



DEPARTMENT ORDER

**The University of Maine System
 University of Maine at Augusta
 Kennebec County
 Augusta, Maine
 A-602-71-K-R/A**

**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 University of Maine at Augusta (UMA) has applied to renew their Air Emission License for the operation of emission sources associated with their campus. UMA has also requested an amendment to their license in order to remove one boiler, add two new boilers, and remove fuel limits.

The equipment addressed in this license is located at University Drive, Augusta, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type, % sulfur	Date of Manuf.	Date of Install.	Stack #
6 BDK C	1.6	11.6 gal/hr	Distillate fuel, 0.5% by weight	2016	2016	6
		1550 scf/hr	Natural gas, Negligible sulfur			
6 BDK D	1.6	11.6 gal/hr	Distillate fuel, 0.5% by weight	2016	2016	6
		1550 scf/hr	Natural gas, Negligible sulfur			
2 JH	5.0	36.0 gal/hr	Distillate fuel, 0.5% by weight	2001	2001	1
		4860 scf/hr	Natural gas, Negligible sulfur			

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type, % sulfur	Date of Manuf.	Date of Install.	Stack #
18 STC A	1.5	10.8 gal/hr	Distillate fuel, 0.5% by weight	2003	2003	1
		1460 scf/hr	Natural gas, Negligible sulfur			
18 STC B	1.5	10.8 gal/hr	Distillate fuel, 0.5% by weight	2003	2003	1
		1460 scf/hr	Natural gas, Negligible sulfur			

UMA also operates many boilers that are rated below the minimum licensing thresholds for boilers under 06-096 C.M.R. ch. 115. A full list was included in its application submitted on 11/28/2016.

Generator

Equipment	Input Capacity (MMBtu/hr)	Output Capacity (HP)	Fuel Type, % sulfur	Firing Rate (gal/hr)	Date of Manuf.	Date of Install.	Stack #
17 BDG G	1.55	215	Distillate fuel, 0.05% by weight	11.6	1999	1999	17

C. Definitions

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

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

D. Application Classification

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

The application includes the licensing of increased emissions and the installation of new equipment. Therefore, the license is considered to be a renewal of currently licensed emission units and an amendment and it has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115.

The facility is licensed below the major source thresholds for criteria pollutants and is considered a minor source of air pollution. The facility is also licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of HAP.

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the "Significant Emission" levels as defined in the Department's *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100. The emission increases are determined by subtracting the current licensed annual emissions preceding the modification from the maximum future licensed annual emissions, as follows:

Pollutant	Previous License (TPY)	Current License (TPY)	Net Change (TPY)	Significant Emission Levels
PM	3.5	4.0	+ 0.5	100
PM ₁₀	3.5	4.0	+ 0.5	100
SO ₂	0.8	24.6	+ 23.4	100
NO _x	5.8	7.5	+1.7	100
CO	3.9	4.1	+0.2	100
VOC	0.3	0.3	--	50

Increased annual emissions associated with this license are primarily due to a calculation error in license A-602-71-J-M and not as a result of the removal of the fuel use limit or the equipment changes.

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

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

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

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

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

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

B. Boilers

UMA operates five boilers rated above minimum licensing thresholds for heat and hot water: 6 BDK C, 6 BDK D, 2 JH, 18 STC A, and 18 STC B. The boilers have a combined heat input capacity of 11.2 MMBtu/hr, and they all fire distillate fuel and natural gas. The boilers were installed in 2016, 2016, 2001, 2003, and 2003, respectively, and 6 BDK C and 6 BDK D exhaust through a shared stack, Stack 6, while the other three exhaust through another shared stack, Stack 1.

1. BPT Findings (2 JH, 18 STC A, 18 STC B)

The BPT emission limits for the boilers are based on the following:

	Distillate Fuel	Natural Gas
PM	0.08 lb/MMBtu A-6032-71-I-R (12/19/2011), BACT	0.05 lb/MMBtu A-602-71-J-M (07/17/2015), BPT
PM ₁₀	0.08 lb/MMBtu A-602-71-I-R (12/19/2011), BACT	0.05 lb/MMBtu A-602-71-J-M (07/17/2015), BPT
SO ₂	0.5 lb/MMBtu based on the firing of distillate fuel with a sulfur content of 0.5% by weight	0.6 lb/MMscf Based on AP-42 Table 1.4-2, dated 07/98
NO _x	20 lb/1000gal Based on AP-42 table 1.3-1, dated 05/10	100 lb/MMscf Based on AP-42 Table 1.4-1, dated 07/98
CO	5 lb/1000gal Based on AP-42 table 1.3-1, dated 05/10	84 lb/MMscf Based on AP-42 Table 1.4-1, dated 07/98
VOC	0.34 lb/1000gal Based on AP-42 table 1.3-1, dated 05/10	5.5 lb/MMscf Based on AP-42 Table 1.4-2, dated 07/98
Visible Emissions	06-096 C.M.R. ch. 115, BPT	

The BPT emission limits for the boilers are the following:

Unit	Fuel	Pollutant	lb/MMBtu
2 JH	Distillate Fuel	PM	0.08
	Natural Gas	PM	0.05

Unit	Fuel	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
2 JH	Distillate Fuel	0.40	0.40	2.50	0.72	0.18	0.01
	Natural Gas	0.25	0.25	0.01	0.48	0.41	0.03
18 STC A	Distillate Fuel	0.12	0.12	0.75	0.22	0.05	0.01
	Natural Gas	0.08	0.08	Negligible	0.15	0.12	0.01
18 STC B	Distillate Fuel	0.12	0.12	0.75	0.22	0.05	0.01
	Natural Gas	0.08	0.08	Negligible	0.15	0.12	0.01

Visible Emissions

Visible emissions from the shared stack for 2 JH, 18 STC A, and 18 STC B – Stack 1 – shall not exceed 20% opacity on a six-minute block average basis when any of the boilers are firing distillate fuel.

Visible emissions from the shared stack for 2 JH, 18 STC A, and 18 STC B – Stack 1 – shall not exceed 10% opacity on a six-minute block average basis when all boilers are firing natural gas.

2. BACT Findings (6 BDK C, 6 BDK D)

The BACT emission limits for the boilers are based on the following:

	Distillate Fuel	Natural Gas
PM	0.08 lb/MMBtu 06-96 C.M.R. ch. 115, BACT	0.05 lb/MMBtu 06-96 C.M.R. ch. 115, BACT
PM ₁₀	0.08 lb/MMBtu 06-96 C.M.R. ch. 115, BACT	0.05 lb/MMBtu 06-96 C.M.R. ch. 115, BACT
SO ₂	0.5 lb/MMBtu based on the firing of distillate fuel with a sulfur content of 0.5% by weight	0.6 lb/MMscf Based on AP-42 Table 1.4-2, dated 07/98
NO _x	20 lb/1000gal Based on AP-42 table 1.3-1, dated 05/10	100 lb/MMscf Based on AP-42 Table 1.4-1, dated 07/98
CO	5 lb/1000gal Based on AP-42 table 1.3-1, dated 05/10	84 lb/MMscf Based on AP-42 Table 1.4-1, dated 07/98
VOC	0.34 lb/1000gal Based on AP-42 table 1.3-1, dated 05/10	5.5 lb/MMscf Based on AP-42 Table 1.4-2, dated 07/98
Visible Emissions	06-096 C.M.R. ch. 115, BPT	

The BACT emission limits for the boilers are the following:

Unit	Fuel	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
6 BDK C	Distillate Fuel	0.13	0.13	0.80	0.23	0.06	0.01
	Natural Gas	0.08	0.08	Negligible	0.16	0.13	0.01
6 BDK D	Distillate Fuel	0.13	0.13	0.80	0.23	0.06	0.01
	Natural Gas	0.08	0.08	Negligible	0.16	0.13	0.01

Visible Emissions

Visible emissions from the shared stack for 6 BDK C and D –Stack 6– shall not exceed 20% opacity on a six-minute block average basis when either of the boilers is firing distillate fuel.

Visible emissions from the shared stack for 6 BDK C and D –Stack 6– shall not exceed 10% opacity on a six-minute block average basis when all boilers are firing natural gas.

3. Fuel Requirements

Fuel Sulfur Content Requirements

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

Fuel Limits

Fuel limits in the previous license represent 86% of the current maximum possible annual input into the boilers and limit the total annual emissions by one ton or less per year for each pollutant except SO₂, which is limited by 3.1 tons per year. Because of the minor change in potential emissions, and because the allowable fuel sulfur content in the state of Maine, starting on July 1, 2018, will result in significant reductions in the facility's potential SO₂ emissions (24.6 to 0.1 tons per year), the Department has determined that the fuel limits for the boilers are unnecessary and can be removed.

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

Due to the sizes of the boilers, none is subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

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

None of the boilers are subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJ. The units are licensed to fire distillate fuel and natural

gas, but they fire natural gas as a primary fuel; because they fire gaseous fuel, they are all exempt. [40 C.F.R. §§ 63.11193, 63.11195, and 63.11237]

Gas-fired boilers are exempt from 40 C.F.R. Part 63, Subpart JJJJJJ. However, boilers which fire fuel oil are not. A “gas-fired boiler” is defined as any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours for each boiler during any calendar year. [40 C.F.R. § 63.11237]

Any boiler designed to burn fuels besides gaseous fuels prior to June 4, 2010, will be considered an existing boiler under this rule. A boiler which currently fires gaseous fuels, but converts back to firing another fuel (such as distillate fuel) in the future would become subject as an existing boiler at the time it is converted back to oil.

C. Generator

UMA operates one emergency generator, 17 BDK G. 17 BDK G is a generator set consisting of an engine and an electrical generator. The generator has an engine rated at 1.55 MMBtu/hr, which fires distillate fuel; the unit was manufactured in 1999.

1. BPT Findings

The BPT emission limits for the generator are based on the following:

Distillate Fuel

PM	0.12 lb/MMBtu A-602-71-D-M (11/12/1999), BACT
PM ₁₀	0.12 lb/MMBtu A-602-71-D-M (11/12/1999), BACT
SO ₂	0.05 lb/MMBtu based on the firing of distillate fuel with a sulfur content of 0.05% by weight
NO _x	4.41 lb/MMBtu Based on AP-42 table 3.3-1, dated 10/96
CO	0.95 lb/MMBtu Based on AP-42 table 3.3-1, dated 10/96
VOC	0.36 lb/MMBtu Based on AP-42 table 3.3-1, dated 10/96
Visible Emissions	06-096 C.M.R. ch. 115, BPT

The BPT emission limits for the generators are the following:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
17 BDK G	0.19	0.19	0.08	6.84	1.47	0.56

Visible Emissions

Visible emissions from 17 BDK G shall not exceed 20% opacity on a six-minute block average basis.

Fuel Sulfur Content Requirements

The generator is licensed to fire distillate fuel which, by definition, has a sulfur content of 0.05% or less by weight. Per 38 M.R.S. § 603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use in the generators shall not exceed 0.0015% by weight (15 ppm).

Operation Requirements

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

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

2. New Source Performance Standards (NSPS)

Due to the date of manufacture of 17 BDK G, it is not subject to the New Source Performance Standards (NSPS) *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)*, 40 C.F.R. Part 60,

Subpart IIII since the unit was manufactured prior to April 1, 2006. [40 C.F.R. § 60.4200]

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

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ is not applicable to 17 BDK G. The unit is considered an existing, emergency stationary reciprocating internal combustion engines at an area HAP source. However, it is considered exempt from the requirements of 40 C.F.R. Part 63, Subpart ZZZZ since it is categorized as residential, commercial, or institutional emergency engine and it does not operate or is not contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or frequency, or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 C.F.R. § 63.6640(f)(4)(ii).

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

D. Annual Emissions

1. Total Annual Emissions

UMA shall be restricted to the following annual emissions on a calendar year total basis. The tons per year limits were calculated based on 100 hr/year of operation of 17 BDK G and 8760 hours of operation of each boiler, using the worst case of both fuel options for each pollutant:

Total Licensed Annual Emissions for the Facility

Tons/year

(used to calculate the annual license fee)

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Boilers	3.92	3.92	24.53	7.08	4.00	0.26
17 BDK G	0.01	0.01	0.01	0.34	0.07	0.03
Total TPY	4.0	4.0	24.6	7.5	4.1	0.3

2. Greenhouse Gases

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

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

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

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

III. AMBIENT AIR QUALITY ANALYSIS

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

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

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-602-71-K-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

A. Fuel

1. Prior to July 1, 2018, the facility shall fire distillate fuel with a maximum sulfur content not to exceed 0.5% by weight. [06-096 C.M.R. ch. 115, BPT and BACT]
2. Beginning July 1, 2018, the facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm). [06-096 C.M.R. ch. 115, BPT and BACT]
3. Compliance shall be demonstrated by fuel records from the supplier showing the type and the percent sulfur of the fuel delivered (if applicable). [06-096 C.M.R. ch. 115, BPT and BACT]

B. Emissions shall not exceed the following:

Unit	Fuel	Pollutant	lb/MMBtu	Origin and Authority
2 JH	Distillate Fuel	PM	0.08	06-096 C.M.R ch. 115, BPT
	Natural Gas	PM	0.05	

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

Unit	Fuel	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
2 JH	Distillate Fuel	0.40	0.40	2.50	0.72	0.18	0.01
	Natural Gas	0.25	0.25	0.01	0.48	0.41	0.03
18 STC A	Distillate Fuel	0.12	0.12	0.75	0.22	0.05	0.01
	Natural Gas	0.08	0.08	Negligible	0.15	0.12	0.01
18 STC B	Distillate Fuel	0.12	0.12	0.75	0.22	0.05	0.01
	Natural Gas	0.08	0.08	Negligible	0.15	0.12	0.01

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

Unit	Fuel	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
6 BDK C	Distillate Fuel	0.13	0.13	0.80	0.23	0.06	0.01
	Natural Gas	0.08	0.08	Negligible	0.16	0.13	0.01
6 BDK D	Distillate Fuel	0.13	0.13	0.80	0.23	0.06	0.01
	Natural Gas	0.08	0.08	Negligible	0.16	0.13	0.01

E. Visible Emissions

1. Visible emissions from the shared stack 2 JH, 18 STC A, and 18 STC B – Stack 1 – shall not exceed 20% opacity on a six-minute block average basis when any of the boilers are firing distillate fuel. [06-096 C.M.R. ch. 115, BPT]
2. Visible emissions from the shared stack for for 2 JH, 18 STC A, and 18 STC B – Stack 1 – shall not exceed 10% opacity on a six-minute block average basis when all boilers are firing natural gas. [06-096 C.M.R. ch. 115, BPT]
3. Visible emissions from the shared stack for 6 BDK C and D –Stack 6 – shall not exceed 20% opacity on a six-minute block average basis when either of the boilers is firing distillate fuel. [06-096 C.M.R. ch. 115, BACT]
4. Visible emissions from the shared stack for 6 BDK C and D –Stack 6 – shall not exceed 10% opacity on a six-minute block average basis when all boilers are firing natural gas. [06-096 C.M.R. ch. 115, BACT]

F. UMA shall comply with all applicable requirements of 40 C.F.R. Part 63, Subpart JJJJJ for 6 BDK C, 6 BDK D, and/or 2JH if liquid fuel is fired or if solid fuel is mixed and fired with gaseous fuel in any of the three for more than 48 hours in a calendar year except for in periods of gas curtailment, gas supply interruptions, startups or periodic testing on liquid fuel. [06-096 C.M.R. ch. 115, BPT]

(17) **17 BDK G**

- A. 17 BDK G shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 115, BPT]
- B. 17 BDK G shall be equipped with a non-resettable hour meter [06-096 C.M.R. ch. 115, BPT]

C. UMA shall keep records that include maintenance conducted on the engine and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [06-096 C.M.R. ch. 115, BPT]

D. Fuel Use

1. Prior to July 1, 2018, the facility shall fire distillate fuel with a maximum sulfur content not to exceed 0.05% by weight. [06-096 C.M.R. ch. 115, BPT]
2. Beginning July 1, 2018, the facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm). [06-096 C.M.R. ch. 115, BPT]
3. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered (if applicable). Records of annual fuel use shall be kept on a monthly and calendar year basis. [06-096 C.M.R. ch. 115, BPT]

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

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
17 BDK G	0.19	0.19	0.08	6.84	1.47	0.56

- F. Visible emissions from 17 BDK G shall not exceed 20% opacity on a six-minute block average basis.
- G. The emergency generator is only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. It is not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity.

- (18) UMA 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 31 DAY OF March, 2017.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Conner for
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: 11/28/2016

Date of application acceptance: 11/29/2016

Date filed with the Board of Environmental Protection:

This Order prepared by Colby Fortier-Brown, Bureau of Air Quality.

