



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

Maine Air National Guard)
Penobscot County) Departmental
Bangor, Maine) Finding of Fact and Order
A-627-71-I-A (SM)) Air Emission License
Amendment #2

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

The Maine Air National Guard (Air Guard) of Bangor, Maine has applied for an air emission license amendment to update/correct some of the boiler/generator equipment. Corrections will also have to be made to the maximum heat input capacities in their existing Air Emissions License (A-627-71-G-R/A) issued May 14, 2010 and subsequent Air Emission License Amendment (A-627-71-H-A) issued April 25, 2011. Furthermore, the Air Guard is in the process of converting the base to fire natural gas in several boilers and is requesting the flexibility to fire both #2 fuel oil and natural gas. This fuel conversion process could continue through 2015.

This amendment will include several new boilers and generators that were previously not listed in the air license and will also update the air license with several boilers and generators that have been removed from the base.

B. Emission Equipment

The following tables in this amendment update all the boilers and generators at the facility and reflect the proposed and recent changes. The Air Guard is licensed to operate the following boilers:

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04679-2094
(207) 764-0477 FAX: (207) 760-3143

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Boilers operated at the Air Guard

Emission Unit	Max Design Capacity (MMBtu/hr)	Max Firing Rate	gal/hr or scf/hr	Fuel Type (Actual % S)	Date of manufacture	Stack #
AEI-L-416-1	1.81	13.20	gal/hr	#2 oil/<.0015%	1989	416-A
AEI-L-417-1	1.81	13.20	gal/hr	#2 oil/<.0015%	1986	417-A
AEI-L-417-2	4.80	35.00	gal/hr	#2 oil/<.0015%	1986	417-B
AEI-L-420-1	1.96	21.30	gal/hr	Propane/0%	2009	420-A
AEI-L-423-1	1.78	13.00	gal/hr	#2 oil/<.0015%	1998	423-A
AEI-L-486-2	1.78	13.00	gal/hr	#2 oil/<.0015%	1999	486-B
AEI-L-488-1	2.04	22.20	gal/hr	Propane/0%	1995	488-A
AEI-L-488-2	1.00	10.86	gal/hr	Propane/0%	1995	488-B
AEI-L-488-3	1.00	10.86	gal/hr	Propane/0%	1995	488-C
AEI-L-488-4	1.00	10.86	gal/hr	Propane/0%	1995	488-D
AEI-L-489-1	1.37	10.00	gal/hr	#2 oil/<.0015%	1986	489-A
AEI-L-491-1	1.37	10.00	gal/hr	#2 oil/<.0015%	1978	491-A
AEI-L-493-1	1.00	1000	scf/hr	Natural Gas	2010	493-A
AEI-L-493-2	1.00	1000	scf/hr	Natural Gas	2010	493-B
AEI-L-496-1	4.80	35.00	gal/hr	#2 oil/<.0015%	1955	496-A
AEI-L-496-2	4.80	35.00	gal/hr	#2 oil/<.0015%	1955	496-B
AEI-L-496-3	1.37	10.00	gal/hr	#2 oil/<.0015%	1955	496-C
AEI-L-497-1	1.78	13.00	gal/hr	#2 oil/<.0015%	1961	497-A
AEI-L-499-1	4.00	4000	scf/hr	Natural Gas	2011	499-A
AEI-L-499-2	4.00	4000	scf/hr	Natural Gas	2011	499-B
AEI-L-499-3	4.00	4000	scf/hr	Natural Gas	2011	499-C
AEI-L-499-4	1.50	1500	scf/hr	Natural Gas	2011	499-D
AEI-L-505-1	1.81	13.20	gal/hr	#2 oil/<.0015%	1985	505-A
AEI-L-505-2	1.81	13.20	gal/hr	#2 oil/<.0015%	1985	505-B
AEI-L-510-1	1.51	11.00	gal/hr	#2 oil/<.0015%	2008	510-A
AEI-L-510-2	1.51	11.00	gal/hr	#2 oil/<.0015%	2008	510-B
AEI-L-512-1	1.78	13.00	gal/hr	#2 oil/<.0015%	2008	512-A
AEI-L-513-1	2.71	19.80	gal/hr	#2 oil/<.0015%	1986	515-A
AEI-L-515-1	1.78	13.00	gal/hr	#2 oil/<.0015%	2009	515-A
AEI-L-515-2	1.78	13.00	gal/hr	#2 oil/<.0015%	2009	515-A
AEI-L-518-1	1.78	13.00	gal/hr	#2 oil/<.0015%	1999	518-A
AEI-L-518-2	1.78	13.00	gal/hr	#2 oil/<.0015%	1999	518-A
AEI-L-532-1	2.71	19.80	gal/hr	#2 oil/<.0015%	2005	532-A
AEI-L-536-1	1.78	13.00	gal/hr	#2 oil/<.0015%	1999	536-A
AEI-L-541-1	1.86	13.60	gal/hr	#2 oil/<.0015%	1993	541-A
AEI-L-542-1	4.80	35.00	gal/hr	#2 oil/<.0015%	1996	542-A

Generators operated at the Air Guard

Emission Unit	Type of Equipment	Max Design Capacity (MMBtu/hr)	Max Firing Rate (gal/hr)	Fuel Type (Actual %S)	Date of manufacture
AEI-L-002	Generator	1.56	11.4	Diesel<.0015%	1984
AEI-L-003	Fire Pump	3.43	25	Diesel<.0015%	1994
AEI-L-004	Fire Pump	3.43	25	Diesel<.0015%	1994
AEI-L-005	Fire Pump	3.43	25	Diesel<.0015%	1994
AEI-L-007	Generator	1.83	13.3	Diesel<.0015%	1988
AEI-L-008	Generator	1.95	14.3	Diesel<.0015%	1988
AEI-L-009	Generator	1.56	11.4	Diesel<.0015%	1984
AEI-L-019	Generator	0.77	5.6	Diesel<.0015%	2003
AEI-L-020	Generator	0.77	5.6	Diesel<.0015%	1994
AEI-L-033	Generator	0.55	4.0	Diesel<.0015%	1987
AEI-L-034	Generator	0.77	5.6	Diesel<.0015%	1998
AEI-L-037	Generator	1.10	8.0	Diesel<.0015%	1994
AEI-L-043	Generator	0.77	5.6	Diesel<.0015%	2007
AEI-L-101	Generator	0.73	5.3	Diesel<.0015%	2010
AEI-L-102	Generator	2.33	17.0	Diesel<.0015%	2010
AEI-L-104	Generator	3.67	26.8	Diesel<.0015%	2010
AEI-L-105	Generator	0.84	6.1	Diesel<.0015%	2006
AEI-L-106	Generator	0.73	5.3	Diesel<.0015%	2010
AEI-L-107	Generator	1.60	11.7	Diesel<.0015%	2004
AEI-L-108	Generator	0.73	5.3	Diesel<.0015%	2010
AEI-L-109	Generator	0.96	7.0	Diesel<.0015%	1986
AEI-L-110	Generator	2.66	19.4	Diesel<.0015%	2010
AEI-L-111	Generator	7.33	53.5	Diesel<.0015%	2011
AEI-L-112	Generator	3.67	26.8	Diesel<.0015%	2010
AEI-L-113	Generator	4.20	30.7	Diesel<.0015%	1986
AEI-L-114	Generator	4.20	30.7	Diesel<.0015%	1986
AEI-L-115	Generator	0.90	6.6	Diesel<.0015%	1999
AEI-L-116	Generator	1.60	11.7	Diesel<.0015%	1997
AEI-L-117	Generator	1.16	8.5	Diesel<.0015%	2008
AEI-L-118	Generator	5.51	40.2	Diesel<.0015%	1998
AEI-L-119	Generator	2.06	15.0	Diesel<.0015%	1993
AEI-L-120	Generator	0.73	5.3	Diesel<.0015%	2010
AEI-L-121	Generator	0.53	3.9	Diesel<.0015%	2003
AEI-L-123	Generator	3.67	26.8	Diesel<.0015%	2010
AEI-L-124	Generator	0.89	6.5	Diesel<.0015%	2006

C. Application Classification

New emission units at a minor source are considered a major modification based on whether or not expected emission increases exceed the “Significant Emission Levels” as defined in the Department’s regulations. The Air Guard has not requested to increase the facility-wide #2 fuel oil usage limit of 400,000 gallons per year. Also, converting units of like-kind from firing #2 fuel oil to natural gas will

decrease all criteria pollutants on a short term (lb/hr) and long term (tons/year) basis. However, the total maximum capacity (MMBtu/hr) of all facility-wide emergency diesel generators has increased and therefore based on the maximum operation of 500 hours per year each, the ton per year emissions have increased from the facility.

The emission increases are determined by subtracting the current licensed emissions preceding the modification from the maximum future licensed allowed emissions, as follows:

Pollutant	Current License (TPY)	Future License (TPY)	Net Change (TPY)	Sig. Level
PM	5.4	6.3	0.9	100
PM ₁₀	5.4	6.3	0.9	100
SO ₂	15.0	15.4	0.4	100
NO _x	61.0	86.0	25.0	100
CO	14.3	43.3	29.0	100
VOC	29.8	30.1	0.3	50
CO _{2e}	N/A	<100,000	N/A	100,000

This modification is determined to be a minor modification and has been processed as such. With the fuel limit on boilers and the operating hours restriction on the emergency back-up generators, the facility is licensed below the major source thresholds and is considered a synthetic minor.

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 06-096 CMR 100 (as amended) of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in 06-096 CMR 100 (as amended) of the Air Regulations. BACT is a top down approach to selecting air emission controls considering economic, environmental and energy impacts. The Air Guard will be subject to BACT requirements for several boilers and emergency generators that were not previously listed in the air emissions license. Descriptions of the applicable requirements are provided below under the appropriate headings.

B. BACT/BPT for Boilers

The Air Guard has requested to upgrade some aging boilers and make corrections to maximum heat input capacities and include these changes to its air emissions license. The oil-fired boilers provide building heat and hot water to the various buildings that make up the facility. The Air Guard is currently constructing a new aircraft maintenance hangar. The new hangar takes the place of a 1954 facility that has become outdated and inefficient. The new hangar will have identical operations as the existing hangar, with much of the equipment in the existing hangar simply being transferred to the new facility. Operations that have taken place in the past and will continue are mainly refurbishing military aircraft and may include small scale painting and fiberglassing.

In addition to the construction of the new hangar, there is an ongoing base-wide effort to convert the Base to natural gas. Buildings 493 and 499 (the new hangar) are currently being converted, however details of when the remaining areas of the base will begin the conversion process to natural gas are not yet known. Depending on available funding, the conversion could occur later in 2012 through 2015. Per this amendment, the Air Guard will also be licensed to fire natural gas. Currently the facility is licensed to fire a maximum of 400,000 gallons per year of #2 fuel oil. This equates to approximately 56,000 MMBtu/year based on the estimated heating value of distillate oil at 140,000 Btu/gallon, this in-turn can be calculated to roughly 54 million standard cubic feet of natural gas per year (54 million scf/yr) based on a heating value of natural gas at 1030 Btu/scf. Therefore, to avoid opening the air emissions license every time the base converts a boiler to fire natural gas, the Air Guard will keep the facility's total MMBtu/yr to less than 56,000 MMBtu/year either when firing fuel oil or natural gas. For emissions inventory purposes, the Air Guard shall update the Department with any changes in boiler size and type of fuel fired for each unit.

Natural Gas fired and #2 Oil-Fired Boilers

The new hanger (designated as Building 499) will include three previously unlicensed boilers rated at 4.0 MMBtu/hr each, which will fire only natural gas. The new boilers are each rated less than 10 MMBtu/hr and are therefore not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989. The natural gas fired boilers are also not subject to *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJ).

The regulated pollutants emitted from the #2 oil-fired boilers (or natural gas) are particulate matter (PM), particulate matter with a diameter smaller than ten microns (PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC).

A summary of the BPT (for the existing units) and BACT (for the updated units) analysis for each boiler at the Air Guard is the following:

1. The total fuel use for the facility shall not exceed 400,000 gal/year of #2 fuel oil or 54 million standard cubic feet (scf)/yr of natural gas, based on a 12-month rolling total. The Air Guard will keep the facility's fuel consumption to less than 56,000 MMBtu/year whether firing fuel oil, natural gas, or a combination of the two fuels.
2. The SO₂ emission limits are based on the firing of natural gas and/or fuel which meets the criteria in ASTM D396 for #2 fuel oil.
 - Prior to January 1, 2016, the fuel oil fired in the boilers shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRSA §603-A(2)(A)(3),
 - beginning January 1, 2016, the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.005% by weight (50 ppm), and
 - beginning January 1, 2018, the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.0015% by weight (15 ppm).
3. Fuel Burning Equipment Particulate Emission Standard, 06-096 CMR 103 (as amended) regulates PM emission limits, however, the BPT limits are more stringent. The PM₁₀ limits are derived from the PM limits.
4. NO_x emission limits are based on data from similar #2 oil fired or natural gas boilers of this size and age.
5. CO and VOC emission limits are based upon AP-42 data dated 9/98.
6. Visible emissions from each boiler firing #2 fuel oil shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period.
7. Visible emissions from each boiler firing natural gas shall not exceed 10% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period.
8. The Air Guard shall meet the applicable requirements of 40 CFR Part 63 Subpart JJJJJ; including but not limited to the recordkeeping, reporting/notification requirements, and the implementation of a boiler tune-up program. The boilers that are converted to burn only natural gas are not subject to 40 CFR Part 63 Subpart JJJJJ.

Therefore, due to the individual size of the boilers, the combustion fuel limits, and keeping the facility's total MMBtu/yr to less than 56,000 MMBtu/year either when

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firing fuel oil or natural gas, emissions from these boilers are considered relatively small and do not warrant additional pollution control equipment.

C. Back-up Diesel Generators

NSPS Generators

The Air Guard operates several emergency back-up generators for emergency power in the event of a natural or man-made accident/disaster. Several of these diesel generators were manufactured and installed after April 2006; therefore, these units are subject to new federal requirements for diesel generators. The emergency generators ordered after July 11, 2005 and manufactured after April 1, 2006 are subject to New Source Performance Standards 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines*. By meeting the requirements of Subpart IIII, the facility will be in compliance with the NESHAP for those subject generators.

An emergency Generator is defined as any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary engines used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary engines used to pump water in the case of fire or flood. Stationary engines used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

A summary of the BPT (or BACT) analysis for NSPS applicable emergency generators is the following:

1. The NSPS generators shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% by weight).
2. The NSPS generators shall be limited to 100 hr/yr of operation for maintenance checks and readiness testing. The generators shall be limited to 500 hours per year of total operation. Both of these limits are based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours.
3. The generators shall each be equipped with a non-resettable hour meter.
4. 06-096 CMR 103 (as amended) regulates PM emission limits. The PM₁₀ limits are derived from the PM limits.
5. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.

6. The Air Guard shall operate and maintain the NSPS applicable emergency generators in accordance with the manufacturer's written instructions. The Air Guard shall not change settings that are not approved in writing by the manufacturer.
7. Visible emissions from the emergency generators shall each not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

Existing emergency diesel units older than 2006 (NESHAP applicability)

The Air Guard has several emergency diesel units older than 2006 in various buildings located on the base. The federal regulation 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines* is not applicable to the emergency generators at the base. The units are considered existing, emergency stationary reciprocating internal combustion engines at an area HAP source however, the units are emergency units at a facility considered institutional as specified in EPA's August 9, 2010 memo. This EPA memo specifically exempts these units from the federal requirements.

D. Facility Emissions and Fuel Use Caps

Allowable annual facility emissions are calculated from the combustion of 400,000 gallons of ASTM D396 fuel oil #2 fuel oil based on a 12 month rolling total. Even though the Base is allowed to burn natural gas per this amendment, calculating the facility-wide tons per year criteria pollutants based on combusting only fuel oil provided the worst case scenario. Total facility-wide emissions are also based on operation of the emergency back-up diesel generators each limited to 500 hours per year and the limit on non-combustion VOC and HAP emitting equipment.

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

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC	HAP
Boilers	3.5	3.5	14.2	11.2	1.0	0.5	
Back-up Generators	2.8	2.8	1.2	74.8	42.3	2.6	
Process emissions	--	--	--	--	--	27	9.9, 24.9
Total TPY	6.3	6.3	15.4	86.0	43.3	30.1	9.9 (individual) 24.9 (total)

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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 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in 06-096 CMR 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 (CO₂e).

Based on the facility’s fuel use limit(s), the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and Mandatory Greenhouse Gas Reporting, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, the Air Guard is below the major source threshold of 100,000 tons of CO₂ e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

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, or increment standards either alone or in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-627-71-I-A, subject to the conditions found in Air Emissions License, A-627-71-G-R/A, subsequent amendments, and the following conditions:

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License 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.

SPECIFIC CONDITIONS

The following condition shall replace Condition (16) of Air Emission License, A-627-71-G-R/A and Condition (16) of Air Emission License Amendment, A-627-71-H-A:

(16) **Boilers**

- A. Total fuel use for the boilers shall not exceed 400,000 gal/yr of #2 fuel oil or 54 million scf/year of natural gas. The Air Guard shall keep the facility's total fuel consumption to less than 56,000 MMBtu/year whether firing fuel oil, natural gas, or a combination of the two fuels.
- B. Compliance for the fuel limit shall be demonstrated by fuel records from the supplier showing the quantity and type of fuel delivered. The fuel oil shall meet the criteria in ASTM D396 for #2 oil. Records of annual fuel use shall be kept on a 12-month rolling total basis.
 - 1. Prior to January 1, 2016, the #2 fuel oil fired in the boiler shall be ASTM D396 compliant (max. sulfur content of 0.5% by weight). [06-096 CMR 115, BPT]
 - 2. Beginning January 1, 2016, the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.005% by weight (50 ppm). [38 MRSA §603-A(2)(A)(3)]
 - 3. Beginning January 1, 2018, the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.0015% by weight (15 ppm). [38 MRSA §603-A(2)(A)(3)]

[06-096 CMR 115, BPT]

- C. The Air Guard shall limit emissions from the boilers (greater than 1.0 MMBtu/hr) to the following: [06-096 CMR 115, BACT]

Pollutant	lb/MMBtu	lb/hour
PM	0.08 (oil), 0.05 (gas)	0.4
PM10	--	0.4
SO ₂	--	2.4
NO _x	--	1.9
CO	--	0.2
VOC	--	0.1

Note: The calculated maximum lb/hour emission limit is based on the largest boiler, operating at 4.8 MMBtu/hr

- D. Visible emissions from any boiler on oil shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period. Visible emissions from any boiler on natural gas shall not exceed 10% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period. [06-096 CMR 101]

E. The Air Guard shall meet the applicable requirements of 40 CFR Part 63 Subpart JJJJJ; including but not limited to the recordkeeping, reporting/notification requirements, and the implementation of a boiler tune-up program. The boilers that are converted to burn only natural gas are not subject to 40 CFR Part 63 Subpart JJJJJ. [06-096 CMR 115, BACT]

The following condition shall replace Condition (17) of Air Emission License, A-627-71-G-R/A and Condition (17) of Air Emission License Amendment, A-627-71-H-A:

(17) NSPS Emergency Generators

- A. The emergency diesel generators manufactured after April 2006 shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm (0.0015%). [40 CFR 60.4207(b)]
- B. Compliance with the sulfur content limits shall be based on fuel records from the supplier showing the type of fuel delivered and the sulfur content of the fuel. [06-096 CMR 115, BACT]
- C. The NSPS applicable generators shall each be limited to 100 hr/yr of operation for maintenance checks and readiness testing. Each generator shall each be limited to 500 hours per year of total operation. Both of these limits are based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours. [40 CFR 60.4211(E) and 06-096 CMR 115, BACT]
- D. The generators shall be equipped with non-resettable hour meters. [40 CFR 60.4209(a)]
- E. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
NSPS Generators	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

F. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
NSPS Generators	1.0	1.0	0.1	17.0	6.5	2.4

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Note: The calculated maximum lb/hour emission limit is based on the largest generator, operating at 7.9 MMBtu/hr

- G. The NSPS applicable generators are subject to PM, CO, and NO_x + VOC emission requirements set forth in 40 CFR 60, Subpart III. Compliance with these emission requirements shall be demonstrated by certification from the manufacturer that these engines classes meet the appropriate Tier standards. [40 CFR 60, Subpart III]
- H. The Air Guard shall operate and maintain these generators in accordance with the manufacturer's written instructions. The facility shall not change settings that are not approved in writing by the manufacturer. [40 CFR 60.4211(a)]
- I. Visible emissions from the NSPS generators shall each not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

DONE AND DATED IN AUGUSTA, MAINE THIS 28th DAY OF June, 2012.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: *Patricia W. Aho*
PATRICIA W. AHO, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-627-71-G-R/A.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: March 28, 2012
Date of application acceptance: April 9, 2012

Date filed with the Board of Environmental Protection:

This Order prepared by Edwin Cousins, Bureau of Air Quality

