJJJJ, Table 2, line 1]
 - 2. Establishing Operating Limits
 - a. DVA shall establish a unit-specific limit for maximum operating load for Boiler #4, in accordance with § 63.11212(c) by:

- (1) Collecting operating load data (fuel feed rate or steam generation data) every 15 minutes during the entire period of the performance test; and
- (2) Determining the average operating load data by computing the hourly averages using all of the 15-minute readings taken during each performance test; and
- (3) Determining the average of the three test run averages during the performance test; and
- (4) Multiplying the average of the three test run averages during the performance test by 1.10 (110 percent) to determine your operating limit.

[40 C.F.R. Part 63, Subpart JJJJJ, Table 6, line 4]

- b. DVA shall establish a site-specific minimum total secondary electric power operating limit for the electrostatic precipitator on Boiler #4 by:
 - (1) Collecting the secondary electric power data every 15 minutes during the entire period of the performance stack tests; and
 - (2) Determining the average total secondary electric power for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.

[40 C.F.R. Part 63, Subpart JJJJJ, Table 6, line 1(b)]

3. Compliance Requirements

- a. DVA shall demonstrate continuous compliance with their boiler operating load limit by:
 - (1) Collecting operating load data (fuel feed rate or steam generation data) for Boiler #4 every 15 minutes; and
 - (2) Reducing the operating load data to 30-day rolling averages; and
 - (3) Maintaining the 30-day rolling average at or below the operating limit established during the performance test according to § 63.11212(c) and Table 6 to Subpart JJJJJ.

[40 C.F.R. Part 63, Subpart JJJJJ, Table 7, line 9]

- b. DVA shall demonstrate continuous compliance with their opacity limit by:
- (1) Collecting Continuous Opacity Monitoring System (COMS) data for opacity according to §§ 63.11224(e) and 63.11221; and
 - (2) Reducing the opacity monitoring data to 6-minute averages; and
 - (3) Maintaining opacity to less than or equal to 10 percent (daily block average).

[40 C.F.R. Part 63, Subpart JJJJJ, Table 7, line 1]

- c. DVA shall demonstrate continuous compliance with their PM emission limit by:
- (1) Collecting the total secondary electric power monitoring system data for the electrostatic precipitator for Boiler #4 according to §§ 63.11224 and 11221; and
 - (2) Reducing the total secondary electric power monitoring system data to 30-day rolling averages; and
 - (3) Maintaining the 30-day rolling average total secondary electric power, as defined in 40 C.F.R. § 63.11237, for the electrostatic precipitator for Boiler #4 at or above the minimum total secondary electric power according to § 63.11221).

[40 C.F.R. Part 63, Subpart JJJJJ, Table 3, line 2 and Table 7, line 5]

4. Boiler Tune-Up Program

The facility shall implement a boiler tune-up program. [40 C.F.R. § 63.11223]

- a. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

Boiler Category	Tune-Up Frequency
New or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with less frequent tune up requirements".	Every 2 years

[40 C.F.R. § 63.11223(a) and Table 2]

- b. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
- (1) As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. [40 C.F.R. § 63.11223(b)(1)]
 - (2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F.R. § 63.11223(b)(2)]
 - (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. [40 C.F.R. § 63.11223(b)(3)]
 - (4) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
 - (5) Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
[40 C.F.R. § 63.11223(b)(5)]
 - (6) If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up.
[40 C.F.R. § 63.11223(b)(7)]
- c. Tune-Up Report: A tune-up report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the following information:
- (1) The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
 - (2) A description of any corrective actions taken as part of the tune-up of the boiler; and
 - (3) The types and amounts of fuels used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
[40 C.F.R. § 63.11223(b)(6)]

5. Performance Testing

- a. Performance testing for PM emissions from Boiler #4 shall be done in accordance with § 63.11212. [40 C.F.R. Part 63, Subpart JJJJJ, Table 4]
- b. DVA shall conduct their next performance test for PM emissions from Boiler #4 on or before September 14, 2021. [40 C.F.R. § 63.11220(b)(1)]
- c. If the next subsequent performance test results show that DVA's PM emissions are equal to or less than 0.015 lb/MMBtu, DVA may choose to conduct performance tests for PM from Boiler #4 every fifth year. Each such performance test must be conducted no more than 61 months after the previous performance test. [40 C.F.R. § 63.11220(b)(2)]
- d. If the next subsequent performance test results show that DVA's PM emissions are greater than 0.015 lb/MMBtu, DVA shall conduct performance tests for PM from Boiler #4 on a triennial basis. Each such performance test must be conducted no more than 61 months after the previous performance test. [40 C.F.R. § 63.11220(b)(4)]
- e. Triennial performance tests must be completed no more than 37 months after the previous performance test. [40 C.F.R. § 63.11220(a)]

6. Compliance Report

For Boilers #1, #2, #3 and #4, DVA shall prepare a compliance certification report by March 1st biennially which covers the previous two calendar years. The report shall be maintained by the source and submitted to the Department and/or to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 63.11225(b)]

- a. Company name and address;
- b. A statement of whether the source has complied with all the relevant requirements of this Subpart;
- c. A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;

- d. The following certifications, as applicable:
- (1) "This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
 - (2) "No secondary materials that are solid waste were combusted in any affected unit."
 - (3) "This facility complies with the requirement in §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

In addition to the requirements listed above, the biennial compliance certification report for Boiler #4 shall include the following additional information because Boiler #4 is subject to a PM emission limit stipulated by 40 C.F.R. Part 63, Subpart JJJJJJ.

- e. If the sources experience any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken; and
- f. The total fuel use by each affected boiler subject to an emission limit for each calendar month within the reporting period.
7. Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJJ including the following [40 C.F.R. § 63.11225(c)]:
- a. Copies of notifications and reports with supporting compliance documentation;
 - b. Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
 - c. Records of the occurrence and duration of each malfunction of each applicable boiler; and
 - d. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review. EPA requires submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system. [40 C.F.R. § 63.11225(a)(4)(vi)]

(17) **Generators #1, #4, #7 and #8 and Fire Pump (A)**

- A. Emergency Generators #1, #4, #7, #8 and Fire Pump (A) shall each be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 115, BPT]
- B. DVA shall keep records that include maintenance conducted on each of the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [06-096 C.M.R. ch. 115, BPT]
- C. The fuel sulfur content for Generators #1, #4, #7 and #8 and Fire Pump (A) shall be limited to 0.0015% sulfur by weight. Compliance shall be demonstrated by fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [06-096 C.M.R. ch. 115, BPT]
- D. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator #4 and #8	PM	0.12	06-096 C.M.R. ch. 103, § (2)(B)(1)(a)

- E. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1 1.60 MMBtu/hr	0.19	0.19	0.01	7.06	1.52	0.58
Generator #4 6.20 MMBtu/hr	0.74	0.74	0.01	19.84	5.27	0.56
Generator #7 1.20 MMBtu/hr	0.14	0.14	0.01	5.29	1.14	0.43
Generator #8 4.67 MMBtu/hr	0.56	0.56	0.01	14.94	3.97	0.42
Fire Pump (A) 0.85 MMBtu/hr	0.10	0.10	0.01	3.75	0.81	0.31

F. Visible Emissions

Visible emissions from each of the distillate fuel-fired generators and the fire pump shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

G. Emergency generators and/or fire pumps are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Emergency generators and/or fire pumps are not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity.

(18) **Generators #5 and #9**

A. Emergency Generators #5 and #9 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT and BACT]:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #5 2.62 MMBtu/hr	0.014	0.014	0.004	0.29	2.5	0.14
Generator #9 2.44 MMBtu/hr	0.29	0.29	0.01	10.76	2.32	0.88

C. Visible Emissions

Visible emissions from Generator #5 and Generator #9 shall each not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT and BACT]

D. Emergency Generators #5 and #9 shall each meet the applicable requirements of 40 C.F.R. Part 60, Subpart III, including the following: [incorporated under 06-096 C.M.R. ch. 115, BPT and BACT]

1. Manufacturer Certification

The engines shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in § 60.4202. [40 C.F.R. § 60.4205(b)]

2. Ultra-Low Sulfur Fuel

The fuel fired in the engines shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. Compliance with the fuel sulfur content limit shall be based on fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [40 C.F.R. § 60.4207(b) and 06-096 C.M.R. ch. 115]

3. Non-Resettable Hour Meter

A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 60.4209(a)]

4. Annual Time Limit for Maintenance and Testing

a. As emergency engines, the units shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written log) of all engine operating hours. [40 C.F.R. § 60.4211(f) and 06-096 C.M.R. ch. 115]

b. DVA shall keep records that include maintenance conducted on each engine and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 60.4214(b)]

5. Operation and Maintenance

The engines shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by DVA that are approved by the engine manufacturer. DVA may only change those emission-related settings that are permitted by the manufacturer.
[40 C.F.R. § 60.4211(a)]

(19) **Ethylene Oxide Sterilizers**

DVA shall operate the EO sterilizers in accordance with the *National Emissions Standards for Hospital Ethylene Oxide Sterilizers* - 40 C.F.R. Part 63, Subpart WWWW. These practices shall include, but not limited to:

- A. Operating the add-on pollution control during all EO sterilization processes, operating the EO sterilizers in accordance with the manufacturer's recommended procedures, and;
- B. Sterilizing full loads of items having a common aeration time except under medically necessary circumstances. For purposes of this air license, *medically necessary circumstances* is defined in 40 C.F.R. § 63.10448 as circumstances that a hospital central services staff, a hospital administrator, or a physician would conclude, based on generally accepted medical practices, would necessitate sterilizing without a full load in order to protect human health.

[40 C.F.R. Part 63, Subpart WWWW]

(20) **Parts Washer**

The Safety-Kleen parts washer at DVA is currently exempt from the requirements of 06-096 C.M.R. ch. 130 – *Solvent Cleaners* as it utilizes distillate fuel as the solvent cleaner. Should DVA change the solvent used in the parts washer from distillate fuel to one that is subject to the requirements of ch. 130, DVA shall comply with all applicable requirements of ch. 130.

(21) **Parameter Monitors**

Each parameter monitor must record accurate and reliable data. If the parameter monitor is recording accurate and reliable data less than 98% of the source operating time within any quarter of the calendar year, the Department may initiate enforcement action and may include in that enforcement action any period of time that the parameter monitor was not recording accurate and reliable data during that quarter unless the licensee can demonstrate to the satisfaction of the Department that the failure of the system to record accurate and reliable data was due to the performance of established quality assurance and quality control procedures or unavoidable malfunctions. [06-096 C.M.R. ch. 115, BPT]

(22) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, the licensee shall annually report to the Department, in a format prescribed by the Department, the information necessary to accurately update the State's emission inventory. The emission statement shall be submitted as specified by the date in 06-096 C.M.R. ch. 137.

(23) DVA shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S. § 605).

DONE AND DATED IN AUGUSTA, MAINE THIS 8 DAY OF June, 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for
PAUL MERCER, COMMISSIONER

The term of this license shall be ten (10) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: March 29, 2016

Date of application acceptance: March 29, 2016

Date filed with the Board of Environmental Protection:

This Order prepared by Patric J. Sherman, Bureau of Air Quality.

