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**MSAD #4/RSU #80  
Piscataquis County  
Guilford, Maine  
A-68-71-I-R/A**

**Departmental  
Findings of Fact and Order  
Air Emission License  
Renewal and Amendment #1**

**FINDINGS OF FACT**

After review of the air emissions license renewal and amendment 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., §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

**I. REGISTRATION**

**A. Introduction**

MSAD #4 also known as RSU #80 or Piscataquis Community Schools have applied to renew their Air Emission License permitting the operation of emission sources associated with their educational complex. The complex consists of the Piscataquis Community Secondary School (PCSS), consisting of Grades 7-12, and the Piscataquis Community Elementary School (PCES) consisting of Grades Pre-K through 6<sup>th</sup>.

Piscataquis Community Schools are requesting an amendment to their air emission license to install two pellet boilers to replace two 1994 oil-fired Smith boilers. This project was subject to town budgeting approval which was voted and approved on June 26, 2013 with construction scheduled to commencing in early July 2013.

The phases of the project are as follows:

- Removal of the two existing 4.9 MMBtu/hr boiler (Boilers #3 and #4) located at the Elementary School
- Relocation of one existing 4.4 MMBtu/hr Boiler from the secondary school to the elementary school
- Installation of a new 2.0 wood MMBtu/hr pellet boiler and associated systems at the secondary school and a new 1.6 MMBtu/hr pellet boiler and associated systems at the elementary school.

Please note the generator listed in the original license was never installed and will not be included as part of this license.

The equipment addressed in this license is located at 9 Campus Drive, Guilford.

B. Emission Equipment

The following equipment is addressed in this air emission license:

| <u>Equipment</u>              | <u>Maximum Capacity (MMBtu/hr)</u> | <u>Maximum Firing Rate (gal/hr)</u> | <u>Fuel Type</u>              | <u>Install. Date</u>       | <u>Stack #</u> |
|-------------------------------|------------------------------------|-------------------------------------|-------------------------------|----------------------------|----------------|
| PCSS Boiler #1                | 4.4                                | 31.5 gph                            | #2 Fuel Oil                   | 2006                       | #1             |
| PCSS Boiler #2 <sup>(1)</sup> | 4.4                                | 31.5 gph                            | #2 Fuel Oil                   | 2006                       | #1             |
| PCES Boiler #3 <sup>(2)</sup> | 4.9                                | 35.0 gph                            | #2 Fuel Oil                   | 1994                       | #2             |
| PCES Boiler #4 <sup>(2)</sup> | 4.9                                | 35.0 gph                            | #2 Fuel Oil                   | 1994                       | #2             |
| PCSS Boiler #5 <sup>(3)</sup> | 2.0                                | ~245 lb/hr                          | Wood Pellets,<br>10% moisture | To Be<br>Installed<br>2013 | #3             |
| PCES Boiler #6 <sup>(3)</sup> | 1.6                                | ~198 lb/hr                          | Wood Pellets,<br>10% moisture | To Be<br>Installed<br>2013 | #4             |

Notes: (1) – To be moved from PCSS to PCES  
(2) – To Be Removed  
(3) – New Boilers

As part of this project, Piscataquis Community Schools may be installing two 0.22 MMBtu/hr Okofen pellet boilers at a future date. These smaller units will be for supplying hot water during the summer. These smaller boilers are considered insignificant per 06-096 CMR 115 and are listed for inventory purposes only.

C. Application Classification

The application for Piscataquis Community Schools includes the licensing of increased emissions and the installation of new or modified equipment. The license also includes the renewal of currently licensed emission units and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (as amended).

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 regulations.

| <u>Pollutant</u>  | <u>Future License (TPY)</u> | <u>Sig. Level</u> |
|-------------------|-----------------------------|-------------------|
| PM                | 4.63                        | 100               |
| PM <sub>10</sub>  | 4.63                        | 100               |
| SO <sub>2</sub>   | 4.65                        | 100               |
| NO <sub>x</sub>   | 9.28                        | 100               |
| CO                | 10.81                       | 100               |
| VOC               | 0.32                        | 50                |
| CO <sub>2</sub> e | <100,000                    | 100,000           |

\* CO<sub>2</sub>e was not previously addressed in the license

Future license totals include the current licensed emissions from all four oil fired boilers (based on a total facility limit of 120,000 gallons/year of #2 fuel oil) plus emissions from the two pellet boilers. Although two of the oil fired boilers will eventually be removed, emissions from the fuel fired from these boilers were included in the future license total.

This license renewal has been determined to be a renewal with 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 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.

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.

B. Boilers #1, #2, #3, and #4

All four boilers fire No. 2 fuel oil and are operated to provide heat and hot water for the buildings. Boilers #1 and #2 are rated at 4.4 MMBtu/hr and are located at the Piscataquis Community Secondary School building. Boilers #3 and #4 are located in the Piscataquis Community Elementary School building and are rated at 4.9 MMBtu/hr. Boilers #1 and #2 were installed in 2006 while Boilers #3 and #4 were installed in 1994. Boilers #1 and 2 exhaust through a common stack and Boilers #3 and #4 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 the boilers were based on the following:

#2 Fuel Oil

PM/PM<sub>10</sub>-

Boilers #1 & #2 – 0.08 lb/MMBtu/hr, 06-096 CMR 115, BACT

Boilers #3 & #4 – 0.12 lb/MMBtu, 06-096 CMR 103 (2)(B)(2)(a)

SO<sub>2</sub> – based on firing ASTM D396 compliant #2 fuel oil (0.5% sulfur); 0.5 lb/MMBtu

NO<sub>x</sub> – 20 lb/1000 gal, AP-42, Table 1.3-1, dated 5/10

CO – 5 lb/1000 gal, AP-42, Table 1.3-1, dated 5/10

VOC – 0.556 lb/1000 gal, AP-42, Table 1.3-3, dated 5/10

Opacity –

Boilers 1 & 2 - Visible emissions from each boiler firing fuel oil shall not exceed 10% opacity on a 6 minute block average, except for no more than one (1) six (6) minute block average in a 3 hour period.

[06-096 CMR 115, BACT]

Boilers 3 & 4 - 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.

[06-096 CMR 101(2)(B)(1)(b)]

The BPT emission limits for the boilers are the following:

| Pollutant | Unit            | Emission      | Originator           |
|-----------|-----------------|---------------|----------------------|
| PM/PM10   | Boilers #1 & #2 | 0.08 lb/MMBtu | 06-096 CMR 115, BACT |
| PM/PM10   | Boilers #3 & #4 | 0.12 lb/MMBtu | 06-096 CMR 103       |

| <u>Unit</u>                           | <u>PM</u><br><u>(lb/hr)</u> | <u>PM<sub>10</sub></u><br><u>(lb/hr)</u> | <u>SO<sub>2</sub></u><br><u>(lb/hr)</u> | <u>NO<sub>x</sub></u><br><u>(lb/hr)</u> | <u>CO</u><br><u>(lb/hr)</u> | <u>VOC</u><br><u>(lb/hr)</u> |
|---------------------------------------|-----------------------------|--|---|---|-----------------------------|------------------------------|
| Boiler #1<br>(4.4 MMBtu/hr) , #2 fuel | 0.35                        | 0.35                                     | 2.22                                    | 0.63                                    | 0.16                        | 0.02                         |
| Boiler #2<br>(4.4 MMBtu/hr), #2 fuel  | 0.35                        | 0.35                                     | 2.22                                    | 0.63                                    | 0.16                        | 0.02                         |
| Boiler #3<br>(4.9 MMBtu/hr), #2 fuel  | 0.59                        | 0.59                                     | 2.47                                    | 0.7                                     | 0.18                        | 0.02                         |
| Boiler #4<br>(4.9 MMBtu/hr) , #2 fuel | 0.59                        | 0.59                                     | 2.47                                    | 0.7                                     | 0.18                        | 0.02                         |

The Piscataquis Community Schools shall be limited to 60,000 gallons/yr of #2 fuel oil for Boilers #1 and #2 and 60,000 gallons/year of #2 fuel oil for Boilers #3 and #4. The Piscataquis Community Schools have been limited to 120,000 gallons/year of #2 fuel oil to stay below the reporting thresholds of Chapter 137.

Prior to January 1, 2016 or by the date otherwise stated in 38 MRSA §603-A(2)(A)(3), the #2 fuel oil fired in Boilers #1-#4 shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRSA §603-A(2)(A)(3), beginning January 1, 2016 or on the date specified in the statute, 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 or on the date specified in the statute, the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.0015% by weight (15 ppm). The specific dates contained in this paragraph reflect the current dates in the statute as of the effective date of this license; however, if the statute is revised, the facility shall comply with the revised dates upon promulgation of the statute revision.

## 2. Periodic Monitoring

Periodic monitoring for the boilers shall include recordkeeping to document fuel use on a calendar year total basis. Documentation shall include the type of fuel used and sulfur content of the fuel.

C. New Pellet Boilers – PCSS Boiler #5 and PCES Boiler #6

Piscataquis Community Schools has proposed to install two pellet boilers provided by ACT Bioenergy rated at 2.0 MMBtu/hr and 1.6 MMBtu/hr respectively. The heat content of the wood pellets is estimated to be 8150 Btu/lb (higher heating value at 10% moisture content). The new boilers are intended to become the primary heat source for both the elementary and secondary school with Boiler #5 to be located at the secondary school and Boiler #6 to be located at the elementary school. The two remaining No. 2 Fuel oil boilers (Boilers #1 & #2) will be used as back up. Boiler #5 will exhaust through Stack #3 at an above ground height of approximately 41'6" having an inside diameter of 14 inches. Boiler #6 will exhaust through Stack #4 at an above ground height of approximately 46'3" with an inside diameter of 14 inches.

Pellets will be delivered into and stored in a pellet silo and will be conveyed via flexible auger into the combustion chambers of the pellet boilers.

The ACT Bioenergy Boiler is designed as a two stage gasification process ensuring clean and complete burning of the fuel.

In the first stage, fuel fed from below and up through the center of the burner plate where the fuel is heated to about 750°F (400°C) to release all of the volatile gases contained in the fuel.

In the second stage of the process, air is injected tangentially from above the burn plate to facilitate complete combustion of the volatile gases occurring at temperatures ranging from 1650°F -2000°F in the combustion chamber. The hot exhaust gases are then sent through a heat exchanger to transfer the heat to the boiler water. The large surface area of the heat exchanger and superior insulation of the unit ensures maximum efficiency of heat transfer.

This design and controls ensure complete combustion of the fuel and result in low particulate matter emissions.

Ash is automatically scraped from the boiler and heat exchanger tubes to maintain optimal heat transfer conditions. The ash is moved by augers out of the boiler to a collection bin. Typically the ash collection bin must be emptied every 3-6 weeks.

The control system constantly monitors the oxygen level in the exhaust gases and adjusts the fan speed to achieve optimal combustion. BACT, as described below, also includes the use of a cyclone to control particulate matter emissions.

Due to the size of these 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. BACT Findings

A BACT analysis was conducted for the proposed pellet boilers. The BACT analysis included a review of EPA's RACT/BACT/LAER Clearinghouse (RBLC); EPA's AP-42 Emissions Database; State Agencies (Maine, Connecticut, New Hampshire, Vermont, Rhode Island, and Massachusetts); *Air Emissions Test Report: Small Biomass Energy System Particulate Matter Emissions Testing* by Gammie Air Monitoring, LLC and Vermont Air Pollution Control Division (June 2009); *Emission Controls for Small Wood-Fired Boilers*, produced for the U.S. Forest Service by Resource System Group (2010); *Controlling Emission from Wood Boilers* produced by the Northeast States for Coordinated Air Use Management (October 2008); and vendor information.

The following table contains recently permitted similar sources in New England:

**Summary of Comparable Licensed Sources**

| <b>Location</b>                 | <b>Heat Input (MMBtu/hr)</b> | <b>PM/PM<sub>10</sub> Control Methods</b> | <b>Permitted PM<sub>10</sub> Limit (lb/MMBtu)</b> | <b>Basis for Limit</b>                 |
|---------------------------------|------------------------------|---|---|--|
| Oakland, ME                     | 8.75                         | Multi-cyclone                             | 0.25  | BACT analysis                          |
| Houlton, ME                     | 2.7                          | Multi-cyclone & Baghouse                  | 0.03*   | Proposed Boiler MACT and BACT analysis |
| Falmouth, ME                    | 9.9                          | Multi-cyclone                             | 0.3   | BACT analysis                          |
| Skowhegan, ME                   | 6.25                         |   | 0.25  | BACT analysis                          |
| Presque Isle, ME (wood pellets) | 3.62                         | Multi-cyclone                             | 0.25  | BACT analysis                          |
| Waterville, ME (wood pellets)   | 5.1                          | Multi-cyclone                             | 0.23  | BACT Analysis                          |
| Somers, CT                      | 25.1                         | ESP                                       | 0.1   | BACT analysis                          |
| Paxton, MA (wood pellets)       | 7.0                          | Multi-cyclone                             | 0.1   | BACT analysis                          |
| Salisbury, CT                   | 26.7                         | ESP                                       | 0.057   | BACT analysis                          |
| Glocester, RI                   | 4.6                          | High Efficiency Multi-cyclone             | 0.20  | BACT analysis                          |

|                    |           |                               |      |  |
|--------------------|-----------|-------------------------------|------|--|
| North Scituate, RI | 9.1       | High Efficiency Multi-cyclone | 0.10 | BACT analysis                                |
| Groton, MA         | 12        | Cyclone & Baghouse            | 0.10 | State Emission Limit                         |
| Keene, NH          | 6.7       | ESP                           | 0.30 | State Emission Limit                         |
| Montpelier, VT     | 6.7 & 9.3 | ESP                           | 0.20 | Most Stringent Emission Rate (MSER) Analysis |

- \* Note: The Houlton, ME facility installed the baghouse to meet the proposed Boiler MACT, with a condition that the PM emissions limit could be reevaluated and possibly modified if the Boiler MACT limits were less stringent than proposed. The numeric limit was removed from the MACT prior to finalization.

The following summarizes the BACT findings for Boilers #5 & #6:

PM/PM<sub>10</sub> – Particulate emissions from fuel combustion are formed from incomplete combustion of the fuel and non-combustible material in the fuel. Potential particulate matter controls for wood-fired boilers consists of add-on controls, combustion of clean fuels, good combustion practices, or a combination of options.

The evaluation of add-on controls for this boiler included mechanical collectors, dry electrostatic precipitators (ESPs), baghouses (fabric filters), electrostatic recyclones, and wet scrubbers.

Mechanical collectors separate particulate matter from an exhaust stream utilizing centrifugal force. Types of mechanical collectors include single cyclones, multi-cyclones, high efficiency multi-cyclones (HEMCs), and core separators. Single cyclones and multi-cyclones remove a large portion of larger particles and a smaller portion of smaller particles. Traditionally, for single cyclones and multi-cyclones the design control efficiency is met only at maximum load when a higher pressure drop is achieved. High efficiency multi-cyclones have a higher collection efficiency due to use of a higher pressure drop, however, this results in greater energy demands. In addition, a test on a smaller wood boiler with a high efficiency multiclone in North Scituate, RI resulted in a low capture efficiency when operated at low loads. Core Separator™ is a specific control design that maintains a relatively high pressure drop at all operating loads, but it is a high cost option. A mechanical cyclone separator is feasible for boilers #5 and #6. This cyclone separator is considered BACT for PM control.

Dry electrostatic precipitators (ESPs) consist of charging particles in the exhaust stream with a high voltage, charging a collection surface where the particles accumulate with an opposite charge, removing the collected dust by a rapping process, and collecting the dust in hoppers. An electrostatic precipitator was determined not to be economically feasible due to high capital costs for boilers of this size.

Baghouses collect particulate matter on the surface of filter bags which are periodically cleaned or replaced to maintain a high removal efficiency. Historically, baghouses have not been selected for small wood boilers due to fire hazards and the potential for filter bag clogging. Financial and technical resources are needed not only to purchase the baghouse and replacement filter bags, but to service the unit to proactively prevent fire and/or clogging problems. Due to the cost and uncertainty of operational issues of baghouses on wood fired boilers of this size, baghouses were not considered BACT for Boilers #5 and #6.

An electrostatic cyclone consists of a single cyclone coupled with an electrified cylindrical chamber. The electrified chamber exhaust is re-circulated back to the cyclone causing particle agglomeration. As the agglomeration gets larger, particles are more likely to be captured by the cyclone component of the system. These types of units are installed in Europe, but none are currently operating in the United States and were not considered as BACT for Boilers #5 and #6.

Wet scrubbers consist of using particle inertia and pressure to transfer particles from the gas stream to a liquid stream using a wet spray. The liquid is purged and the particles removed. A wet scrubber was found to be infeasible due to the economics of the capital and ongoing operational costs; as well as the environmental issues of make-up water requirements and disposal. No wet scrubbers were found to be operational on smaller wood fired units. Wet scrubbers were not considered BACT for this project.

BACT for particulate matter emissions from Boiler #5 and #6 is the use of the efficient new ACT Bioenergy boiler coupled with a cyclone separator, good combustion practices, and the following emission limits:

| <b>Boiler</b> | <b>PM Emission Limit</b> | <b>PM<sub>10</sub> Emission Limit</b> | <b>Emission Limit Basis</b>           |
|---------------|--------------------------|---------------------------------------|---------------------------------------|
| #5            | 0.46 lb/hr               | 0.46 lb/hr                            | 06-096 CMR 115, BACT, (0.23 lb/MMBtu) |
| #6            | 0.41 lb/hr               | 0.41 lb/hr                            | 06-096 CMR 115, BACT, (0.23 lb/MMBtu) |

The limits are more stringent than the particulate matter limit found in *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (as amended).

SO<sub>2</sub> – Sulfur dioxide (SO<sub>2</sub>) is formed from the combustion of sulfur present in the fuel. Control options for SO<sub>2</sub> include removing the sulfur from the flue gas by adding a caustic scrubbing solution or restricting the sulfur content of the fuel. Wood is an inherently low sulfur content fuel. A wet scrubbing system, with associated annual operating costs for caustic, energy, operation, and maintenance, is economically infeasible for this size boiler.

BACT for SO<sub>2</sub> emissions from Boilers #5 & #6 shall be the utilization of clean, wood pellets (a low sulfur fuel) and the following emission limits:

| Boiler | SO <sub>2</sub> Emission Limit | Emission Limit Basis                         |
|--------|--------------------------------|--|
| #5     | 0.05 lb/hr                     | AP-42 Table 1.6, dated 9/03 (0.025 lb/MMBtu) |
| #6     | 0.04 lb/hr                     | AP-42 Table 1.6, dated 9/03 (0.025 lb/MMBtu) |

NO<sub>x</sub> – Nitrogen oxide (NO<sub>x</sub>) is generated from fuel NO<sub>x</sub> and thermal NO<sub>x</sub>. Reducing NO<sub>x</sub> formation includes firing a low nitrogen content fuel to minimize fuel NO<sub>x</sub> and maintaining specific combustion temperatures to minimize thermal NO<sub>x</sub>. Add-on NO<sub>x</sub> control options consist of selective catalytic reduction (SCR) and selective non-catalytic reduction (SNCR). Combustion control techniques for NO<sub>x</sub> emission reductions include staged combustion, burner modifications, low excess firing air, flue gas recirculation, and combustion of clean fuels.

Add-on SCR and SNCR controls are primarily used on large industrial and utility boilers. SCR and SNCR reduce NO<sub>x</sub> emissions through the injection of urea or ammonia in the gas exhaust stream under specific temperature ranges; specifically 1600-2100°F for SNCR and 575-800°F for SCR. The specific temperature range requirements, the need for a continuously high operating load, and the cost for SNCR and SCR do not make it feasible for these controls to be installed on Boilers #5 & #6.

BACT for NO<sub>x</sub> emissions from Boilers #5 & #6 shall be the installation of a new, efficient boiler, good combustion and maintenance practices (including automated operating controls, equipment sensors, tune-ups,

raking the grates as needed and staged combustion), the use of clean wood fuel, and the following emission limits:

| Boiler | NO <sub>x</sub> Emission Limit | Emission Limit Basis                        |
|--------|--------------------------------|---|
| #5     | 0.98 lb/hr                     | AP-42 Table 1.6, dated 9/03 (0.49 lb/MMBtu) |
| #6     | 0.86 lb/hr                     | AP-42 Table 1.6, dated 9/03 (0.49 lb/MMBtu) |

CO – Carbon monoxide (CO) emissions are a result of incomplete combustion, caused by conditions such as insufficient residence time or limited oxygen availability. CO emissions from boilers are typically minimized by good combustion, although oxidation catalyst systems have been used on larger units.

BACT for CO emissions from Boiler #5 & #6 shall be the installation of a new, efficient boiler, good combustion and maintenance practices (including automated operating controls, equipment sensors, tune-ups, raking the grates as needed and staged combustion), the use of clean wood fuel, and the following emission limits:

| Boiler | CO Emission Limit | Emission Limit Basis                       |
|--------|-------------------|--|
| #5     | 1.20 lb/hr        | AP-42 Table 1.6, dated 9/03 (0.6 lb/MMBtu) |
| #6     | 1.06 lb/hr        | AP-42 Table 1.6, dated 9/03 (0.6 lb/MMBtu) |

VOC – Volatile organic compound (VOC) emissions are a result of incomplete combustion. Add-on controls for VOC emissions include thermal oxidizers, oxidation catalysts, and venturi scrubbers. However, VOC emissions from boilers are typically minimized by good combustion.

BACT for VOC emissions from Boilers #5 & #6 shall be the installation of a new, efficient boiler, good combustion and maintenance practices (including automated operating controls, equipment sensors, tune-ups, raking the grates as needed and staged combustion), the use of clean wood fuel, and the following emission limits:

| Boiler | VOC Emission Limit | Emission Limit Basis                         |
|--------|--------------------|--|
| #5     | 0.03 lb/hr         | AP-42 Table 1.6, dated 9/03 (0.017 lb/MMBtu) |
| #6     | 0.03 lb/hr         | AP-42 Table 1.6, dated 9/03 (0.017 lb/MMBtu) |

GHG – Greenhouse gas (GHG) emissions are minimized from small to mid-sized units by the use of lower carbon content fuel. Wood chips are classified as biogenic and EPA has deferred addressing biogenic (wood/biomass) related GHG emissions for at least another two years until they have completed an analysis of the carbon neutrality of various types of biogenic fuels. Based on the size and efficiency of the boiler, and the corresponding estimated small potential GHG emissions from the unit, no specific GHG emission limits are required for Boilers #5 & #6 at this time.

Opacity - Visible emissions from Boilers# 5 & #6 shall each 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.

Additional BACT findings –

The requirements applicable to Boilers #5 & #6 in 40 CFR Part 63, Subpart JJJJJ, including work practice standards and compliance, recordkeeping, and reporting requirements shall be considered BACT for Boiler #5 & #6.

Periodic Monitoring -

Periodic monitoring for Boilers #5 & #6 shall include recordkeeping to document fuel deliveries on a calendar year basis.

2. 40 CFR Part 63 Subpart JJJJJ

Boilers #1, #2, #3, #4, #5 and #6 are 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 #1 through #4 are considered existing oil boilers rated less than 10 MMBtu/hr. Upon installation, Boilers #5 and #6 will be considered new biomass boilers because they are to be installed after June 4, 2010.

For informational purposes, a summary of the currently applicable federal 40 CFR Part 63 Subpart JJJJJ requirements is listed below. At this time, the Department has not taken delegation of this area source MACT (Maximum Achievable Control Technology) rule promulgated by EPA, however the boilers located at the Piscataquis Community Schools are 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 is due no later than January 20, 2014 for the existing boilers and within 120 days after the new pellet boilers start up. [40 CFR Part 63.11225(a)(2)]

ii. Boiler Tune-Up Program

(a) A boiler tune-up program shall be implemented to include the initial tune-up of applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(1)]

Note: new sources that have applicable work practice standards or management practices are not required to complete an initial performance tune-up. [40 CFR Part 63.11210(f)]

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

1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [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. Delay of the inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [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 by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis

before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 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 30 days of start-up. [40 CFR Part 63.11223(b)(7)]
  
- (c) After conducting the initial boiler tune-up, a Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [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 (called a Notification of Compliance Status) has been submitted.
  1. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

| <b>Boiler Category</b>  | <b>Tune-Up Frequency</b> |
|---|--------------------------|
| New or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with less frequent tune up requirements" listed below | Every 2 years            |
| <b><i>New and Existing Oil, Biomass, and Coal fired Boilers with less frequent tune up requirements</i></b>                                   |                          |
| Seasonal (see definition §63.11237)   | Every 5 years            |
| Limited use (see definition §63.11237)  | Every 5 years            |
| Existing and New Oil boiler with a heat input capacity of <5MMBtu/hr  | Every 5 years            |
| Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up             | Every 5 years            |

[40 CFR Part 63.11223(a) and Table 2]

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 at high fire or typical operating load, 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 types and amounts of fuels 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.

Note: EPA will require submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system. However, the system will not be in place until October 2013, so sources may submit the written NOCS to the EPA Administrator. [63.1125(a)(4)(vi)]

D. Fugitive and General Process Emissions

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

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

E. Annual Emissions

1. Total Annual Emissions

Piscataquis Community Schools shall be restricted to the following annual emissions, based on a calendar year. The tons per year emission limits were calculated based on 120,000 gal/yr of ASTM D396 compliant #2 fuel oil and

based on Boilers #5 & #6 burning pellets with a 10% moisture and 8150 Btu/lb (or equivalent) for 8,760 hr/yr at their design capacity:

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

|                  | <b>PM</b>   | <b>PM<sub>10</sub></b> | <b>SO<sub>2</sub></b> | <b>NO<sub>x</sub></b> | <b>CO</b>   | <b>VOC</b>  |
|------------------|-------------|------------------------|-----------------------|-----------------------|-------------|-------------|
| Boilers #1 & #2  | 0.34        | 0.34                   | 2.12                  | 0.6                   | 0.15        | 0.02        |
| Boilers #3 & #4  | 0.50        | 0.50                   | 2.12                  | 0.6                   | 0.15        | 0.02        |
| Boilers #5       | 2.01        | 2.01                   | 0.22                  | 4.29                  | 5.26        | 0.15        |
| Boiler #6        | 1.78        | 1.78                   | 0.19                  | 3.79                  | 4.64        | 0.13        |
| <b>Total TPY</b> | <b>4.63</b> | <b>4.63</b>            | <b>4.65</b>           | <b>9.28</b>           | <b>10.2</b> | <b>0.32</b> |

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through ‘Tailoring’ revisions made to EPA’s *Approval and Promulgation of Implementation Plans*, 40 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 (CO<sub>2</sub>e).

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, Piscataquis Community Schools is below the major source threshold of 100,000 tons of CO<sub>2</sub>e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

### III. AMBIENT AIR QUALITY ANALYSIS

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

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

The total facility licensed emissions 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-68-71-I-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 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 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 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 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) **PCSS Boilers #1 & #2**

**A. Fuel**

1. Total fuel use for Boilers # 1 & #2 shall not exceed 60,000 gal/yr of #2 fuel oil, based on a calendar year. [06-096 CMR 115, BPT]
2. Prior to January 1, 2016 or the date specified in 38 MRSA §603-A(2)(A)(3), 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]
3. Beginning January 1, 2016 or on the date specified in 38 MRSA §603-A(2)(A)(3), 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)]
4. Beginning January 1, 2018 or on the date specified in 38 MRSA §603-A(2)(A)(3), 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)]
5. 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 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, BACT |
| Boiler #2     | PM        | 0.08     | 06-096 CMR 115, 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 #1     | 0.35       | 0.35                     | 2.22                    | 0.63                    | 0.16       | 0.02        |
| Boiler #2     | 0.35       | 0.35                     | 2.22                    | 0.63                    | 0.16       | 0.02        |

D. Visible emissions from Boilers #1 & 2 shall each 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 115, BACT]

(17) **PCES Boilers #3 & #4**

A. Fuel

- Total fuel use for Boilers #3 & #4 shall not exceed 60,000 gal/yr of #2 fuel oil based on a calendar year basis.
- Prior to January 1, 2016 or on the date specified in 38 MRSA §603-A(2)(A)(3), the #2 fuel oil fired in the boilers shall be ASTM D396 compliant (max. sulfur content of 0.5% by weight). [06-096 CMR 115, BPT]
- Beginning January 1, 2016 or on the date specified in 38 MRSA §603-A(2)(A)(3), 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)]
- Beginning January 1, 2018 or on the date specified in 38 MRSA §603-A(2)(A)(3), 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)]
- 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 calendar year basis. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

| Unit      | Pollutant | lb/MMBtu | Origin and Authority       |
|-----------|-----------|----------|----------------------------|
| Boiler #3 | PM        | 0.12     | 06-096 CMR 103(2)(B)(1)(a) |
| Boiler #4 | PM        | 0.12     | 06-096 CMR 103(2)(B)(1)(a) |

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

| <u>Unit</u>                         | <u>PM</u><br><u>(lb/hr)</u> | <u>PM<sub>10</sub></u><br><u>(lb/hr)</u> | <u>SO<sub>2</sub></u><br><u>(lb/hr)</u> | <u>NO<sub>x</sub></u><br><u>(lb/hr)</u> | <u>CO</u><br><u>(lb/hr)</u> | <u>VOC</u><br><u>(lb/hr)</u> |
|-------------------------------------|-----------------------------|--|---|---|-----------------------------|------------------------------|
| Boiler #3<br>(4.9 MMBtu/hr) #2 fuel | 0.59                        | 0.59                                     | 2.47                                    | 0.7                                     | 0.18                        | 0.02                         |
| Boiler #4<br>(4.9 MMBtu/hr) #2 fuel | 0.59                        | 0.59                                     | 2.47                                    | 0.7                                     | 0.18                        | 0.02                         |

D. Visible Emissions

Visible emissions from Boilers #3 & #4 shall 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. [06-096 CMR 101]

E. Upon shutdown and removal of Boilers #3 and #4, as part of the installation of the pellet boilers #5 and #6, this license condition shall no longer be valid.

(18) **PCSS Boiler #5 & PCES Boiler #6**

A. Piscataquis Community Schools shall install and operate cyclone separators for particulate control on Boilers #5 and #6. Piscataquis shall maintain a monthly inspection log detailing all routine and non-routine maintenance on the cyclones. The log shall include the date and maintenance description. [06-096 CMR 115, BACT]

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

| <u>Unit</u>                                | <u>PM</u><br><u>(lb/hr)</u> | <u>PM<sub>10</sub></u><br><u>(lb/hr)</u> | <u>SO<sub>2</sub></u><br><u>(lb/hr)</u> | <u>NO<sub>x</sub></u><br><u>(lb/hr)</u> | <u>CO</u><br><u>(lb/hr)</u> | <u>VOC</u><br><u>(lb/hr)</u> |
|--|-----------------------------|--|---|---|-----------------------------|------------------------------|
| Boiler #5<br>(2 MMBtu/hr) , wood pellets   | 0.46                        | 0.46                                     | 0.05                                    | 0.98                                    | 1.2                         | 0.03                         |
| Boiler #6<br>(1.6 MMBtu/hr) , wood pellets | 0.41                        | 0.41                                     | 0.04                                    | 0.86                                    | 1.06                        | 0.03                         |

C. Piscataquis Community Schools shall comply with all the requirements of 40 CFR Part 63, Subpart JJJJJ applicable to Boilers #5 & #6 including, but not limited to, the following:

1. Piscataquis Community Schools shall submit an Initial Notification to EPA no later than January 20, 2014 for the existing boilers and within 120 days after the startup of each new pellet boiler.  
[40 CFR Part 63.11225(a)(2)]

2. Piscataquis Community Schools shall implement a boiler tune-up program. The first biennial tune-up for Boilers #5 & #6 must be no later than 25 months after the initial startup. Thereafter, Piscataquis Community Schools must conduct tune-ups of the boilers biennially to demonstrate continuous compliance as specified in 63.11223(b)(1)-(7). Each biennial tune-up must be conducted no more than 25 months after the previous tune-up.  
[40 CFR Part 63.11223(b)]
  3. 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 at high fire or typical operating load, 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 types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)]
  4. Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJ including the following: 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 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.  
[40 CFR Part 63.11225(c)]
- D. Compliance shall be demonstrated by fuel records from the supplier showing the quantity of the fuel delivered. Records of annual fuel use shall be kept on a calendar year basis. [06-096 CMR 115, BACT]
- E. Visible emissions from each boiler firing wood pellets shall not exceed 20% opacity on a 6 minute block average, except for no more than two six (6) minute block averages in a 3 hour period. [06-096 CMR 101]
- F. Ash from Boilers #5 and #6 shall be disposed of in accordance with the Department's Bureau of Remediation and Waste Management (BRWM). Ash shall be sufficiently conditioned with water or transported in covered containers so as to prevent fugitive emissions. [06-096 CMR 115, BPT]

(19) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles, roadways, and the delivery and handling of wood pellets) 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) Piscataquis Community Schools 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 14 DAY OF August, 2013.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Corne 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 of this license, 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: May 3, 2013

Date of application acceptance: May 14, 2013

Date filed with the Board of Environmental Protection:

This Order prepared by Lisa P. Higgins, Bureau of Air Quality.

