



DEPARTMENT ORDER

**Maine Air National Guard  
Penobscot County  
Bangor, Maine  
A-627-71-J-R/A (SM)**

**Departmental  
Findings of Fact and Order  
Air Emission License  
Renewal/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 Maine Air National Guard (Air Guard) has applied to renew their Air Emission License permitting the operation of air emissions sources associated with their Air National Guard base. The equipment addressed in this license is located at or near the Bangor International Airport in Bangor, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

1. Boilers and Heaters

The Air Guard utilizes several boilers, furnaces, heaters, and hot water heaters at this facility, where they maintain and refurbish military aircraft, including some small-scale painting and fiberglass work as needed. Several fuel burning units are not required to be included in the air emission license due to their rated heat input capacities below licensing applicability thresholds. The units with capacities above licensing thresholds and for which there are applicable state and/or federal requirements are listed in the following table.

Boilers and Heaters

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Fuel Firing Rate</u>	<u>Fuel Type</u>	<u>Dates of Manuf./Install.</u>	<u>Stack #</u>
Boiler AEI-L-416-1	1.81	13.2 gal/hr	Distillate Fuel (0.0015% sulfur)	1989/1989	416-A
Boiler AEI-L-417-1	1.81	13.2 gal/hr		1985/1986	417-A
Boiler AEI-L-417-2	4.8	35 gal/hr		1986/1986	417-B
Boiler AEI-L-420-1	1.23	1,230 scf/hr	Natural Gas	2009/2009	420-A
Boiler AEI-L-423-1	1.78	13 gal/hr	Distillate Fuel (0.0015% sulfur)	1998/1998	423-A
Boiler AEI-L-486-2	1.78	13 gal/hr		1999/2000	486-B
Boiler AEI-L-488-1	1.36	14.9 gal/hr	Propane	1994/1994	488-A
Boiler AEI-L-488-2	1.00	10.6 gal/hr		1995/1995	488-B
Boiler AEI-L-488-3	1.00	10.6 gal/hr			488-C
Boiler AEI-L-488-4	1.00	10.6 gal/hr			488-D
Boiler AEI-L-489-1	1.37	10 gal/hr	Distillate Fuel (0.0015% sulfur)	1986/1986	489-A
Boiler AEI-L-491-1	1.37	10 gal/hr		1998/1999	491-A
Boiler AEI-L-493-1	1.00	1,000 scf/hr	Natural Gas	2011/2011	493-A
Boiler AEI-L-493-2	1.00	1,000 scf/hr			493-B
Boiler AEI-L-499-1	4.00	4,000 scf/hr		2011/2012	499-A
Boiler AEI-L-499-2	4.00	4,000 scf/hr			499-B
Boiler AEI-L-499-3	4.00	4,000 scf/hr			499-C
Water Heater AEI-L-499-4	1.50	1,500 scf/hr			499-D
Boiler AEI-L-510-1	1.08	7.9 gal/hr		Distillate Fuel (0.0015% sulfur)	2004/2004
Boiler AEI-L-510-2	1.08	7.9 gal/hr			
Boiler AEI-L-512-1	1.78	13 gal/hr	Distillate Fuel (0.0015% sulfur)	2001/2001	512-A
Boiler AEI-L-513-1	2.71	19.8 gal/hr		1986/1986	513-A
Boiler AEI-L-515-1	1.78	13 gal/hr	Distillate Fuel (0.0015% sulfur)	2008/2008	515-A
Boiler AEI-L-515-2	1.78	13 gal/hr			
Boiler AEI-L-518-1	1.78	13 gal/hr	Distillate Fuel (0.0015% sulfur)	1999/1999	518-A
Boiler AEI-L-518-2	1.78	13 gal/hr			
Boiler AEI-L-532-1	2.71	19.8 gal/hr	Distillate Fuel (0.0015% sulfur)	2005/2005	532-A
Boiler AEI-L-541-1	1.51	11 gal/hr		1991/1993	541-A
Boiler AEI-L-542-1	4.8	35 gal/hr		1994/1996	542-A

2. Generators and Engines

All generators and fire pump engines identified in the table below fire distillate fuel with a sulfur content not to exceed 0.0015% by weight.

**Generators and Engines**

New Unit ID	Old Unit ID	Max. Capacity (MMBtu/hour)	Output Capacity		Firing Rate (gal/hour)	Date of Manuf./Install.	Stack #
			kW	HP			
<b>Generators</b>							
AEI-L-002		3.67	100	139	26.8	1984	N.A.
AEI-L-019		0.77	60	83.5	5.6	2003	
AEI-L-033		0.55	60	83.5	4.0	1987/2014	Portable
AEI-L-034		0.77	60	83.5	5.6	1998	
AEI-L-043		0.77	60	83.5	5.6	2007 / N/A	
AEI-L-101		0.73	60	83.5	5.3	2010/2011	N.A.
AEI-L-102		2.33	200	278	17.0	2010/2011	
AEI-L-103 (new)		To Be Determined				2015	
AEI-L-104		3.67	100	139	26.8	2010/2011	
AEI-L-105	AEI-L-035	0.84	17	24	6.1	1-16-2006/2007	
AEI-L-106		0.73	60	83.5	5.3	2010/2011	
AEI-L-107	AEI-L-006	1.60	150	209	11.7	2004 / N/A	
AEI-L-108		0.73	60	83.5	5.3	2010/2011	
AEI-L-109	AEI-L-027	0.96	80	111	7.0	1986/2000	
AEI-L-110 (new) <sup>1</sup>		2.66	250	348	19.4	2001/2014	
AEI-L-111		7.33	750	1043	53.5	2011/2012	
AEI-L-112 (new) <sup>2</sup>		3.67	100	139	26.8	2010/2012	
AEI-L-113	AEI-L-010	4.21	350	487	30.7	1984/1984	
AEI-L-114	AEI-L-011	4.21	350	487	30.7	1984/1984	
AEI-L-115	AEI-L-014	0.90	125	174	6.6	1999/2001	
AEI-L-116	AEI-L-015	1.60	150	209	11.7	1997/1998	
AEI-L-117		1.16	100	139	8.5	2008/2009	
AEI-L-118	AEI-L-016	5.51	500	696	40.2	1998/1999	
AEI-L-120		0.73	60	83.5	5.3	2010/2011	
AEI-L-121	AEI-L-038	0.53	35	49	3.9	2003/2003	
AEI-L-123		3.67	100	139	26.8	2010/2011	
AEI-L-124		0.89	18	25	6.5	1-16-2006/2006	
AEI-L-125		0.81	60	83.5	5.9	2012/2014	
AEI-L-126		0.81	60	83.5	5.9		
AEI-L-127 (new) <sup>3</sup>		3.14	300	417	22.9	2013/2014	N.A.

<sup>1</sup> This unit has replaced AEI-L-008, which is not included in this license.

<sup>2</sup> This unit has replaced AEI-L-009, which is not included in this license.

<sup>3</sup> This unit has replaced AEI-L-119, which is not included in this license.

<u>New Unit ID</u>	<u>Old Unit ID</u>	<u>Max. Capacity (MMBtu/hour)</u>	<u>Output Capacity</u>		<u>Firing Rate (gal/hour)</u>	<u>Date of Manuf./Install.</u>	<u>Stack #</u>
			<u>kW</u>	<u>HP</u>			
AEI-L-128 (new) <sup>4</sup>		0.71	60	83.5	5.2	2015	
AEI-L-129 (new) <sup>5</sup>		0.50	60	83.5	3.7		

<u>New Unit ID</u>	<u>Max. Capacity (MMBtu/hour)</u>	<u>Output Capacity</u>	<u>Firing Rate (gal/hour)</u>	<u>Date of Manuf./Install.</u>	<u>Stack #</u>
<b>Fire Pumps</b>					
AEI-L-003	3.43	500 HP	25	1994/1994	Portable
AEI-L-004	3.43	500 HP	25		
AEI-L-005	3.43	500 HP	25		

### 3. Process Equipment

The Air Guard utilizes the following process equipment in support of the facility's operations.

#### Process Equipment

<u>Equipment</u>	<u>Production Rate / Capacity</u>	<u>Pollution Control Equipment</u>	<u>Date of...</u>	<u>Stack #</u>
Paint Booth (BLDG 499)	1 gal/week (paint) 1 gal/week (primer) 3 gal/week (thinner) Topcoat	Paper Filters	Manufacture and Installation:	1
Cold Parts Washer-AGE	15 gallons (capacity)	N/A	2012	Fugitive
Cold P.M.-Pneudraulics	15 gallons (capacity)			

### 4. Fuel Storage Tanks

Fuel storage tanks at the facility which have capacity greater than 10,000 gallons, the licensing threshold level as identified in 06-096 C.M.R. ch. 115, are included in the following table.

#### Fuel Storage Tanks

<u>Tank</u>	<u>Capacity (gallons)</u>	<u>Material Stored</u>	<u>Tank Type</u>	<u>Tank Size (height) x (diameter)</u>	<u>Installation Year</u>
AO11	420,000	Jet A	Above ground, steel, with floating roof	39 ft x 43.5 ft	1994
AO12	420,000			39 ft x 43.5 ft	1994

<sup>4</sup> This unit will replace AEI-L-109, which is not included in this license.

<sup>5</sup> This unit will replace AEI-L-121, which is not included in this license.

C. Definition

*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.

D. Application Classification

The application for the Air Guard does not include the licensing of increased emissions. Since the most recent licensing action, some distillate fuel-fired boilers have been replaced with smaller, propane and/or natural gas-fired boilers below the licensing threshold and have thus been removed from the license. Other boilers and generators have been removed from service and thus removed from the license. Two of the generators listed in the previous license have been replaced with new generators of similar size, as reflected in this license. Therefore, this license is considered to be a renewal for currently licensed emission units and an amendment to remove certain units and to include replacement units. This application has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115 (as amended).

With the annual fuel limit on the boilers, the VOC limits associated with the process sources, and the restriction on non-emergency operating hours of the emergency back-up generators and fire pump engines, the facility is licensed as follows:

- As a synthetic minor source of air emissions, because the licensed emissions are below the major source thresholds for criteria pollutants; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

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 (as amended). 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 06-096 C.M.R. ch. 100 (as amended). BACT is a top-down approach to selecting air emission controls considering economic, environmental, and energy impacts. The Air Guard is subject to BACT requirements for six generators which are new since the previous license renewal. Descriptions of the applicable requirements are provided below under the appropriate headings.

**B. Boilers and Water Heater**

The Air Guard operates several boilers and a hot water heater to provide heat and hot water to the various buildings that make up the facility. These fuel burning units are grouped in the following tables by fuel type.

**Distillate Fuel-Fired Boilers**

Distillate fuel-fired boilers at the facility are identified in the following table. The distillate fuel fired in these units has a sulfur content not to exceed 0.0015% by weight:

<b>Distillate Fuel-Fired Boilers</b>	<b>Maximum Capacity (MMBtu/hr)</b>	<b>Maximum Fuel Firing Rate</b>	<b>Dates of Manuf./Install.</b>	<b>Stack #</b>
Boiler AEI-L-416-1	1.81	13.2 gal/hr	1989/1989	416-A
Boiler AEI-L-417-1	1.81	13.2 gal/hr	1985/1986	417-A
Boiler AEI-L-417-2	4.8	35 gal/hr	1986/1986	417-B
Boiler AEI-L-423-1	1.78	13 gal/hr	1998/1998	423-A
Boiler AEI-L-486-2	1.78	13 gal/hr	1999/2000	486-B
Boiler AEI-L-489-1	1.37	10 gal/hr	1986-1986	489-A
Boiler AEI-L-491-1	1.37	10 gal/hr	1998/1999	491-A
Boiler AEI-L-510-1	1.08	7.9 gal/hr	2004/2004	510-A
Boiler AEI-L-510-2	1.08	7.9 gal/hr		
Boiler AEI-L-512-1	1.78	13 gal/hr	2001/2001	512-A
Boiler AEI-L-513-1	2.71	19.8 gal/hr	1986/1986	513-A
Boiler AEI-L-515-1	1.78	13 gal/hr	2008/2008	515-A
Boiler AEI-L-515-2	1.78	13 gal/hr		515-A
Boiler AEI-L-518-1	1.78	13 gal/hr	1999/1999	518-A
Boiler AEI-L-518-2	1.78	13 gal/hr		518-A
Boiler AEI-L-532-1	2.71	19.8 gal/hr	2005/2005	532-A

<b>Distillate Fuel-Fired Boilers</b>	<b>Maximum Capacity (MMBtu/hr)</b>	<b>Maximum Fuel Firing Rate</b>	<b>Dates of Manuf./Install.</b>	<b>Stack #</b>
Boiler AEI-L-541-1	1.51	11 gal/hr	1991/1993	541-A
Boiler AEI-L-542-1	4.8	35 gal/hr	1994/1996	542-A

**Propane-Fired Boilers**

Propane-fired boilers at the facility are the following, each of which exhausts through its own stack:

<b>Propane-Fired Units</b>	<b>Maximum Capacity (MMBtu/hr)</b>	<b>Maximum Fuel Firing Rate</b>	<b>Dates of Manuf./Install.</b>	<b>Stack #</b>
Boiler AEI-L-488-1	1.36	14.9 gal/hr	1994/1994	488-A
Boiler AEI-L-488-2	1.00	10.6 gal/hr	1995/1995	488-B
Boiler AEI-L-488-3	1.00	10.6 gal/hr		488-C
Boiler AEI-L-488-4	1.00	10.6 gal/hr		488-D

**Natural Gas-Fired Boilers and Water Heater**

Natural gas-fired boilers and the natural gas-fired water heater at the facility are the following, each of which exhausts through its own stack:

<b>Natural Gas-Fired Units</b>	<b>Maximum Capacity (MMBtu/hr)</b>	<b>Maximum Fuel Firing Rate</b>	<b>Dates of Manuf./Install.</b>	<b>Stack #</b>
Boiler AEI-L-420-1	1.23	1,230 scf/hr	2009/2009	420-A
Boiler AEI-L-493-1	1.00	1,000 scf/hr	2011/2011	493-A
Boiler AEI-L-499-1	4.00	4,000 scf/hr	2011/2012	499-A
Boiler AEI-L-499-2	4.00	4,000 scf/hr		499-B
Boiler AEI-L-499-3	4.00	4,000 scf/hr		499-C
Water Heater AEI-L-499-4	1.50	1,500 scf/hr		499-D

1. BACT/BPT Findings

The BACT/BPT emission limits for each fuel burning unit were based on the following, by fuel:

Distillate Fuel

<b>Pollutant</b>	<b>Emission Factor</b>	<b>Source of Emission Factor</b>
PM, PM <sub>10</sub>	0.08 lb/MMBtu	A-627-71-I-A (June 28, 2012), BACT
SO <sub>2</sub>	0.0015 lb/MMBtu	Based on firing distillate fuel with a maximum sulfur content of 0.0015% by weight
NO <sub>x</sub>	20 lb/1000 gal	AP-42, Table 1.3-1 (5/10)
CO	5 lb/1000 gal	
VOC	0.34 lb/1000 gal	

Natural Gas

<u>Pollutant</u>	<u>Emission Factor</u>	<u>Source of Emission Factor</u>
PM, PM <sub>10</sub>	0.05 lb/MMBtu	A-627-71-I-A (June 28, 2012), BACT
SO <sub>2</sub>	0.6 lb/MMscf	AP-42, Table 1.4-2 (7/98)
NO <sub>x</sub>	100 lb/MMscf	AP-42, Table 1.4-1 (7/98)
CO	84 lb/MMscf	AP-42, Table 1.4-1 (7/98)
VOC	5.5 lb/MMscf	AP-42, Table 1.4-2 (7/98)

Propane

<u>Pollutant</u>	<u>Emission Factor</u>	<u>Source of Emission Factor</u>
PM, PM <sub>10</sub>	0.2 lb/1000 gal	AP-42, Table 1.5-1 (7/08)
SO <sub>2</sub> <sup>6</sup>	0.054 lb/1000 gal	
NO <sub>x</sub>	13 lb/1000 gal	
CO	7.5 lb/1000 gal	
VOC	1.0 lb/1000 gal	

The BACT/BPT emission limits for each boiler and the Water Heater are the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Authority</u>
Boiler AEI-L-417-2	PM	0.12	06-096 C.M.R. ch. 103 (2)(B)(1)(a); applicable to units larger than 3.0 MMBtu/hour
Boiler AEI-L-542-1			
Boiler AEI-L-499-1			
Boiler AEI-L-499-2			
Boiler AEI-L-499-3			

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM<sub>10</sub> (lb/hr)</u>	<u>SO<sub>2</sub> (lb/hr)</u>	<u>NO<sub>x</sub> (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
<b><i>Distillate Fuel-Fired Boilers</i></b>						
Boiler AEI-L-416-1 (1.81 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-417-1 (1.81 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-417-2 (4.8 MMBtu/hr)	0.38	0.38	0.007	0.7	0.09	0.006
Boiler AEI-L-423-1 (1.78 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-486-2 (1.78 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-489-1 (1.37 MMBtu/hr)	0.11	0.11	0.002	0.20	0.03	0.002

<sup>6</sup> Based on AP-42 factor of 0.10S lb/1000 gal, where S = 0.54 grains/100 ft<sup>3</sup>.



<b>Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
<b><i>Distillate Fuel-Fired Boilers, Continued</i></b>						
Boiler AEI-L-491-1 (1.37 MMBtu/hr)	0.11	0.11	0.002	0.20	0.03	0.002
Boiler AEI-L-510-1 (1.08 MMBtu/hr)	0.09	0.09	0.002	0.16	0.02	0.001
Boiler AEI-L-510-2 (1.08 MMBtu/hr)	0.09	0.09	0.002	0.16	0.02	0.001
Boiler AEI-L-512-1 (1.78 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-513-1 (2.71 MMBtu/hr)	0.22	0.22	0.004	0.40	0.05	0.003
Boiler AEI-L-515-1 (1.78 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-515-2 (1.78 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-518-1 (1.78 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-518-2 (1.78 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-532-1 (2.71 MMBtu/hr)	0.22	0.22	0.004	0.40	0.05	0.003
Boiler AEI-L-541-1 (1.51 MMBtu/hr)	0.12	0.12	0.002	0.22	0.03	0.002
Boiler AEI-L-542-1 (4.8 MMBtu/hr)	0.38	0.38	0.01	0.35	0.09	0.01
<b><i>Propane-Fired Boilers</i></b>						
Boiler AEI-L-488-1 (1.36 MMBtu/hr)	0.003	0.003	negligible	0.19	0.11	0.02
Boiler AEI-L-488-2 (1.00 MMBtu/hr)	0.002	0.002	negligible	0.14	0.08	0.001
Boiler AEI-L-488-3 (1.00 MMBtu/hr)	0.002	0.002	negligible	0.14	0.08	0.001
Boiler AEI-L-488-4 (1.00 MMBtu/hr)	0.002	0.002	negligible	0.14	0.08	0.001

<b>Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
<b><i>Natural Gas-Fired Boilers</i></b>						
Boiler AEI-L-420-1 (1.23 MMBtu/hr)	0.06	0.06	negligible	0.12	0.10	0.01
Boiler AEI-L-493-1 (1.00 MMBtu/hr)	0.05	0.05	negligible	0.10	0.08	0.01
Boiler AEI-L-499-1 (4.00 MMBtu/hr)	0.2	0.2	negligible	0.40	0.34	0.02
Boiler AEI-L-499-2 (4.00MMBtu/hr)	0.2	0.2	negligible	0.40	0.34	0.02
Boiler AEI-L-499-3 (4.00 MMBtu/hr)	0.2	0.2	negligible	0.40	0.34	0.02
<b><i>Natural Gas-Fired Water Heater</i></b>						
Water Heater AEI-L-499-4 (1.50 MMBtu/hr)	0.08	0.08	negligible	0.15	0.13	0.01

Visible emissions from any of these units firing distillate fuel shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [06-096 C.M.R. ch. 101]

Visible emissions from any of these units firing propane or natural gas shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [06-096 C.M.R. ch. 101]

The Air Guard facility shall be limited to the equivalent fuel use of 56,000 MMBtu/year of heat input in the boilers and water heater units facility-wide, firing distillate fuel, propane, natural gas, or a combination of these fuels.

Calculations shall be made based on the following fuel heat contents:

- Natural gas: 1,020 Btu/ft<sup>3</sup>
- Propane: 90,500 Btu/gallon
- Distillate fuel: 140,000 Btu/gallon

2. Periodic Monitoring

Periodic monitoring for the boiler shall include recordkeeping to document fuel use both on a monthly and 12-month rolling total basis. Documentation shall include the type of fuel used and sulfur content of the fuel, as applicable.

3. NSPS: 40 C.F.R. Part 60, Subpart Dc

Because each of the Air Guard's boilers has a design heat input of less than 10 MMBtu/hour, the units are not subject to New Source Performance Standards (NSPS) *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hour manufactured after June 9, 1989, 40 C.F.R. Part 60, Subpart Dc.

4. NESHAP: 40 C.F.R. Part 63, Subpart JJJJJ: Propane-Fired Boilers – Natural Gas-Fired Boilers – Natural Gas-Fired Water Heater

The propane-fired and natural gas-fired boilers operated at this facility are not subject to requirements under *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJ. Hot water boilers less than 1.6 MMBtu/hour, such as Water Heater AEI-L-499-4, are exempt from Subpart JJJJJ. In addition, gas-fired boilers are not subject to this Subpart, per 40 C.F.R. § 63.11195 (e). A *gas-fired boiler* is defined by this Subpart as follows [40 C.F.R. § 63.11237]: any boiler that burns gaseous fuels not combined with any solid fuels, and burns liquid fuel only during periods of gas curtailment, gas supply emergencies, or periodic testing on liquid fuel. Periodic testing firing liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

The definition of *gaseous fuels* as found in 40 C.F.R. § 63.11237 includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, hydrogen, and biogas. The definition of *natural gas* as found in § 63.11237 includes liquefied petroleum gas (LPG) and propane. Therefore, the propane-fired boilers and natural gas-fired boilers operated at this Air Guard facility are considered gas-fired boilers under NESHAP Subpart JJJJJ and are not subject to requirements under this Subpart.

5. NESHAP: 40 C.F.R. Part 63, Subpart JJJJJ: Distillate Fuel-Fired Boilers

The distillate fuel-fired boilers are subject to 40 C.F.R. Part 63, Subpart JJJJJ. The units are considered existing oil boilers rated less than 10 MMBtu/hour each.

A summary of the currently applicable federal 40 C.F.R. Part 63, Subpart JJJJJ requirements is listed below. At this time, the Department has not taken delegation of this area source MACT (Maximum Achievable Control Technology) rule promulgated by EPA; however, the Air Guard is still subject to applicable requirements of the Subpart. Notification forms and additional rule information can be found on the following website: <http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.

a. Compliance Dates, Notifications, and Work Practice Requirements

(1) Initial Notification of Compliance

An Initial Notification submittal to EPA was due no later than January 20, 2014. [40 C.F.R. § 63.11225(a)(2)]

(2) Boiler Tune-Up Program

(i) A boiler tune-up program shall be implemented. [40 C.F.R. § 63.11223]

(ii) Because each boiler at this facility which is subject to this regulation has a heat input capacity less than 5 MMBtu/hour, a tune-up on each unit shall be conducted every five years. [40 C.F.R. § 63.11223(a) and Table 2]

(iii) The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

(a) 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 72 months from the previous inspection for oil-fired boilers less than 5 MMBtu/hour. [40 C.F.R. § 63.11223(b)(1)]

(b) 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)]

(c) 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 72 months from the previous inspection for oil-fired boilers less than 5 MMBtu/hour. [40 C.F.R. § 63.11223(b)(3)]

(d) Optimize total emissions of CO, consistent with the manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]

(e) 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)]

(f) 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 and, if requested, submitted to EPA. The report shall contain the following information:

- (a) The concentration of CO (ppmv) and of oxygen (volume %) in the effluent stream, measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
- (b) A description of any corrective actions taken as part of the tune-up of the boiler; and
- (c) 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. For units sharing a fuel meter, the report may utilize an estimate of the fuel used by each unit.

[40 C.F.R. § 63.11223(b)(6)]

(v) After conducting the initial boiler tune-up, a Notification of Compliance Status was 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(b)]

(3) Compliance Report: [40 C.F.R. § 63.11225(b)]

A compliance report shall be prepared by March 1<sup>st</sup> of every fifth calendar year which covers the previous five calendar years. The report shall be maintained by the source and submitted to the Department and to the EPA upon request. The report must include the items contained in 40 C.F.R. § 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 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:
  - (a) "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."
  - (b) "No secondary materials that are solid waste were combusted in any affected unit."
  - (c) "This facility complies with the requirement in 40 C.F.R. §§ 63.11214(d) to conduct a tune-up of each applicable boiler according to 40 C.F.R. § 63.11223(b)."

b. Recordkeeping [40 C.F.R. § 63.11225(c)]

Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJ including the following:

- (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 each 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.

C. Emergency Generators and Fire Pump Engines

The Air Guard operates several emergency generators, listed as follows. The emergency generators are generator sets, with each gen set consisting of an engine and an electrical generator. All of the emergency generators fire distillate fuel with a maximum fuel sulfur content of 0.0015% by weight.

**Emergency Generators**

AEI-L-002	AEI-L-104	AEI-L-112 (new)	AEI-L-121
AEI-L-019	AEI-L-105	AEI-L-113	AEI-L-123
AEI-L-033	AEI-L-106	AEI-L-114	AEI-L-124
AEI-L-034	AEI-L-107	AEI-L-115	AEI-L-125
AEI-L-043	AEI-L-108	AEI-L-116	AEI-L-126
AEI-L-101	AEI-L-109	AEI-L-117	AEI-L-127 (new)
AEI-L-102	AEI-L-110 (new)	AEI-L-118	AEI-L-128 (new)
AEI-L-103 (new)	AEI-L-111	AEI-L-120	AEI-L-129 (new)

The Air Guard also operates three fire pumps. The fire pumps have engines rated at 3.43 MMBtu/hour each and fire distillate fuel with a maximum fuel sulfur content of 0.0015% by weight.

**Emergency Fire Pump Engines**

Fire Pump AEI-L-003  
Fire Pump AEI-L-004  
Fire Pump AEI-L-005

The emergency generators and emergency fire pump engines are subject to different federal regulations, based on their rated input capacities and dates of manufacture, as specified in the following table. In the following table, ZZZZ represents 40 C.F.R. Part 63, Subpart ZZZZ; and IIII represents 40 C.F.R. Part 60, Subpart IIII.

Equipment	Max. Capacity (MMBtu/hour)	Date of Manufacture	Applicable Requirements?	
			Fed	Why?
<b>Emergency Generators</b>				
AEI-L-002	3.67	1984	ZZZZ	Existing, constructed before 6/12/06
AEI-L-019	0.77	2003		
AEI-L-033	0.55	1987		
AEI-L-034	0.77	1998		
AEI-L-043	0.77	2007	III	Manuf. after 4/1/2006
AEI-L-101	0.73	2010		
AEI-L-102	2.33	2010		
AEI-L-103 (new)	To be determined	2015		
AEI-L-104	3.67	2010		
AEI-L-105	0.84	1-16-2006	ZZZZ	Existing, constructed before 6/12/06
AEI-L-106	0.73	2010	III	Manuf. after 4/1/2006
AEI-L-107	1.60	2004	ZZZZ	Existing, constructed before 6/12/06
AEI-L-108	0.73	2010	III	Manuf. after 4/1/2006
AEI-L-109	0.96	1986	ZZZZ	Existing, constructed before 6/12/06
AEI-L-110 (new)	2.66	2001		
AEI-L-111	7.33	2011	III	Manuf. after 4/1/2006
AEI-L-112 (new)	3.67	2010		
AEI-L-113	4.21	1984	ZZZZ	Existing, constructed before 6/12/06
AEI-L-114	4.21	1984		
AEI-L-115	0.90	1999		
AEI-L-116	1.60	1997		
AEI-L-117	1.16	2008	III	Manuf. after 4/1/2006
AEI-L-118	5.51	1998	ZZZZ	Existing, constructed before 6/12/06
AEI-L-120	0.73	2010	III	Manuf. after 4/1/2006
AEI-L-121	0.53	2003	ZZZZ	Existing, constructed before 6/12/06
AEI-L-123	3.67	2010	III	Manuf. after 4/1/2006
AEI-L-124	0.89	1-16-2006	ZZZZ	Existing, constructed before 6/12/06
AEI-L-125	0.81	2012	III	Manuf. after 4/1/2006
AEI-L-126	0.81	2012		
AEI-L-127 (new)	3.14	2013		
AEI-L-128 (new)	0.71	2015		
AEI-L-129 (new)	0.50	2015		

Equipment	Max. Capacity (MMBtu/hour)	Date of Manufacture	Applicable Requirements?	
			Fed	Why?
<b>Fire Pump Engines</b>				
Fire Pump AEI-L-003	3.43	1994	N/A <sup>7</sup>	Existing, constructed before 6/12/06
Fire Pump AEI-L-004	3.43			
Fire Pump AEI-L-005	3.43			

1. BACT/BPT Findings

Distillate Fuel-Fired Generators and Engines greater than 431 kW (600 hp)

AEI-L-111 (subject to 40 C.F.R. Part 60, Subpart IIII)

AEI-L-118 (subject to 40 C.F.R. Part 63, Subpart ZZZZ)

The BACT/BPT emission limits for the generators and engines with an output capacity greater than 431 kW (600 hp) are based on the following:

Pollutant	Emission Factor	Source of Emission Factor
PM, PM <sub>10</sub>	0.12 lb/MMBtu	06-096 C.M.R. ch. 103
SO <sub>2</sub>	0.0015 lb/MMBtu	combustion of distillate fuel with a max. sulfur content of 15 ppm (0.0015% sulfur by weight)
NO <sub>x</sub>	3.2 lb/MMBtu	AP-42 Table 3.4-1 (10/96)
CO	0.85 lb/MMBtu	
VOC	0.09 lb/MMBtu	

The BACT/BPT emission limits for these generators are the following:

Unit	PM (lb/MMBtu)	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator AEI-L-111 (7.33 MMBtu/hr)	0.12	0.88	0.88	0.01	23.46	6.23	0.66
Generator AEI-L-118 (5.51 MMBtu/hr)	0.12	0.66	0.66	0.01	17.63	4.68	0.50

<sup>7</sup> The three emergency fire pump engines were manufactured before the applicability date of NSPS regulation 40 C.F.R. Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, and are thus not subject to this Subpart.

The three emergency fire pump engines are considered non-road, as opposed to stationary, engines, since they are portable and may be moved to various sites. Therefore, the emergency fire pumps are not subject to 40 C.F.R. Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*. The definition in 40 C.F.R. § 1068.30 states that a non-road engine is an internal combustion engine that meets certain criteria, including: "Portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform."



Distillate Fuel-Fired Generators and Engines less than 431 kW (600 hp)

(subject to 40 C.F.R. Part 60, Subpart III)

AEI-L-043	AEI-L-108	AEI-L-126
AEI-L-101	AEI-L-112	AEI-L-127
AEI-L-102	AEI-L-117	AEI-L-128
AEI-L-103	AEI-L-120	AEI-L-129
AEI-L-104	AEI-L-123	
AEI-L-106	AEI-L-125	

(subject to 40 C.F.R. Part 63, Subpart ZZZZ)

AEI-L-002	AEI-L-107	AEI-L-115
AEI-L-019	AEI-L-109	AEI-L-116
AEI-L-033	AEI-L-110	AEI-L-121
AEI-L-034	AEI-L-113	AEI-L-124
AEI-L-105	AEI-L-114	

(Fire Pumps)

AEI-L-003
AEI-L-004
AEI-L-005

The BACT/BPT emission limits for these generators and engines with an output capacity *less than* 431 kW (600 hp) are based on the following:

<u>Pollutant</u>	<u>Emission Factor</u>	<u>Source of Emission Factor</u>
PM, PM <sub>10</sub>	0.12 lb/MMBtu for units ≥ 3.0 MMBtu/hour	06-096 C.M.R. ch. 103 (2)(B)(1)(a)
	0.31 lb/MMBtu for units < 3.0 MMBtu/hour	AP-42 Table 3.3-1 (10/96)
SO <sub>2</sub>	0.0015 lb/MMBtu	combustion of distillate fuel with a max. sulfur content of 15 ppm (0.0015% sulfur by weight)
NO <sub>x</sub>	4.41 lb/MMBtu	AP-42 Table 3.3-1 (10/96)
CO	0.95 lb/MMBtu	
VOC	0.36 lb/MMBtu	

The BACT/BPT emission limits for the generators and engines are identified in the tables below. Because of the quantity of units, the units were grouped by size, and the calculated lb/hour emission limits for the largest rated unit in each group was used as the basis for these limits for each unit.

For the distillate fuel-fired generators with rated input capacity between 0.5 and 0.85 MMBtu/hour, the following emission limits shall apply to each unit:

<b>Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
Generator AEI-L-129 (0.5 MMBtu/hr)	0.26	0.26	0.001	3.70	0.80	0.30
Generator AEI-L-121 (0.53 MMBtu/hr)						
Generator AEI-L-033 (0.55 MMBtu/hr)						
Generator AEI-L-128 (0.71 MMBtu/hr)						
Generator AEI-L-101						
Generator AEI-L-106						
Generator AEI-L-108						
Generator AEI-L-120 (0.73 MMBtu/hr each)						
Generator AEI-L-019						
Generator AEI-L-034						
Generator AEI-L-043 (0.77 MMBtu/hr each)						
Generator AEI-L-125						
Generator AEI-L-126 (0.81 MMBtu/hr each)						
Generator AEI-L-105 (0.84 MMBtu/hr)						

For the distillate fuel-fired generators with rated input capacity between 0.89 and 1.6 MMBtu/hour, the following emission limits shall apply to each unit:

<b>Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
Generator AEI-L-124 (0.89 MMBtu/hr)	0.50	0.50	0.002	7.06	1.52	0.58
Generator AEI-L-115 (0.9 MMBtu/hr)						
Generator AEI-L-109 (0.96 MMBtu/hr)						
Generator AEI-L-117 (1.16 MMBtu/hr)						
Generator AEI-L-002 (1.56 MMBtu/hr)						
Generator AEI-L-107						
Generator AEI-L-116 (1.6 MMBtu/hr each)						

For the distillate fuel-fired generators with rated input capacity between 2.33 and 2.66 MMBtu/hour, the following emission limits shall apply to each unit:

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator AEI-L-102 (2.33 MMBtu/hr)	0.82	0.82	0.004	11.73	2.53	0.96
Generator AEI-L-110 (2.66 MMBtu/hr)						

For the distillate fuel-fired generators with rated input capacity between 3.14 and 4.21 MMBtu/hour, the following emission limits shall apply to each unit:

Unit	PM (lb/MMBtu)	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator AEI-L-127 (3.14 MMBtu/hr)	0.12	0.51	0.51	0.006	18.57	4.00	1.52
Generator AEI-L-104							
Generator AEI-L-112							
Generator AEI-L-123 (3.67 MMBtu/hr each)							
Generator AEI-L-113							
Generator AEI-L-114 (4.21 MMBtu/hr each)							

For the distillate fuel-fired Fire Pump engines, the following emission limits shall apply to each unit:

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
<u>Fire Pump Engines</u> AEI-L-003 AEI-L-004 AEI-L-005 (3.43 MMBtu/hr each)	0.41	0.41	0.005	15.13	3.26	1.23

Visible emissions from each of the distillate fuel-fired emergency generators and fire pump engines shall not exceed 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period. [06-096 C.M.R. ch. 101 (2)(B)(1)(d)]

Each of the fire pump engines shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. **There is no time limit on the use of emergency engines in emergency situations.** Each fire pump engine shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, the Air Guard shall keep

records of the total hours of operation and the number of hours of emergency operation for each fire pump unit.

Fire pump engines are only to be operated for maintenance and testing purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source.

2. Emergency Engine Designation and Operating Criteria

Federal regulations which may be applicable to the emergency generators at this facility are NSPS 40 C.F.R. Part 60, Subpart IIII and NESHAP 40 C.F.R. Part 63, Subpart ZZZZ. The NSPS subpart provides a definition for Emergency stationary internal combustion engines (ICE), and the NESHAP subpart provides a definition for emergency stationary reciprocating internal combustion engines (RICE). With the exception of the acronyms ICE vs. RICE, the definitions are identical. Operation of an engine outside of the criteria specified below may cause the engine to no longer be considered an emergency engine under these subparts, as applicable, which may result in the engine being subject to requirements applicable to **non-emergency** engines. [40 C.F.R. Part 60, Subpart IIII at 40 C.F.R. § 60.4211(f) and § 60.4219; 40 C.F.R. Part 63, Subpart ZZZZ]

a. 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.

b. 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.

- (1) 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 RICE more than 100 hours per calendar year.

- (2) 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, non-emergency 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, unless:

- (i) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
- (ii) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- (iii) The dispatch follows reliability, emergency operation or similar protocols that follow specific North American Electric Reliability Corporation (NERC), regional, state, public utility commission, or local standards or guidelines.
- (iv) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (v) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission, or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

3. New Source Performance Standards (NSPS): 40 C.F.R. Part 60, Subpart III

The federal regulation 40 C.F.R. Part 60, Subpart III, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)*, is applicable to the following emergency engines, since the units were ordered after July 11, 2005, and manufactured after April 1, 2006.

AEI-L-043	AEI-L-106	AEI-L-120	AEI-L-128
AEI-L-101	AEI-L-108	AEI-L-123	AEI-L-129
AEI-L-102	AEI-L-111	AEI-L-125	
AEI-L-103	AEI-L-112	AEI-L-126	
AEI-L-104	AEI-L-117	AEI-L-127	

By meeting the requirements of Subpart III, the units 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. Part 60, Subpart III Requirements

a. Manufacturer Certification Requirement

The engines subject to this Subpart shall be certified by the manufacturer as meeting the emission standards for new non-road compression ignition engines found in 40 C.F.R. § 60.4202. [40 C.F.R. § 60.4205(b)]

b. Ultra-Low Sulfur Fuel Requirement

The distillate fuel fired in the generators shall not exceed 15 ppm sulfur (0.0015% sulfur by weight), 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)]

c. Non-Resettable Hour Meter Requirement

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

d. Operation and Maintenance Requirements

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

e. Annual Time Limit for Maintenance and Testing

The generators shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency 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 unless the conditions in § 60.4211(f)(3)(i) are met). [40 C.F.R. § 60.4211(f)]

f. Initial Notification Requirement

No initial notification is required for emergency engines. [40 C.F.R. § 60.4214(b)]

g. Recordkeeping

The Air Guard shall keep records that include maintenance conducted on each engine and the hours of operation of each engine recorded from the non-resettable hour meter. Documentation shall include the number of hours each unit operated

for emergency purposes, including what classified the operation as emergency, and the number of hours each unit operated for non-emergency purposes.

h. Annual Reporting Requirements for Demand Response Availability Over 15 Hours Per Year

Each of these generators is rated at greater than 100 brake hp and therefore subject to the following annual reporting requirements:

AEI-L-102	AEI-L-112	AEI-L-127
AEI-L-104	AEI-L-117	
AEI-L-111	AEI-L-123	

If the Air Guard operates or is contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during periods 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. § 60.4211(f)(3)(i), the facility shall submit an annual report containing the information in 40 C.F.R. § 60.4214(d)(1)(i) through (vii). The annual report for each calendar year must be submitted no later than March 31<sup>st</sup> of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

Director, Office of Ecosystem Protection  
U.S. Environmental Protection Agency  
5 Post Office Square, Suite 100  
Boston, MA 02109-3912

[40 C.F.R. § 60.4214(d)]

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

The federal regulation 40 C.F.R. Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines* is applicable to the following emergency engines:

AEI-L-002	AEI-L-107	AEI-L-116
AEI-L-019	AEI-L-109	AEI-L-118
AEI-L-033	AEI-L-110	AEI-L-121
AEI-L-034	AEI-L-113	AEI-L-115
AEI-L-105	AEI-L-114	AEI-L-124

The units are considered existing, emergency stationary reciprocating internal combustion engines at an area HAP source and are not subject to NSPS regulations. EPA's August 9, 2010 memo, *Guidance Regarding Definition of Residential,*

*Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*, specifically does not exempt these units from the federal requirements.

These units shall be limited to the usage outlined in 40 C.F.R. § 63.6640(f) and therefore classified as existing emergency stationary RICE as defined in 40 C.F.R. Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in 40 C.F.R. § 63.6640(f) may cause any of these engines to not be considered an emergency engine and therefore subject to all requirements for a non-emergency engine.

The following sections identify 40 C.F.R. Part 63, Subpart ZZZZ requirements.

a. Operation and Maintenance Requirements [40 C.F.R. § 63.6603(a) and Table 2(d)]

For each unit, the Air Guard shall comply with the following:

- (1) Change oil and filter every 500 hours of operation or annually, whichever comes first;
- (2) Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and
- (3) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Each generator shall be operated and maintained according to the manufacturer's emission-related written instructions, or the Air Guard shall develop a maintenance plan which provides to the extent practicable for the maintenance and operation of each engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]

b. Optional Oil Analysis Program

The Air Guard has the option of utilizing an oil analysis program which complies with the requirements of 40 C.F.R. § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, the Air Guard must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for the engines. [40 C.F.R. § 63.6625(i)]

c. Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 63.6625(f)]

d. Startup Idle and Startup Time Minimization Requirements

During periods of startup, the facility must minimize each engine's time spent at idle and minimize each engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 C.F.R. § 63.6625(h) and 40 C.F.R. Part 63, Subpart ZZZZ Table 2d]



e. Annual Time Limit for Maintenance and Testing

Each generator shall be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations. (This does not include peak shaving, non-emergency 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 unless the conditions in 40 C.F.R. § 63.6640(f)(4)(ii) are met.) [40 C.F.R. § 63.6640(f)]

f. Recordkeeping Requirements

The Air Guard shall keep records that include maintenance conducted on each generator and engine and the hours of operation of each unit recorded through its non-resettable hour meter. Documentation for each unit shall include the number of hours each unit operated for emergency purposes, including what classified the operation as emergency, and the number of hours each unit operated for non-emergency purposes.

If one or more generators is operated during a period of demand response or deviation from standard voltage or frequency, or to supply 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), the Air Guard shall keep records of the notification of the emergency situation, and the date, start time, and end time of operation for these purposes. [40 C.F.R. § 63.6655(e) and (f)]

g. Requirements for Demand Response Availability Over 15 Hours Per Year

The following annual reporting requirements apply to the following generators, because each is greater than 100 brake hp:

AEI-L-002	AEI-L-110	AEI-L-115
AEI-L-107	AEI-L-113	AEI-L-116
AEI-L-109	AEI-L-114	AEI-L-118

If the Air Guard operates or is contractually obligated to be available for more than 15 hours per calendar year 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), the facility shall comply with the following requirements:

The facility shall submit an annual report containing the information in 40 C.F.R. § 63.6650(h)(1)(i) through (ix). The annual report for each calendar year must be submitted no later than March 31<sup>st</sup> of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI), accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form is not

available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

Director, Office of Ecosystem Protection  
U.S. Environmental Protection Agency  
5 Post Office Square, Suite 100  
Boston, MA 02109-3912

[40 C.F.R. § 63.6650(h)]

#### D. Paint Booth

There is one Paint Booth currently in service, located in Building 499. The Paint Booth has the potential to emit particulate matter (PM, PM<sub>10</sub>, PM<sub>2.5</sub>), volatile organic compounds (VOC), and hazardous air pollutants (HAP) as defined in the Clean Air Act and in *Definitions*, 06-096 C.M.R. ch. 100. The Paint Booth is equipped with an exhaust fan with polyester pre-filters and a primary filter in the exhaust duct to collect paint particulates from the paint spraying process and minimize particulate emissions from the process. Based on the safety data sheets (SDS) for each coating applied and the estimated number of gallons used, an average yearly total of 3,400 lb of VOC emissions from this process per year was calculated.

##### 1. Particulate Emissions

The Air Guard shall comply with the following as BPT for particulate emissions from the Paint Booth operation:

- a. When spray application of paint is occurring, operate the exhaust fan and keep the paint spray room doors closed.
- b. Properly maintain the spray booth, including conducting frequent inspections of the blower equipment and the spray booth filter pads.
- c. Immediately clean up any spilled or excess coating material.
- d. Maintain a record of spray booth inspections, maintenance, failures, and corrective actions.

[06-096 C.M.R. ch. 115, BPT]

##### 2. VOC Emissions

The Air Guard facility is not subject to either 40 C.F.R. Part 63, Subpart GG or to 06-096 C.M.R. ch. 129. Maine regulation *Surface Coating Facilities*, 06-096 C.M.R. ch. 129 (last amended March 3, 1998), contains requirements for Aerospace Manufacturing and Rework Facilities which are the requirements of *National Emission Standards for Aerospace Manufacturing and Rework Facilities*, 40 C.F.R. Part 63, Subpart GG, incorporated by reference. Section

40 C.F.R. § 63.741 (a) of Subpart GG specifies applicability of the Subpart to major [HAP] sources. The Air Guard facility is not a major HAP source, and as such, is not subject to either of these regulations.

3. HAP Emissions

The Air Guard shall not exceed a total annual HAP emission limit of 9.9 tons per year on a 12-month rolling total basis. [A-627-71-G-R/A (May 14, 2010), BPT]

4. Compliance Demonstration

To demonstrate compliance with VOC and HAP emissions limits, the Air Guard shall maintain records of coatings used and corresponding VOC and HAP emissions. The record shall include VOC and HAP emissions calculations based on material usage and VOC and HAP content of the material. The record shall also include dates of coating operations, type of coatings used, volume of coatings used, and VOC and HAP content of the coatings based on purchase receipts and SDS. The record shall be maintained on a monthly and a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]

E. De-Icing and Anti-Icing Operations

The Air Guard uses approximately 25,000 to 35,000 gallons per winter of propylene glycol-based anti-icing deicer fluid (ADF). During contingency operations, the facility may use substantially more ADF. Propylene glycol (CAS No. 57-55-6) is a VOC but not a HAP. Based on US EPA publication *Preliminary Data Summary of Airport Deicing Operations (Revised)* dated August 2000, the emission factor for VOC emissions from deicing operations is 16.1 lb VOC/10,000 gallons of ADF dispensed. VOC emissions from this process are included in the facility's overall VOC emission limit of 30 tons per year. [A-627-71-G-R/A (May 14, 2010), BPT]

F. Parts Washers

The two parts washers at this facility were installed in 2012 have a design capacity of 15 gallons each. The parts washers are subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130 (as amended), and records shall be kept documenting compliance.

G. Fuel Storage Tanks

The primary mission for the Air Guard is to stage aerial refueling missions. As such, substantial quantities of fuel flow from tank trucks to storage tanks and back out to aircraft either by a hydrant network or by tanker truck. These on-site transfers are stationary sources for volatile organic compounds and are included in the emissions caps established in the license. The base delivers over 12,000,000 gallons per year of Jet-A aviation fuel on average, and during contingencies can deliver much greater quantities.

The fuel storage tanks identified in the following table have capacities greater than the licensing threshold capacity of 10,000 gallons.

<u>Tank</u>	<u>Capacity (gallons)</u>	<u>Material Stored</u>	<u>Tank Type</u>	<u>Tank Size (height) x (diameter)</u>	<u>Installation Year</u>
AO11	420,000 (1,589.9 m <sup>3</sup> )	Jet A Fuel	Above ground, steel, with floating roof	39 ft x 43.5 ft	1994
AO12	420,000 (1,589.9 m <sup>3</sup> )			39 ft x 43.5 ft	1994

The Air Guard shall conduct monthly external, visual inspections of the floating roofs and closure seals and perform maintenance as necessary so as to prevent vapor leakage. If any holes, tears, or other openings are detected which are not part of the design for minimizing vapor leakage, the facility shall initiate repairs as soon as practicable, but no later than 15 calendar days from the initial detection of the leak. [06-096 C.M.R. ch. 115, BPT]

To minimize VOC emissions, the Air Guard will maintain the submerged fill pipe to within six inches of the bottom of the stationary fuel storage tank for refilling both fuel storage tanks and minimize fugitive VOC emissions from accidental spills by maintaining the installed tanker truck spill containment system. These requirements, along with the overall 30 tons per year (12-month rolling total basis) VOC limit for the facility's stationary sources and periodic inspection of the floating roofs and seals and maintenance as needed, meet the requirements of BPT for the facility's non-combustion VOC emissions sources. The Air Guard shall maintain records of all fuel fillings from which to calculate VOC emissions associated with the process. EPA's TANKS program or other method approved by the Department shall be used to calculate VOC emissions from the fuel tanks and fuel transfers. [A-627-71-G-R/A (May 14, 2010), BPT]

1. NSPS: 40 C.F.R. Part 60, Subpart Kb

The two Air Guard tanks are not subject to NSPS requirements. Federal regulation *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*, NSPS 40 C.F.R. Part 60, Subpart Kb, applies to such storage vessels with a capacity greater than or equal to 75 cubic meters. Section § 60.110b (b) states that this subpart does not apply to storage vessels with a capacity greater than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa). According to EPA's AP-42, Table 7.1-2 (11/06), jet kerosene has a maximum true vapor pressure ranging from 0.0041 psi (0.0283 kPa) @ 40 °F to 0.029 psi (0.20 kPa) @ 100 °F, well below the threshold values of this Subpart. Thus, these two Air Guard tanks are not subject to 40 C.F.R. Part 60, Subpart Kb. [40 C.F.R. Part 60, Subpart Kb, § 60.110b (b)]

2. Maine Regulation *Petroleum Liquid Storage Vapor Control*, 06-096 C.M.R. ch. 111

There are no petroleum liquid storage tanks at this Air Guard facility subject to this rule, since the true vapor pressure of the stored liquid is below the threshold true vapor pressure applicability values cited in this regulation. [06-096 C.M.R. ch. 111 (1)(B) and (C)]

H. Fugitive Emissions

Visible emissions from any fugitive emission source at this facility, including stockpiles and roadways, shall not exceed 20% opacity, except for no more than five minutes in any one-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any one hour.

I. General Process Emissions

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period.

J. Annual Emissions

1. Total Annual Emissions

The Air Guard shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on the following:

- the equivalent fuel use of 56,000 MMBtu/year of heat input in the boilers and water heater units facility-wide, firing distillate fuel, propane, natural gas, or a combination of these fuels, using the worst case scenario for each pollutant
- 100 hours/year of operation for each emergency generator and fire pump
- a facility-wide cap of 30 tons/year of total VOC emissions
- a facility-wide cap of 9.9 tons/year of total HAP emissions

**Total Licensed Annual Emissions for the Facility**

**Tons/year**

(used to calculate the annual license fee)

	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>
Boilers	2.24	2.24	0.04	4.00	2.30	0.31
Emergency Generators and Fire Pumps	0.06	0.06	negligible	2.27	0.49	0.18
Process Emissions	--	--	--	--	--	29.5
<b>Total TPY</b>	<b>2.3</b>	<b>2.3</b>	<b>0.1</b>	<b>6.3</b>	<b>2.8</b>	<b>30.0</b>

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 (as amended), 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 (CO<sub>2</sub>e).

The quantity of CO<sub>2</sub>e 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 40 C.F.R. Part 98, *Mandatory Greenhouse Gas Reporting*; 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:

<b>Pollutant</b>	<b>Tons/Year</b>
PM <sub>10</sub>	25
SO <sub>2</sub>	50
NO <sub>x</sub>	50
CO	250

The total licensed annual emissions for the facility are below the emission levels contained in the table above, and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license.

**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-627-71-J-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 and Water Heater**

**A. Fuel**

1. The Air Guard facility shall be limited to the equivalent fuel use of 56,000 MMBtu/year of heat input in the boilers and water heater units facility-wide, firing distillate fuel, propane, natural gas, or a combination of these fuels. Calculations shall be made based on the following fuel heat contents:

Natural gas: 1,020 Btu/ft<sup>3</sup>  
 Propane 90,500 Btu/gallon  
 Distillate fuel: 140,000 Btu/gallon

[06-096 C.M.R. ch. 115, BPT]

2. Distillate fuel fired at the facility shall have a maximum sulfur content of 0.0015% by weight (15 ppm). [06-096 C.M.R. ch. 115, BPT]
3. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the sulfur content of the fuel delivered, as applicable. 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]

**B. Emissions shall not exceed the following:**

Unit	Pollutant	lb/MMBtu	Authority
Boiler AEI-L-417-2	PM	0.12	06-096 C.M.R. ch. 103 (2)(B)(1)(a); applicable to units larger than 3.0 MMBtu/hour
Boiler AEI-L-542-1			
Boiler AEI-L-499-1			
Boiler AEI-L-499-2			
Boiler AEI-L-499-3			

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

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
<b>Distillate Fuel-Fired Boilers</b>						
Boiler AEI-L-416-1 (1.81 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-417-1 (1.81 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-417-2 (4.8 MMBtu/hr)	0.38	0.38	0.007	0.7	0.09	0.006
Boiler AEI-L-423-1 (1.78 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-486-2 (1.78 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002

<b>Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
Boiler AEI-L-489-1 (1.37 MMBtu/hr)	0.11	0.11	0.002	0.20	0.03	0.002
Boiler AEI-L-491-1 (1.37 MMBtu/hr)	0.11	0.11	0.002	0.20	0.03	0.002
Boiler AEI-L-510-1 (1.08 MMBtu/hr)	0.09	0.09	0.002	0.16	0.02	0.001
Boiler AEI-L-510-2 (1.08 MMBtu/hr)	0.09	0.09	0.002	0.16	0.02	0.001
Boiler AEI-L-512-1 (1.78 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-513-1 (2.71 MMBtu/hr)	0.22	0.22	0.004	0.40	0.05	0.003
Boiler AEI-L-515-1 (1.78 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-515-2 (1.78 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-518-1 (1.78 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-518-2 (1.78 MMBtu/hr)	0.14	0.14	0.003	0.26	0.03	0.002
Boiler AEI-L-532-1 (2.71 MMBtu/hr)	0.22	0.22	0.004	0.40	0.05	0.003
Boiler AEI-L-541-1 (1.51 MMBtu/hr)	0.12	0.12	0.002	0.22	0.03	0.002
Boiler AEI-L-542-1 (4.8 MMBtu/hr)	0.38	0.38	0.007	0.35	0.09	0.006
<b><i>Propane-Fired Boilers</i></b>						
Boiler AEI-L-488-1 (1.36 MMBtu/hr)	0.003	0.003	negligible	0.19	0.11	0.015
Boiler AEI-L-488-2 (1.00 MMBtu/hr)	0.002	0.002	negligible	0.14	0.08	0.001
<b><i>Propane-Fired Boilers, Continued</i></b>						
Boiler AEI-L-488-3 (1.00 MMBtu/hr)	0.002	0.002	negligible	0.14	0.08	0.001
Boiler AEI-L-488-4 (1.00 MMBtu/hr)	0.002	0.002	negligible	0.14	0.08	0.001
<b><i>Natural Gas-Fired Boilers</i></b>						
Boiler AEI-L-420-1 (1.23 MMBtu/hr)	0.06	0.06	negligible	0.12	0.10	0.01
Boiler AEI-L-493-1 (1.00 MMBtu/hr)	0.05	0.05	negligible	0.10	0.08	0.005
Boiler AEI-L-499-1 (4.00 MMBtu/hr)	0.2	0.2	negligible	0.40	0.34	0.02

<b>Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
Boiler AEI-L-499-2 (4.00MMBtu/hr)	0.2	0.2	negligible	0.40	0.34	0.02
Boiler AEI-L-499-3 (4.00 MMBtu/hr)	0.2	0.2	negligible	0.40	0.34	0.02
<b><i>Natural Gas-Fired Water Heater</i></b>						
Water Heater AEI- L-499-4 (1.50 MMBtu/hr)	0.08	0.08	negligible	0.15	0.13	0.01

- D. Visible emissions from any of the above units firing distillate fuel shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three hour period. [06-096 C.M.R. ch. 101]
- E. Visible emissions from any of the above units firing propane or natural gas shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three hour period. [06-096 C.M.R. ch. 101]
- F. NESHAP: 40 C.F.R. Part 63, Subpart JJJJJ: Requirements for Distillate Fuel-Fired Boilers [incorporated under 06-096 C.M.R. ch. 115, BPT]
1. The facility shall implement a boiler tune-up program. [40 C.F.R. § 63.11223]
    - a. Because each boiler at this facility which is subject to this regulation has a heat input capacity less than 5 MMBtu/hour, a tune-up on each unit shall be conducted every five 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 72 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 72 months from the previous inspection. [40 C.F.R. § 63.11223(b)(3)]
      - (4) Optimize total emissions of CO, consistent with the 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 (ppmv) and of oxygen (volume %) in the effluent stream, 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. For units sharing a fuel meter, the report may utilize an estimate of the fuel used by each unit.

[40 C.F.R. § 63.11223(b)(6)]

## 2. Compliance Report

A compliance report shall be prepared by March 1<sup>st</sup> of every fifth calendar year which covers the previous five calendar years. The report shall be maintained by the source and submitted to the Department and to the EPA upon request. The report must include the items contained in 40 C.F.R. § 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 40 C.F.R. §§ 63.11214(d) to conduct a tune-up of each applicable boiler according to 40 C.F.R. § 63.11223(b)."

3. Recordkeeping

Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJ 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.

(17) **Emergency Generators and Fire Pump Engines**

- A. Each of the emergency generators shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 115]
- B. The distillate fuel sulfur content for each emergency generator and fire pump 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]
- C. Emissions shall not exceed the following:

<b>Unit</b>	<b>Pollutant</b>	<b>lb/MMBtu</b>	<b>Origin and Authority</b>
Generator AEI-L-111 (7.33 MMBtu/hr)	PM	0.12	06-096 C.M.R. ch. 103(2)(B)(1)(a)
Generator AEI-L-118 (5.51 MMBtu/hr)			
Generator AEI-L-127 (3.14 MMBtu/hr)			
Generator AEI-L-104			
Generator AEI-L-112			
Generator AEI-L-123 (3.67 MMBtu/hr each)			
Generator AEI-L-113			
Generator AEI-L-114 (4.21 MMBtu/hr each)			

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

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator AEI-L-111 (7.33 MMBtu/hr)	0.88	0.88	0.01	23.46	6.23	0.66
Generator AEI-L-118 (5.51 MMBtu/hr)	0.66	0.66	0.01	17.63	4.68	0.50

For the distillate fuel-fired generators with rated input capacity between 0.5 and 0.85 MMBtu/hour, the following emission limits shall apply to each unit:

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator AEI-L-129 (0.5 MMBtu/hr)	0.26	0.26	0.001	3.70	0.80	0.30
Generator AEI-L-121 (0.53 MMBtu/hr)						
Generator AEI-L-033 (0.55 MMBtu/hr)						
Generator AEI-L-128 (0.71 MMBtu/hr)						
Generator AEI-L-101 Generator AEI-L-106 Generator AEI-L-108 Generator AEI-L-120 (0.73 MMBtu/hr each)						
Generator AEI-L-019 Generator AEI-L-034 Generator AEI-L-043 (0.77 MMBtu/hr each)	0.26	0.26	0.001	3.70	0.80	0.30
Generator AEI-L-125 Generator AEI-L-126 (0.81 MMBtu/hr each)						
Generator AEI-L-105 (0.84 MMBtu/hr)						

For the distillate fuel-fired generators with rated input capacity between 0.89 and 1.6 MMBtu/hour, the following emission limits shall apply to each unit:

<b>Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
Generator AEI-L-124 (0.89 MMBtu/hr)						
Generator AEI-L-115 (0.9 MMBtu/hr)						
Generator AEI-L-109 (0.96 MMBtu/hr)						
Generator AEI-L-117 (1.16 MMBtu/hr)	0.50	0.50	0.002	7.06	1.52	0.58
Generator AEI-L-002 (1.56 MMBtu/hr)						
Generator AEI-L-107						
Generator AEI-L-116 (1.6 MMBtu/hr each)						

For the distillate fuel-fired generators with rated input capacity between 2.33 and 2.66 MMBtu/hour, the following emission limits shall apply to each unit:

<b>Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
Generator AEI-L-102 (2.33 MMBtu/hr)						
Generator AEI-L-110 (2.66 MMBtu/hr)	0.82	0.82	0.004	11.73	2.53	0.96

For the distillate fuel-fired generators with rated input capacity between 3.14 and 4.21 MMBtu/hour, the following emission limits shall apply to each unit:

<b>Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
Generator AEI-L-127 (3.14 MMBtu/hr)						
Generator AEI-L-104						
Generator AEI-L-112						
Generator AEI-L-123 (3.67 MMBtu/hr each)	0.51	0.51	0.006	18.57	4.00	1.52
Generator AEI-L-113						
Generator AEI-L-114 (4.21 MMBtu/hr each)						



For the distillate fuel-fired Fire Pump engines, the following emission limits shall apply to each unit:

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
<u>Fire Pump Engines</u>						
AEI-L-003						
AEI-L-004	0.41	0.41	0.005	15.13	3.26	1.23
AEI-L-005 (3.43 MMBtu/hr each)						

E. Visible Emissions

Visible emissions from each of the distillate fuel-fired emergency generators and fire pump engines shall not exceed 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period. [06-096 C.M.R. ch. 101 (2)(B)(1)(d)]

F. Fire Pump Engines

Each of the fire pump engines 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 fire pump engine shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, the Air Guard shall keep records of the total hours of operation and the hours of emergency operation for each fire pump unit.

Fire pump engines are only to be operated for maintenance and testing purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. [06-096 C.M.R. ch. 115, BPT]

G. NSPS: 40 C.F.R. Part 60, Subpart III Requirements

Requirements of 40 C.F.R. Part 60, Subpart III are applicable to the following emergency engines:

AEI-L-043	AEI-L-108	AEI-L-125
AEI-L-101	AEI-L-111	AEI-L-126
AEI-L-102	AEI-L-112	AEI-L-127
AEI-L-103	AEI-L-117	AEI-L-128
AEI-L-104	AEI-L-120	AEI-L-129
AEI-L-106	AEI-L-123	

1. Manufacturer Certification Requirement

The engines subject to this Subpart shall be certified by the manufacturer as meeting the emission standards for new non-road 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 distillate fuel fired in the generators shall not exceed 15 ppm sulfur (0.0015% sulfur by weight), 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 each generator engine. [40 C.F.R. § 60.4209(a)]

4. Operation and Maintenance Requirements

The generators shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by Air Guard that are approved by the engine manufacturer. Air Guard 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

The generators shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency 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 unless the conditions in § 60.4211(f)(3)(i) are met). [40 C.F.R. § 60.4211(f)]

6. Recordkeeping

The Air Guard shall keep records that include maintenance conducted on each engine and the hours of operation of each engine recorded from the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, including what classified the operation as emergency, and the number of hours each unit operated for non-emergency purposes.

If one or more generators is operated during a period of demand response or deviation from standard voltage or frequency or to supply power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 C.F.R. § 60.4211(f)(3)(i), the Air Guard shall keep records of the notification of the emergency situation, and the date, start time, and end time of each generator operation for these purposes. [40 C.F.R. § 60.4214(b)]

7. Annual Reporting Requirements for Demand Response Availability Over 15 Hours Per Year

Each of these generators is rated at greater than 100 brake hp and subject to the following annual reporting requirements:

AEI-L-102	AEI-L-117
AEI-L-104	AEI-L-123
AEI-L-111	AEI-L-127
AEI-L-112	

If the Air Guard operates or is contractually obligated to be available for more than 15 hours per calendar year 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. § 60.4211(f)(3)(i), the facility shall submit an annual report containing the information in 40 C.F.R. § 60.4214(d)(1)(i) through (vii). The annual report for each calendar year shall be submitted no later than March 31<sup>st</sup> of the following calendar year. The annual report is to be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report shall be submitted to the following address:

Director, Office of Ecosystem Protection  
U.S. Environmental Protection Agency  
5 Post Office Square, Suite 100  
Boston, MA 02109-3912

[40 C.F.R. § 60.4214(d)]

H. NESHAP: 40 C.F.R. Part 63, Subpart ZZZZ Requirements

The requirements of 40 C.F.R. Part 63, Subpart ZZZZ are applicable to the following emergency engines:

AEI-L-002	AEI-L-107	AEI-L-115
AEI-L-019	AEI-L-109	AEI-L-116
AEI-L-033	AEI-L-110	AEI-L-118
AEI-L-034	AEI-L-113	AEI-L-121
AEI-L-105	AEI-L-114	AEI-L-124

1. Operation and Maintenance Requirements

The Air Guard shall conduct the following for each unit subject to this Subpart:

- a. Change oil and filter every 500 hours of operation or annually, whichever comes first;
- b. Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and

c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.  
[40 C.F.R. § 63.6603(a) and Table 2(d)]

Each generator shall be operated and maintained according to the manufacturer's emission-related written instructions, or the Air Guard shall develop a maintenance plan which provides to the extent practicable for the maintenance and operation of each engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]

2. Optional Oil Analysis Program

The Air Guard has the option of utilizing an oil analysis program which complies with the requirements of 40 C.F.R. § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, the Air Guard shall keep records of the parameters analyzed as part of the program, the results of the analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for the engines. [40 C.F.R. § 63.6625(i)]

3. Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 63.6625(f)]

4. Startup Idle and Startup Time Minimization Requirements

During periods of startup, the facility must minimize each engine's time spent at idle and minimize each engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 C.F.R. § 63.6625(h) and 40 C.F.R. Part 63, Subpart ZZZZ Table 2d]

5. Annual Time Limit for Maintenance and Testing

Each generator shall be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations. (This does not include peak shaving, non-emergency 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 unless the conditions in 40 C.F.R. § 63.6640(f)(4)(ii) are met.) [40 C.F.R. § 63.6640(f)]

6. Recordkeeping Requirements

The Air Guard shall keep records that include maintenance conducted on each generator and engine and the hours of operation of each unit recorded through its non-resettable hour meter. Documentation for each unit shall include the number of hours each unit operated for emergency purposes, including what classified the operation as emergency, and the number of hours each unit operated for non-emergency purposes.

If one or more generators is operated during a period of demand response or deviation from standard voltage or frequency, or to supply 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), the Air Guard shall keep records of the notification of the emergency situation, and the date, start time, and end time of operation for these purposes. [40 C.F.R. § 63.6655(e) and (f)]

7. Requirements for Demand Response Availability Over 15 Hours Per Year (and greater than 100 brake hp)

The following annual reporting requirements apply to the following generators:

AEI-L-002	AEI-L-110	AEI-L-115
AEI-L-107	AEI-L-113	AEI-L-116
AEI-L-109	AEI-L-114	AEI-L-118

If the Air Guard operates or is contractually obligated to be available for more than 15 hours per calendar year 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), the facility shall submit an annual report containing the information in 40 C.F.R. § 63.6650(h)(1)(i) through (ix). The annual report for each calendar year shall be submitted no later than March 31<sup>st</sup> of the following calendar year. The annual report is to be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI), accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report shall be submitted to the following address:

Director, Office of Ecosystem Protection  
U.S. Environmental Protection Agency  
5 Post Office Square, Suite 100  
Boston, MA 02109-3912

[40 C.F.R. § 63.6650(h)]

(18) **Paint Booth** [06-096 C.M.R. ch. 115, BPT]

A. The Air Guard shall comply with the following as BPT for particulate emissions from the Paint Booth operation:

1. Utilize filters to minimize particulate emissions from the painting process whenever the Paint Booth is utilized for paint and/or coating application.
2. When spray application of paint is occurring, operate the exhaust fan and keep the paint spray room doors closed.

3. Properly maintain the spray booth, including conducting frequent inspections of the blower equipment and the spray booth filter pads.
  4. Immediately clean up any spilled or excess coating material.
  5. Maintain a record of spray booth inspections, maintenance, failures, and corrective actions.
- B. The Air Guard shall maintain records of coatings used and corresponding VOC and HAP emissions. Records shall include VOC and HAP emissions calculations based on material usage and VOC and HAP content of the material. The record shall also include dates of coating operations, type of coatings used, volume of coatings used, and VOC and HAP content of the coatings based on purchase receipts and SDS. The record shall be maintained on a monthly and a twelve-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]

(19) **De-Icing and Anti-Icing Operations**

The Air Guard shall document the quantity of deicing and anti-icing operations on a monthly basis. The emission factor of 16.1 lb VOC/10,000 gallons of fluid dispensed shall be used to determine VOC emissions from these operations. The Air Guard shall maintain facility-wide VOC emissions to less than 30 tons per year. [A-627-71-G-R/A (May 14, 2010), BPT]

(20) **Parts Washers** [06-096 C.M.R. ch. 130]

Parts washers at the Air Guard are subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130 (as amended).

- A. The Air Guard shall keep records of the amount of solvent added to each parts washer. [06-096 C.M.R. ch. 115, BPT]
- B. The following are exempt from the requirements of 06-096 C.M.R. ch. 130:
  1. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
  2. Wipe cleaning; and,
  3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.
- C. The following standards apply to cold cleaning machines that are applicable sources under 06-096 C.M.R. ch. 130.
  1. The Air Guard shall attach a permanent and conspicuous label to each unit summarizing the following operational standards:
    - a. Waste solvent shall be collected and stored in closed containers.
    - b. Cleaned parts shall be drained of solvent directly back to the cold cleaning

- machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
- c. Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized, or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
  - d. The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
  - e. Sponges, fabric, wood, leather, paper products, and other absorbent materials shall not be cleaned in the parts washer.
  - f. When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
  - g. Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.
  - h. Work area fans shall not blow across the opening of the parts washer unit.
  - i. The solvent level shall not exceed the fill line.
2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches.

**(21) Fuel Storage Tanks**

The Air Guard shall conduct monthly external, visual inspections of the floating roofs and closure seals and perform maintenance as necessary so as to prevent vapor leakage. If any holes, tears, or other openings are detected which are not part of the design for minimizing vapor leakage, the facility shall initiate repairs as soon as practicable, but no later than 15 calendar days from the initial detection of the leak. Records of inspections and maintenance of the fuel storage tanks shall be maintained by the Air Guard and made available to the Department on request. [06-096 C.M.R. ch. 115, BPT]

The Air Guard shall maintain the submerged fill pipe to within six inches of the bottom of the stationary fuel storage tank for refilling both fuel storage tanks AO11 and AO12 and minimize fugitive VOC emissions from accidental spills by maintaining the installed tanker truck spill containment system. [A-627-71-G-R/A (May 14, 2010), BPT]

Air Guard shall maintain records of all fuel fillings from which to calculate VOC emissions associated with the process. EPA's TANKS program or other method approved by the Department shall be used to calculate VOC emissions from the fuel tanks and fuel transfers. [A-627-71-G-R/A (May 14, 2010), BPT]

(22) **VOC and HAP Facility-Wide Emission Limits** [A-627-71-G-R/A (May 14, 2010), BPT]

Emissions from non-combustion sources at the Air Guard facility, including the Paint Booth, De-Icing and Anti-Icing Operations, and Fuel Storage Tanks, shall not exceed the following:

- A. VOC emissions shall not exceed 30 tons/year, on a 12-month rolling total basis.
- B. Total HAP emissions shall not exceed 9.9 tons/year, on a 12-month rolling total basis.
- C. Compliance shall be demonstrated using records of quantities used of propylene-based anti-icing deicer fluid, paints, and coatings and the VOC and/or HAP content of each as stated in the SDS for each substance.

(23) **Fugitive Emissions**

Visible emissions from a fugitive emission source, including stockpiles and roadways, shall not exceed 20% opacity, except for no more than five minutes in any one-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any one hour. [06-096 C.M.R. ch. 101]

(24) **General Process Emissions**

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period. [06-096 C.M.R. ch. 101]

(25) **Annual Emission Statement**

In accordance with Emission Statements, 06-096 C.M.R. ch. 137 (as amended), 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.



- (26) Air Guard 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 14 DAY OF February, 2017.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Paul Mercer  
PAUL MERCER, COMMISSIONER

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

[Note: If a renewal application, determined as complete by the Department, is submitted prior to expiration of this license, then pursuant to Title 5 M.R.S. § 10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 4, 2015

Date of application acceptance: May 6, 2015

Date filed with the Board of Environmental Protection:

This Order prepared by Jane E. Gilbert, Bureau of Air Quality.

