



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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GOVERNOR

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Maine School Administrative District #29  
Houlton High School  
Aroostook County  
Houlton, Maine  
A-37-71-J-R/A

Departmental  
Findings of Fact and Order  
Air Emission License

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

Maine School Administrative District (MSAD) #29, located at 7 Bird Street, Houlton, Maine has requested to amend and renew its Maine DEP air emissions license for emissions sources associated with their educational facility. The amendment will address MSAD #29's request to install a new 2.7 MMBtu/hr wood-fired boiler.

B. Emission Equipment

The following equipment is addressed in this air emission license:

**Fuel Burning Equipment**

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type <sup>a</sup>	Stack #	Date of Installation
Boiler #1	8.8	60.3 gal/hr	#2 fuel oil, ASTM	1	2001
Boiler #2	8.8	60.3 gal/hr	#2 fuel oil, ASTM	1	2001
Boiler #3 <sup>b</sup>	2.7	0.3 tons/hr	Wood chips	3	2011

<sup>a</sup> meets the criteria in ASTM D396 for #2 fuel oil

<sup>b</sup> proposed wood-fired boiler

**Electrical Generation Equipment**

Equipment	Power Output (kW)	Maximum Capacity (MMBtu/hr)	Firing Rate (gal/hr)	Fuel Type, sulfur content
Generator #1	100	0.84	6.1	diesel fuel, 15 ppm

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

C. Application Classification

The modification of a minor source is 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 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	0.8	1.3	0.5	100
PM <sub>10</sub>	0.8	1.3	0.5	100
SO <sub>2</sub>	3.2	4.9	1.7	100
NO <sub>x</sub>	5.3	7.0	1.7	100
CO	0.5	8.5	8.0	100
VOC	0.2	0.5	0.3	50

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

D. Regulatory Review

Provided in this section is a summary of State and Federal air regulations that apply to the proposed biomass boiler and existing emission sources at MSAD #29. The school currently utilizes and has selected specific equipment that will achieve full compliance with the following State and Federal air regulations.

*06-096 CMR 101 Visible Emission Regulation*

This rule establishes opacity limitations for emissions from several categories of air contaminant sources. The two (2) existing 8.8 MMBtu/hr boilers are subject to Section (2)(B)(1)(b), which limits visible emissions from any unit firing #2 fuel oil to an opacity of 20 percent on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period.

The 100 kW diesel emergency generator is subject to Section (2)(B)(1)(d) which limits visible emissions from any stationary internal combustion engine manufactured after the year 2000 to an opacity of 20 percent on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period.

The new biomass boiler is subject to Section (2)(B)(1)(e) which limits visible emissions from any wood waste or biomass unit to an opacity of 30 percent on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period.

*06-096 CMR 103 Fuel Burning Equipment Particulate Emission Standard*

This rule applies to all fuel burning equipment that has a rated heat input capacity of 3 MMBtu per hour or greater. The two (2) existing 8.8 MMBtu/hr boilers meet the minimum heat input capacity threshold and must comply with Section 2(B)(1)(a), which establishes a PM limit of 0.12 lb/MMBtu for distillate fuel and gas-fired sources less than 50 MMBtu/hr. MSAD #29 however, is required to meet a more stringent limit of 0.08 lb/MMBtu according to its current air emission license.

*06-096 CMR 106 Low Sulfur Fuel Regulation*

This rule establishes the maximum sulfur content of fossil fuels allowed to be burned in various air quality control regions in the state unless the source is equipped with SO<sub>2</sub> controls or is subject to more stringent sulfur limitations by other requirements. MSAD #29 is subject to this rule because the two (2) existing 8.8 MMBtu/hr boilers and the 100 kW diesel emergency generator each utilize a liquid fossil fuel. As such, MSAD #29 is limited to a fuel sulfur content of 2.0% by weight in its liquid fossil fuels, however, a previous BACT analysis has placed a more stringent limit of meeting ASTM D396 requirements for #2 fuel oil and diesel fuel with a maximum sulfur content of 15 ppm burned in the diesel generator.

*06-096 CMR 115 Major and Minor Source Air Emission License Regulations*

This rule specifies who must obtain an air emission license, describes the information an applicant must submit for a license, and describes the standards and criteria that must be complied with during and following the air licensing process. For minor sources such as MSAD #29, 06-096 CMR 115 serves as an operating licensing program and a pre-construction license review program.

Federal Air Regulations

*New Source Performance Standards (NSPS)*

40 CFR Part 60 Subpart Dc – MSAD 29's existing boilers and new wood-fired unit are rated below 10 MMBtu/hr and therefore 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.

40 CFR Part 60 Subpart III, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, of the NSPS establishes the standards of performance for stationary compression ignition internal combustion engines (CI ICE). This rule specifies the emission standards, performance test requirements, notification and recordkeeping requirements and other compliance requirements for CI ICE.

- The 100 kW diesel generator is subject to Subpart III because it is a CI ICE that was ordered after July 11, 2005, manufactured after April 1, 2006, and is not a fire pump engine per §60.4200(a)(2)(i). For the purposes of Subpart III, the 100 kW diesel generator meets the definition of an “emergency stationary internal combustion engine” because its operation is limited to emergency situations and required testing and maintenance.
- *Initial Notification:* MSAD #29 is not required to submit an initial notification for the 100 kW emergency generator because it will be operated as an emergency unit per 60.4214(b).
- *Emission Standards:* Subpart III requires that owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement less than 10 liters per cylinder that are not fire pump engines to comply with the emission standards of Table 1 of the Subpart. According to Table 1, the 100 kW diesel generator must limit NO<sub>x</sub> emissions to 9.2 g/kW-hr. The Cummins Power Model DGDB Generator meets EPA Nonroad Tier 1 emission levels as listed in 40 CFR 89.112(a) which specifies a NO<sub>x</sub> limit of 9.2 g/kW-hr so this generator meets the Subpart III emissions requirements.
- *Fuel Requirements:* Because the 100 kW diesel generator will be in operation after October 1, 2010 and has a displacement less than 30 liters per cylinder, the diesel fuel must meet the requirements of 40 CFR 80.510(b) for nonroad diesel fuel which states that the per-gallon sulfur content cannot exceed 15 ppm for nonroad diesel fuel.

*National Emissions Standards for Hazardous Air Pollutants (NESHAP)*

40 CFR Part 63 Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers at Area Sources was proposed by the Environmental Protection Agency (EPA) on June 4, 2010 in 75 Federal Register 31896. If finalized as proposed, this rule would apply to the two (2) existing 8.8 MMBtu/hr boilers and the new 2.7 MMBtu/hr biomass boiler since MSAD #29 is an area source of air emissions. The existing boilers would meet the definition of an “existing source” and be required to comply with the

applicable provisions of Subpart JJJJJ no later than 3 years after publication of the final rule and the new biomass boiler would meet the definition of a “new source” and would be required to comply with the rule by the date of publication of the final rule. Because the existing boilers have a designed heat input capacity less than 10 MMBtu/hr, the compliance requirements under the proposed rule is a work practice standard for an annual tune-up.

The new biomass boiler would be subject to an emission limit of 0.03 lb PM/MMBtu and 100 ppmvd CO corrected to 7% oxygen. Initial and continuous compliance would be demonstrated through stack testing. In addition, because MSAD #29 is employing a baghouse to control PM emissions, continuous compliance would also have to be demonstrated by employing either a leak detection system on the baghouse or installing a continuous opacity monitoring system downstream of the baghouse. The baghouse proposed for installation by MSAD #29 will be equipped with a leak detection system. MSAD #29 is prepared to comply with Subpart JJJJJ if it is finalized as proposed.

40 CFR Part 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, establishes the emission limitations and operating limitations for hazardous air pollutants (HAPs) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. MSAD #29 is an area source of HAP.

The 100 kW diesel generator is subject to 40 CFR Part 63 Subpart ZZZZ because it is a stationary RICE located at an area source of HAP emissions. Since the engine was constructed before June 12, 2006 and it is located at an area source of HAP, it is considered an existing stationary RICE. According to § 63.6950(c), compression ignition stationary RICE with a rating less than or equal to 500 brake HP located at an area source must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart III, for compression ignition engines. No further requirements apply for this engine under Subpart ZZZZ. MSAD #29 will meet the requirements of Subpart ZZZZ for the 100 kW diesel generator by complying with 40 CFR Part 60 Subpart III.

## 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.

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.

B. New Wood Boiler #3

MSAD #29 is proposing to install a Kob Pyrotec 720 underfeed combustion biomass boiler. The biomass boiler will utilize wood chips and has a maximum design heat input capacity of approximately 2.7 MMBtu/hr and an energy output of 720 kW (2.46 MMBtu/hr).

Wood chips are housed in covered storage adjacent to the biomass boiler room. The scraper floor extraction system (walking floor) transports chips into the cross conveyor auger. The cross conveyor auger transports the fuel to the conveyor auger which transports the fuel to the in-feed auger of the boiler. The fuel extraction system is completely sealed and isn't expected to generate exterior dust emissions. No auxiliary fuels are required for the startup of this unit which uses an electronic igniter that blows hot air into the combustion chamber to ignite the wood on a cold start.

The Pyrotec boiler uses a burner trough with an attached external grate and a moving annealing grate to achieve optimal combustion. A feed auger moves the wood fuel into the burner trough where the fuel is pre-dried and gasified under controlled primary air. Controlled secondary air is injected to fully combust the syngas and thermal energy is released into the boiler's triple-pass heat exchanger. The flue gas will pass through a cyclone separator to remove larger particles and ash and then through a baghouse to further reduce PM emissions.

The biomass boiler will also be equipped with a baghouse capable of reducing emissions of particulate matter (PM) to a level below the emission limitation of 0.03 lb/MMBtu required for new biomass boilers in the proposed 40 CFR Part 63 Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers at Area Sources if the rule is finalized as proposed. The installation of a baghouse will allow MSAD #29 to comply with the proposed emissions limitation for the biomass boiler, however, if the proposed rule is not finalized as proposed in the 75 Federal Register 31896, MSAD #29 will reevaluate its requirements.

A detailed BACT analysis can be found in MSAD #29's October 2010 amendment application. A summary of the BACT analysis for Boiler #3 is the following:

1. The total wood fuel use for the facility is 2628 tons/year based on the heat input capacity of the boiler, a gross heating value for 40% moisture wood of 5,100 Btu/lb, and for 8760 hours per year of potential operation.
2. MSAD #29 shall continuously operate the cyclone separator on Boiler #3 when the unit is in operation. A baghouse may also be required to meet the 0.03 lb/MMBtu particulate emission limit if the federal Boiler MACT is finalized as proposed. This BACT PM emission limit can be reevaluated and possibly modified if the Boiler MACT limits are less stringent than currently proposed.
3. Fuel Burning Equipment Particulate Emission Standard, 06-096 CMR 103 (as amended) regulates PM emission limits. The PM<sub>10</sub> limits are derived from the PM limits. The PM and PM<sub>10</sub> BACT emission limits are more stringent.
4. SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emission limits are based upon AP-42 data dated 9/03.
5. Visible emissions from Boiler #3 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.

C. Existing Boilers

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.

MSAD #29 operates Boilers #1 and #2 for facility heating needs. These boilers each have maximum heat inputs less than 10 MMBtu/hr and are therefore not subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989. The school is not requesting any changes in the operational, emission or fuel limits that applied to previously licensed equipment. Boilers #1 and #2 will continue to meet a fuel cap of 125,000 gallons per year of #2 fuel oil.

A summary of the BPT analysis for Boilers #1 and #2 (8.8 MMBtu/hr each) is the following:

1. The total fuel use for the facility shall not exceed 125,000 gal/year (calendar year basis) of fuel which meets the criteria in ASTM D396 for #2 fuel oil.
2. Chapter 106 regulates fuel sulfur content, however in this case a BPT analysis for SO<sub>2</sub> determined a more stringent limit of ASTM D396 compliant fuel was appropriate and shall be used.
3. Chapter 103 regulates PM emission limits. The PM<sub>10</sub> limits are derived from the PM limits.
4. NO<sub>x</sub> emission limits are based on data from similar #2 fired 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 Stack 1 (Boilers #1 & #2) 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.

D. Existing Diesel Generator #1

MSAD #29 operates a Cummins 100 kW emergency diesel generator. Construction of the emergency generator commenced on May 4, 2006 and the Manufacturer's Built-On date is labeled as June 19, 2006. Because construction of the emergency generator commenced after July 11, 2005 and because the emergency generator was manufactured after April 1, 2006 and is not a fire pump engine, this generator is subject to 40 C.F.R. Part 60 Subpart IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. In addition, it is also subject to 40 C.F.R. Part 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

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 analysis for Generator #1 (100 kW) is the following:

1. Generator #1 shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm.
2. Generator #1 shall be limited to 100 hr/yr of operation for maintenance checks and readiness testing. Generator #1 shall be limited to 500 hours per year of total

operation. Both of these limits are based on calendar year basis. Compliance shall be demonstrated by a written log of all generator operating hours.

3. Generator #1 shall be equipped with a non-resettable hour meter.
4. 06-096 CMR 103 regulates PM emission limits. The PM<sub>10</sub> limits are derived from the PM limits.
5. NO<sub>x</sub>, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
6. MSAD #29 shall operate and maintain Generator #1 in accordance with the manufacturer's written instructions. MSAD #29 shall not change settings that are not approved in writing by the manufacturer.
7. Visible emissions from the back-up generator 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 3-hour period.

E. Annual Emissions

MSAD #29 shall be restricted to the following annual emissions, based on a calendar year basis:

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

	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Oil-fired Boilers	0.7	0.7	4.4	3.5	0.3	0.1
Wood-fired Boiler	0.5	0.5	0.4	3.0	8.0	0.3
Diesel Generator	0.1	0.1	0.1	0.5	0.2	0.1
<b>Total TPY</b>	<b>1.3</b>	<b>1.3</b>	<b>4.9</b>	<b>7.0</b>	<b>8.5</b>	<b>0.5</b>

**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 and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

Pollutant	Tons/Year
PM	25
PM <sub>10</sub>	25
SO <sub>2</sub>	50
NO <sub>x</sub>	100
CO	250

Based on the total facility licensed emissions, MSAD #29 is below the emissions level required for modeling and monitoring.

### 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,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-37-71-J-R/A 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 06-096 CMR 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. [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 and 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**

- A. Total fuel use for Boiler #1 and #2 shall not exceed 125,000 gal/yr of #2 fuel oil. Compliance shall be demonstrated by fuel records from the supplier showing the quantity and type of fuel delivered (ASTM D396 compliant). Records of annual fuel use shall be kept on a calendar year basis. [06-096 CMR 115, BPT]

- B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM	0.08	06-096 CMR 115, BPT
Boiler #2	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 <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	0.7	0.7	4.4	3.5	0.3	0.1
Boiler #2	0.7	0.7	4.4	3.5	0.3	0.1

- D. Visible emissions from Stack 1 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. [06-096 CMR 115, BPT]

(17) **Boiler #3**

A. MSAD #29 is licensed to install Boiler #3 with a maximum design heat input capacity rated at 2.7 MMBtu/hr. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #3	PM	0.03	06-096 CMR, BACT

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

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #3	0.1	0.1	0.1	0.6	1.6	0.1

D. MSAD #29 shall operate a cyclone and baghouse to control particulate emissions from Boiler #3 whenever Boiler #3 is in operation. The baghouse proposed for installation by MSAD #29 will be equipped with a leak detection system. [06-096 CMR 115, BACT]

E. Visible emissions from Boiler #3 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]

(18) **NSPS Emergency Generator #1**

A. Generator #1 shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm. [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, BPT]

- C. Generator #1 shall be limited to 100 hr/yr of operation for maintenance checks and readiness testing. Generator #1 shall be limited to 500 hours per year of total operation. Both of these limits are based on a calendar year basis. Compliance shall be demonstrated by a written log of all generator operating hours. [40 CFR 60.4211(E) and 06-096 CMR 115, BPT]
- D. Generator #1 shall be equipped with a non-resettable hour meter. [40 CFR 60.4209(a)]
- E. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator #1	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 <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.12	0.12	0.03	2.03	0.77	0.29

- G. Generator #1 is subject to PM, CO, and NO<sub>x</sub> + 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 this engine class meets the appropriate Tier standards. [40 CFR 60, Subpart III]
- H. MSAD #29 shall operate and maintain Generator #1 in accordance with the manufacturer's written instructions. MSAD #29 shall not change settings that are not approved in writing by the manufacturer. [40 CFR 60.4211(a)]
- I. Visible emissions from the emergency generator 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]

Maine School Administrative District #29  
Houlton High School  
Aroostook County  
Houlton, Maine  
A-37-71-J-R/A

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Air Emission License

- (19) MSAD #29 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 18<sup>th</sup> DAY OF February, 2011.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

  
DARRYL N. BROWN, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: November 5, 2009

Date of application acceptance: October 1, 2010

Date filed with the Board of Environmental Protection:

This Order prepared by Edwin Cousins, Bureau of Air Quality

