



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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Center for Cooperative
Aquaculture Research
Hancock County
Franklin, Maine
A-924-71-D-R/M (SM)

Departmental
Findings of Fact and Order
Air Emission License
Renewal/Minor Revision

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 Center for Cooperative Aquaculture Research (CCAR) of Franklin, Maine has applied for an Air Emission License Renewal permitting the operation of emission sources associated with their Aquaculture Research facility. The facility has also applied for a minor revision to include two propane fired boilers. The facility is located at 33 Salmon Farm Rd and is operated by the University of Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (gal/hr)	Fuel Type	Stack #
Boiler #1	1.80	13.0	#2 Fuel Oil	1
Boiler #2	1.80	13.0	#2 Fuel Oil	1
Boiler #3	1.80	13.0	#2 Fuel Oil	1

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Propane Boiler #1 *	1.3	13.8	Propane	4
Propane Boiler #2 *	1.3	13.8	Propane	5

* Designates new units

CCAR operates a wood pellet boiler with a maximum heat input capacity of less than 1.0 MMBtu/hr. Per 06-096 CMR 115 Appendix B, fuel burning equipment with a maximum heat input less than 1.0 MMBtu/hr are considered insignificant and are noted in the air license for inventory purposes only. However, the unit may be subject to 06-096 CMR 101 "Visible Emissions" regulation and since it fires a fuel (wood pellets) other than natural gas, the unit is subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJ) explained in more detail in Section II.

Electrical Generation Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Firing Rate (gal/hr)	Fuel Type	Stack #
Emergency Generator #1	2.20	15.8	#2 Fuel Oil	2
Emergency Generator #2	2.20	15.8	#2 Fuel Oil	2
Emergency Generator #3	8.05	58.9	Diesel Fuel @ 0.0015% Sulfur	3

C. Application Classification

The application includes the renewal of boilers and generators, however, it includes two new propane fired units each rated with a maximum heat input capacity of 1.3 MMBtu/hr. The modification of a minor source is considered a major or minor revision based on expected emission increases as defined in the Department's regulations. 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	2.3	2.9	0.6	100
PM ₁₀	2.3	2.9	0.6	100
SO ₂	12.5	12.7	0.2	100
NO _x	11.3	12.8	1.5	100
CO	3.8	4.2	0.4	100
VOC	1.0	1.0	0.0	50
CO ₂ e	<100,000	<100,000	0	100,000

This amendment will increase emissions by less than 4 ton/year for each single pollutant and less than 8 ton/year for all pollutants combined. Therefore, this modification is determined to be a minor revision and has been processed as such. The license is considered to be a renewal of currently licensed emission units along with a minor revision and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (as amended). Based on the amount of fuel that can be combusted in the boilers and with the operating hours restriction on the emergency generator(s), 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 *Definitions Regulation*, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

B. New Emission Units (Propane Boilers #1 and #2)

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 CMR 100 (as amended). BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

CCAR has proposed to install two new propane fired boilers at a yet to be built new building. These units will both fire propane and will each have maximum design heat input capacity of 1.3 MMBtu/hr. The maximum amount of propane that can be fired in the boilers operating 24/7 is approximately 242,000 gallons

per year, which will be used to determine the licensed facility-wide ton per year emissions.

Federal Requirements

Due to the size of Propane Boiler #1 and #2, the boilers are 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.

Propane Boilers #1 and #2 each meet the definition of a "gas-fired boiler" contained in the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJ), therefore these units are not subject to the requirements of Subpart JJJJJ.

Firing Propane:

- PM/PM₁₀ - 0.05 lb/MMBtu, (06-096 CMR 115, BACT)
- SO₂ - 0.014 lb/MMBtu, (AP-42 dated 7/08)
- NO_x - 0.132 lb/MMBtu, (AP-42 dated 7/08)
- CO - 0.035 lb/MMBtu, (AP-42 dated 7/08)
- VOC - 0.003 lb/MMBtu, (AP-42 dated 7/08)
- Opacity - Visible emissions from each of the boilers firing propane shall not exceed 10% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a three (3) hour period.

The BPT emission limits for the boilers firing propane 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)
Propane Boiler #1	0.07	0.07	0.02	0.17	0.04	0.01
Propane Boiler #2	0.07	0.07	0.02	0.17	0.04	0.01

C. Existing Boilers #1, #2, and #3

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.

CCAR operates Boilers #1, #2, and #3 for heat and hot water needs at the facility. The boilers are each rated at 1.8 MMBtu/hr and fire fuel oil which meets the criteria of ASTM D396 for #2 oil. The boilers exhaust through a common stack.

Due to the size of the boilers, they are 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.

1. BPT Findings

The BPT emission limits for each boiler were based on the following:

#2 Fuel Oil

- PM/PM₁₀ – 0.2 lb/hr based on BACT emission limit of 0.08 lb/MMBtu
- SO₂ – Based on firing ASTM D396 compliant #2 fuel oil (0.5% sulfur); (0.9 lb/hr)
- NO_x – 20 lb/1000 gallons based on AP-42 Table 1.3-1 dated 5/10; (0.3 lb/hr)
- CO – 5 lb/1000 gal, AP-42, Table 1.3-1, dated 5/10; (0.1 lb/hr)
- VOC – 0.34 lb/1000 gal, AP-42, Table 1.3-3, dated 5/10; (0.1 lb/hr)
- Opacity – Visible emissions from each boiler firing fuel oil shall not exceed 20% opacity on a 6 minute block average, except for no more than one (1) six (6) minute block average in a 3 hour period.

Prior to January 1, 2016, the fuel oil fired in Boilers #1, #2, and #3 shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRS §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).

Periodic Monitoring

Periodic monitoring for the boilers shall include recordkeeping to document the type of fuel used.

2. 40 CFR Part 63 Subpart JJJJJ

Boilers #1, #2, and #3 (and the wood pellet boiler) may be subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJ). The units are considered existing oil boilers.

For informational purposes, a summary of the currently applicable federal 40 CFR Part 63 Subpart JJJJJ requirements is listed below. At this time, the Maine Department of Environmental Protection has not taken delegation of this area source MACT (Maximum Achievable Control Technology) rule promulgated by EPA, however CCAR is still subject to the requirements. 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

i. Initial Notification of Compliance

An Initial Notification submittal to EPA was due on September 17, 2011. [40 CFR Part 63.11225(a)(2)]

ii. Boiler Tune-Up Program

- (a) A boiler tune-up program shall be implemented to include the tune-up of applicable boilers by March 21, 2012, according to the rule currently in place. [40 CFR Part 63.11196(a)(1)] However, a No Action Assurance letter was issued on March 13, 2012, stating that EPA will exercise its enforcement discretion to not pursue enforcement action for failure to complete the required tune-up by the stated compliance date. The rule is expected to have a future compliance date in either 2013 or 2014 once the final revisions are promulgated.
- (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; however, the burner must be inspected at least once every 36 months. [40 CFR Part 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 CFR Part 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. [40 CFR Part 63.11223(b)(3)]
4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
5. Measure the concentration in the effluent stream of CO in parts per million (ppm), by volume, and oxygen in volume percent, before and after adjustments are made. [40 CFR Part 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 one week of start-up. [40 CFR Part 63.11223(b)(7)]

(c) A Notification of Compliance Status shall be submitted to EPA no later than 120 days after conducting the initial boiler tune-up. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]

(d) The facility shall implement a boiler tune-up program after the initial tune-up and initial compliance report has been submitted.

1. Each tune-up shall be conducted at a frequency specified by the rule and based on the size and age of the boiler. [40 CFR Part 63.11223(a)]
2. The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the type and amount of fuel used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)] The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJ including the following [40 CFR Part 63.11225(c)]:

copies of notifications and reports with supporting compliance documentation; 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; documentation of fuel type(s) used monthly by each boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during periods of malfunction to minimize emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

D. Emergency Generators #1 and #2

The Emergency Generators #1 and #2 are each rated at 2.2 MMBtu/hr and fire fuel oil which meets the criteria of ASTM D396 for #2 fuel oil. The generators were both manufactured in 1989. The federal regulation 40 CFR Part 60, Subpart III, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)* is not applicable to Emergency Generators #1 and #2 since the units were manufactured prior to April 1, 2006.

Emergency Generators #1 and #2 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. Emergency Generators #1 and #2 currently share a fuel tank with Boilers #1, #2, and #3. The installation of a new fuel tank for these generators or the installation of approximately 200 feet of piping to tie in to the fuel tank for Emergency Generator #3 is not economically feasible. Therefore, BPT (BACT established in previous air emissions license A-924-71-A-N) for Emergency Generators #1 and #2 shall be the use of ASTM D396 #2 fuel oil.

1. A summary of the BPT analysis for Emergency Generators #1 and #2 is the following:
 - a. Emergency Generators #1 and #2 shall each be limited to 500 hr/yr of operation based on a calendar year. Compliance shall be demonstrated by an hour meter and a written log of all generator operating hours.
 - b. The PM limits are derived from the BPT emission factor of 0.12 lb PM/MMBtu. The PM₁₀ limits are derived from the PM limits.
 - c. NO_x, CO, and VOC emission limits are based upon data supplied by the manufacturer.
 - d. Visible emissions from the stack shared by Emergency Generators #1 and #2 shall not exceed 30% opacity on a six (6) minute block average, except

for no more than three (3), six (6) minute block averages in a continuous 3-hour period.

2. 40 CFR Part 63, Subpart ZZZZ

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 listed above. The units are considered existing, emergency stationary reciprocating internal combustion engines at an area HAP source; however, they are considered exempt from the requirements of Subpart ZZZZ since they are categorized as a residential, commercial, or institutional emergency engines.

E. Emergency Generator #3

The Emergency Generator #3 is rated at 8.05 MMBtu/hr and fires ultra-low diesel fuel with a sulfur content limit of 0.0015% by weight. The generator was manufactured in 2005, therefore it is not subject to the federal regulation 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)* applicable to units manufactured after April 1, 2006. Also the unit is not subject to 40 CFR Part 63, Subpart ZZZZ since the Center for Cooperative Aquaculture is a research center for the university and classified as an institutional emergency engine.

Emergency Generator #3 is 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.

A summary of the BPT analysis for Emergency Generator #3 is the following:

1. Emergency Generator #3 shall be limited to 500 hr/yr of operation based on a calendar year. Compliance shall be demonstrated by an hour meter and a written log of all generator operating hours.
2. The PM limits are derived from MEDEP Chapter 103. The PM₁₀ limits are derived from the PM limits.
3. NO_x, CO, and VOC emission limits are based upon data supplied by the manufacturer.
4. Visible emissions from Emergency Generator #3 shall 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.

F. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour.

G. General Process Emissions

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.

H. Fuel Use Restrictions and Licensed Annual Emissions

1. Boilers #1, #2, and #3 shall be limited to firing #2 fuel oil which meets the criteria in ASTM D396. Emissions shall be based on continuous operation.
2. Emergency generators #1 and #2 shall each be limited to 500 hours of operation on a calendar year basis. Emergency generators #1 and #2 shall fire only #2 fuel oil which meets the criteria in ASTM D396.
3. Emergency generator #3 shall be limited to 500 hours of operation on a calendar year basis. Emergency generator #3 shall fire only diesel fuel with a sulfur content not to exceed 0.05%.
4. CCAR shall be restricted to the following annual emissions, based on a calendar year basis:

Total Licensed Annual Emission for the Facility

Tons/year

(used to calculate the annual license fee)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boilers #1, #2, and #3	1.91	1.91	12.04	3.42	0.85	0.09
Propane Boilers #1 and #2	0.57	0.57	0.16	1.50	0.38	0.03
Emergency Generator #1	0.07	0.07	0.19	1.62	0.92	0.32
Emergency Generator #2	0.07	0.07	0.19	1.62	0.92	0.32
Emergency Generator #3	0.24	0.24	0.10	4.67	1.08	0.17
Total	2.9	2.9	12.7	12.8	4.2	1.0

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, CCAR is below the major source threshold of 100,000 tons of CO₂e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling is not required for a renewal if the total emissions of any pollutant released do not exceed the following and there are no extenuating circumstances:

Pollutant	Tons/Year
PM	25
PM ₁₀	25
SO ₂	50
NO _x	100
CO	250

Based on the total facility licensed emissions, CCAR is below the emissions level required for modeling.

ORDER

The Department hereby grants Air Emission License A-924-71-D-R/M (SM) subject to 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.

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.A. §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 CMR 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 CMR 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 CMR 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353-A. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 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 CMR 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 CMR 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 CMR 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 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR 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 CFR 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 CMR 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 in accordance with the Department's air emission compliance test protocol and 40 CFR 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 CMR 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 CMR 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 emission 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 CMR 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 CMR 115]

SPECIFIC CONDITIONS

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

A. Fuel

1. Boilers #1, #2, and #3 shall fire only fuel oil which meets the criteria in ASTM D396 for #2 oil. Compliance shall be demonstrated by fuel records from the supplier documenting the type of the fuel. 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)]
4. Compliance shall be demonstrated by fuel records from the supplier showing the type and the percent sulfur content of the fuel delivered (if applicable). [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boilers #1, #2, #3 (each)	PM	0.08	06-096 CMR 115, BPT

C. 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)
Boilers #1, #2, and #3 (each)	0.2	0.2	0.9	0.3	0.1	0.1

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

(17) Propane Boilers #1 and #2

A. Fuel
CCAR shall fire propane in Propane Boilers #1 and #2, which shall be demonstrated by fuel records from the supplier showing the type of the fuel delivered. [06-096 CMR 115, BPT]

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

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Propane Boiler #1	PM	0.05	06-096 CMR 115, BACT
Propane Boiler #2	PM	0.05	06-096 CMR 115, BACT

C. 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)
Propane Boiler #1	0.07	0.07	0.02	0.17	0.04	0.01
Propane Boiler #2	0.07	0.07	0.02	0.17	0.04	0.01

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

(18) **Emergency Generators #1, #2, and #3**

- A. CCAR shall limit the emergency generators to 500 hr/yr of operation each (calendar year basis). An hour meter shall be maintained and operated for compliance purposes. [06-096 CMR 115, BPT]
- B. The emergency generators shall only be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. The emergency generators shall not to be used for prime power when reliable offsite power is available. A log shall be maintained documenting the date, time, and reason for operation. [06-096 CMR 115, BPT]
- C. Emergency Generators #1 and #2 shall fire #2 fuel oil which meets the criteria in ASTM D396. Emergency Generator #3 shall fire only diesel fuel with a sulfur content not to exceed 0.0015% by weight. Compliance for Emergency Generators #1 and #2 shall be based on records from the supplier documenting the type of fuel delivered. Compliance for Emergency Generator #3 shall be based on fuel records from the supplier documenting the percent sulfur of the fuel delivered. [06-096 CMR 115, BPT]
- D. Emissions shall not exceed the following. [06-096 CMR 115, BPT & 06-096 CMR 103]:

Emission Unit		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Emergency Generators #1 and #2 (each)	lb/hr	0.27	0.27	1.1	6.47	3.67	1.27
Emergency Generator #3	lb/hr	0.97	0.97	0.10	18.68	4.30	0.68

E. Visible emissions from the stack shared by Emergency Generators #1 and #2 shall not exceed 30% opacity on a six (6) minute block average, except for no more than three (3), six (6) minute block averages in a continuous 3-hour period. [MEDEP Chapter 101]

F. Visible emissions from Emergency Generator #3 shall 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. [MEDEP Chapter 101]

(19) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour. [06-096 CMR 101]

(20) **General Process Sources**

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

(21) CCAR 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.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 16 DAY OF November, 2012.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Maec Allen Robert Cone for
PATRICIA W. AHO, COMMISSIONER

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

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: July 6, 2010
Date of application acceptance: August 17, 2010

Date filed with the Board of Environmental Protection:

This Order prepared by Edwin Cousins, Bureau of Air Quality

