Gould Academy
Oxford County
Bethel, Maine
A-721-71-E-R/A

Departmental
Findings of Fact and Order
Air Emission License
Renewal and Amendment

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 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

Gould Academy has applied to renew their Air Emission License permitting the operation of emission sources associated with their educational facility.

In addition, Gould Academy has requested to amend its license in order to incorporate the addition of two new propane fired boilers installed in 2011. Part of this amendment includes a reduction in the fuel use limit for No.2 Fuel oil, the addition of a propane fuel use limit, an update of the boiler CO and VOC emission factors from boilers firing No. 2 Fuel oil and an update of the generator emission factors. Boilers #1-#3 were renumbered in this license to reflect the numbering system at the facility. Boiler #3 is actually the largest unit, labelled Boiler #1 in previous licenses.

The equipment addressed in this license is located at 39 Church Street, Bethel, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (gal/hr)	Fuel Type, % sulfur	Install. Date	Location	Stack #
Boiler #1	6.3	45	#2 Oil, 0.5% Sulfur	1962	Bingham Hall	1
Boiler #2	6.3	45	#2 Oil, 0.5% Sulfur	1962	Bingham Hall	1
*Boiler #3	10.5	75	#2 Oil, 0.5% Sulfur	1998	Bingham Hall	1
Boiler #4	2.7	20	#2 Oil, 0.5% Sulfur	1998	Dining Hall	2
Boiler #5	2.7	20	#2 Oil, 0.5% Sulfur	1998	Dining Hall	2
Boiler #6	5.0	55	Propane	2011	Farnsworth Fieldhouse	3
Boiler #7	5.0	55	Propane	2011	Farnsworth Fieldhouse	3

* Boiler #1 in previous licenses

Generators

Equipment	Maximum Design Capacity KW	Firing Rate (gal/hr)	Fuel Type	Install. Date	Stack #
Generator #1	80	10.6	Propane	1998	4

C. Application Classification

The application for Gould Academy does not include the licensing of increased emissions. However, it does include the licensing of new equipment. Therefore, the license is considered to be a renewal processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (CMR) 115 (as amended). In addition, the installation of new equipment is determined to be a minor modification and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 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.

Before proceeding with the control requirements for each unit, a general process description is provided to identify where the equipment fits into the process.

B. Boilers #1 - #7

Gould Academy operates Boilers #1 through #7 for heat and hot water needs of the educational facility. Boilers #1 and #2 are located in Bingham Hall and were manufactured by Kewanee Boilers in 1962. Boilers #1 and #2 each have a maximum design heat input capacity of 6.3 MMBtu/hr firing #2 fuel oil.

Boiler #3 is located in Bingham Hall and has a maximum design heat input capacity of 10.5 MMBtu/hr firing #2 fuel oil. Boiler #3 was manufactured by Burnham Boilers in 1997. Boiler #3 is subject to EPA New Source Performance Standards (NSPS) 40 CFR Subpart Dc, for boilers with a heat input of 10 MMBtu/hr or greater and manufactured after June 9, 1989.

Boilers #4 and #5 are located in the dining hall. Boilers #4 and #5 were manufactured by Smith Boilers in 1997 and each have a maximum design heat input capacity of 2.7 MMBtu/hr firing #2 fuel oil.

Boilers #6 and #7 are located in the Farnsworth Fieldhouse on 74 Church Street. Boilers #6 and #7 were manufactured by Locinvar in 2011 and each have a maximum design heat input capacity of 5 MMBtu/hr firing propane.

Due to the size of the boilers #1, #2, #4, #5, #6 and #7, 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/BPT Findings

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

#2 Fuel Oil (Boilers #1-#5)

PM/PM_{10}	–	0.12 lb/MMBtu based on 06-096 CMR 103
SO_2	–	based on firing ASTM D396 compliant #2 fuel oil (0.5% sulfur); 0.5 lb/MMBtu
NO_x	–	0.3 lb/MMBtu based on AP-42, Table 1.3-1, dated 5/10
CO	–	5 lb/1000 gal based on AP-42, Table 1.3-1, dated 5/10
VOC	–	0.34 lb/1000 gal based on AP-42, Table 1.3-3, dated 5/10
Opacity	–	previous BACT

The BPT emission limits for the boilers 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)
Boiler #1 (6.3 MMBtu/hr), #2 fuel	0.76	0.76	3.17	1.89	0.23	0.02
Boiler #2 (6.3 MMBtu/hr), #2 fuel	0.76	0.76	3.17	1.89	0.23	0.02
Boiler #3 (10.5 MMBtu/hr), #2 fuel	1.26	1.26	5.29	3.15	0.38	0.04
Boiler #4 (2.7 MMBtu/hr), #2 fuel	0.22	0.22	1.36	0.81	0.10	0.01
Boiler #5 (2.7 MMBtu/hr), #2 fuel	0.22	0.22	1.36	0.81	0.10	0.01

Visible emissions from Boiler Stack #1 (exhaust from Boilers #1,#2, and #3) and Boiler Stack #2 (exhaust from Boilers #4 and #5) 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.

Gould Academy shall be limited to an annual fuel limit of 500,000 gallons of #2 fuel oil.

Prior to July 1, 2016 or by the date otherwise stated in 38 MRSA §603-A(2)(A)(3), the #2 fuel oil fired at the facility 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 July 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.

Propane (New Boilers, #6 & #7)

BACT Findings

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

PM/PM_{10}	–	0.05 lb/MMBtu based on 06-096 CMR 115, BACT
SO_2	–	0.018 lb/1000 gallons based on AP-42, Table 1.5-1, dated 7/08
NO_x	–	13 lb/1000 gallons based on AP-42, Table 1.5-1, dated 7/08
CO	–	7.5 lb/1000 gallons based on AP-42, Table 1.5-1, dated 7/08
VOC	–	1 lb/1000 gallons based on AP-42, Table 1.5-1, dated 7/08
Opacity	–	06-096 CMR 115, BACT

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #6 (5 MMBtu/hr) propane	0.25	0.25	0.01	0.72	0.41	0.06
Boiler #7 (5 MMBtu/hr) propane	0.25	0.25	0.01	0.72	0.41	0.06

Visible emissions from Stack #3 (combined exhaust of Boilers #6 and #7) shall not exceed 10% opacity on a 6 minute block average basis, except for no more than one (1) six (6) minute block average in a 3 hour period.

Gould Academy shall be limited to an annual fuel use of 300,000 gallons of propane.

2. Periodic Monitoring

Periodic monitoring for the boilers shall include recordkeeping to document #2 Fuel Oil and propane used on a calendar year basis.

3. 40 CFR Part 63 Subpart JJJJJJ

Boilers #1-#5 are subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJJ). Boiler #3, is considered an existing oil boiler rated greater than 10 MMBtu/hr and as such will have additional requirements.

Boilers #1, #2, #4, and #5, are considered existing oil boilers, rated less than 10 MMBtu/hr.

Gas-fired boilers, including propane fired units, are exempt from 40 CFR Part 63, Subpart JJJJJJ. However, boilers which fire #2 fuel oil are not. A "gas-fired boiler" is defined as any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. Thus Boilers #6 and #7 are exempt from this rule since they can only burn propane. [40 CFR Part 63.11237]

For informational purposes, a summary of the currently applicable federal 40 CFR Part 63 Subpart JJJJJJ 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 Gould Academy 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 is due no later than January 20, 2014. [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)]

(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:

Boiler Category	Tune-Up Frequency
Boilers #1, #2, and #3	Every 2 years
Boilers #4 and #5, with a heat input capacity of <5MMBtu/hr	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)]

iii. Energy Assessment

Boiler #3 may be subject to the energy assessment requirement as follows:

(a) A one-time energy assessment shall be performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(3)]

(b) The energy assessment shall include a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation

measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.
[40 CFR Part 63, Table 2(4)]

(c) 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(c)]

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJJ 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 requires the submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system (www.epa.gov/cdx). A link and guidance documents for these reports can be found at www.epa.gov/boilercompliance.

C. Generator #1

Gould Academy operates one emergency generator, Generator #1. The emergency generator is rated at 0.78 MMBtu/hr and fires propane. The generator was manufactured and installed in 1998. The emission factors were updated to the most current AP-42 emission factors for natural gas since EPA has not published emission factors for engines firing propane

1. BPT Findings

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

PM/PM_{10}	- 0.05 lb/MMBtu, 06-096 CMR 115, BPT
SO_2	- 0.001 lb/MMBtu
NO_x	- 3.17 lb/MMBtu from AP-42, Table 3.2-1 dated 7/2000

CO - 0.39 lb/MMBtu from AP-42, Table 3.2-1 dated 7/2000
VOC - 0.12 lb/MMBtu from AP-42, Table 3.2-1 dated 7/2000
Opacity - 06-096 CMR 101

The BPT emission limits for the generator 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)
Generator #1 (0.78 MMBtu/hr), propane	0.04	0.04	0.001	2.47	0.3	0.09

Visible emissions from Generator #1 shall not exceed an opacity of 10% on a 6-minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period.

The emergency generator is only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. The emergency generator is not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity. At present, Gould Academy is not participating in an emergency demand response program. Gould Academy shall keep records of the hours of operation of the unit.

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 generator listed above. The unit is considered existing, emergency stationary reciprocating internal combustion engines at an area HAP source; however, it is considered exempt from the requirements of Subpart ZZZZ since it is categorized as an institutional emergency engine and does not operate or is not contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii).

Operation of the emergency generator such that each exceeds 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), would cause the generator to be subject to 40 CFR Part 63, Subpart ZZZZ.

D. Annual Emissions

1. Total Annual Emissions
   Gould Academy shall be restricted to the following annual emissions, based on a calendar year. The tons per year limits were calculated based on the following:
   a. Gould Academy shall fire no more than 500,000 gallons per year of #2 fuel oil based on a calendar year basis in the facility's boilers.
   b. Gould Academy shall fire no more than 300,000 gallons per year of propane based on a calendar year basis in the facility's boilers.
   c. Emission calculations for Generator #1 are based on an annual operational limit of 100 hours during non-emergency situations and the use of propane

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

	PM	PM_{10}	SO_2	NO_x	CO	VOC
Boilers #1-#5	4.2	4.2	17.63	10.5	1.25	0.09
Boiler #6 & #7	0.68	0.68	0.01	1.95	1.13	0.15
Generator #1	0.01	0.01	0.01	0.12	0.02	0.01
Total TPY	**4.89**	**4.89**	**17.65**	**13.07**	**2.45**	**0.26**

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_2e).

Based on the Gould Academy's fuel use limits, 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, Gould Academy is below the major source threshold of 100,000 tons of CO_2e 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:

Pollutant	Tons/Year
PM_{10}	25
SO_2	50
NO_x	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-721-71-E-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) **Boiler #1-#5**

A. Fuel

1. Total fuel use by Boilers #1-5 shall not exceed 500,000 gal/yr of #2 fuel oil, based on a calendar year basis. [06-096 CMR 115, BPT]
2. Prior to July 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 July 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	0.12	06-096 CMR 103(2)(B)(1)(a)
Boiler #2	PM	0.12	06-096 CMR 103(2)(B)(1)(a)
Boiler #3	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

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)
Boiler #1	0.76	0.76	3.17	1.89	0.23	0.02
Boiler #2	0.76	0.76	3.17	1.89	0.23	0.02
Boiler #3	1.26	1.26	5.29	3.15	0.38	0.04
Boiler #4	0.22	0.22	1.36	0.81	0.10	0.01
Boiler #5	0.22	0.22	1.36	0.81	0.10	0.01

D. Visible emissions from Boiler Stack #1 (exhaust from Boilers #1,#2, and #3) and Boiler Stack #2 (exhaust from Boilers #4 and #5) 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 115, BPT]

E. Gould Academy shall comply with all requirements of 40 CFR Part 60, Subpart Dc applicable to Boiler #3 including, but not limited to, the following:

1. Gould Academy shall submit notification to EPA and the Department of the date of construction, anticipated start-up, and actual start-up. This notification shall include the design heat input capacity of the boilers and the type of fuel to be combusted. [40 CFR §60.48c(a)]
2. Gould Academy shall record and maintain records of the amounts of each fuel combusted monthly and include the fuel supplier certification. The fuel supplier certification must contain the name of the oil supplier and a statement from the oil supplier that the oil complies with ASTM specifications for #2 fuel oil. [40 CFR §60.48c(g)]

3. Gould Academy shall submit to EPA and the Department semi-annual reports. These reports shall include the calendar dates covered in the reporting period and records of fuel supplier certifications. The semi-annual reports are due within 30 days of the end of each 6-month period.
4. The following address for EPA shall be used for any reports or notifications required to be copied to them:

   Compliance Clerk
   USEPA Region 1
   5 Post Office Sq. Suite 100
   Boston, MA 02109-3912

F. Gould Academy shall comply with all requirements of 40 CFR Part 63, Subpart JJJJJJ applicable to Boilers #1-5 including, but not limited to, the following:
   1. Gould Academy shall submit an initial notification to EPA and the Department due no later than January 20, 2014. [06-096 CMR 115, BPT and 40 CFR Part 63.11225(a)(2)]
   2. A boiler tune-up program, as described in 40 CFR Part 63.11223, 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) and 63.11223(b)]

   3. Subsequent to its initial tune-ups, Gould Academy shall conduct tune-ups of its boilers at a frequency specified below:

Boiler Category	Tune-Up Frequency
Boilers #1, #2, and #3	Every 2 years
Boilers #4 and #5, with a heat input capacity of <5MMBtu/hr	Every 5 years

   [06-096 CMR 115, BPT and 40 CFR Part 63.11223(a) and Table 2]

   4. 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. 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.
   [06-096 CMR 115, BPT, and 40 CFR Part 63.11223(b)(6) and 63.11225(b)]

5. A one-time Energy Assessment shall be conducted on Boiler #3 including a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from the affected boiler and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. The one-time energy assessment shall be performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014
[06-096 CMR 115, BPT, 40 CFR Part 63, Table 2(4) and 40 CFR Part 63.11196(a)(3)]]

7. After conducting the initial boiler tune-up and/or the energy assessment a Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [06-096 CMR 115, BPT, and 40 CFR Part 63.11225(a)(4), 40 CFR Part 63.11214(c)]

8. Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJJ 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(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.
[06-096 CMR 115, BPT, and 40 CFR Part 63.11225(c)]:

(17) **Boilers #6-#7**

A. Fuel

Total fuel use for Boilers #6 and #7 shall not exceed 300,000 gal/yr of propane based on a calendar year.

B. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #6	PM	0.05	06-096 CMR 115, BACT
Boiler #7	PM	0.05	06-096 CMR 115, BACT

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

Emission Unit	**PM (lb/hr)**	**PM_{10} (lb/hr)**	**SO_2 (lb/hr)**	**NO_x (lb/hr)**	**CO (lb/hr)**	**VOC (lb/hr)**
Boiler #6	0.25	0.25	0.01	0.72	0.41	0.06
Boiler #7	0.25	0.25	0.01	0.72	0.41	0.06

D. Visible Emissions

Visible emissions from Stack #3 shall not exceed 10% opacity on a 6 minute block average basis, except for no more than one (1) six (6) minute block average in a 3 hour period. [06-096 CMR 115, BACT]

(18) **Emergency Generator #1**

A. The generator is limited to 100 hours per year of non-emergency operation, based on a calendar year total. Compliance shall be demonstrated by a written log of all generator operating hours. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator #1	PM	0.05	06-096 CMR 115, BPT

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

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1 (0.78 MMBtu/hr), propane	0.04	0.04	0.001	2.47	0.3	0.09

D. Visible Emissions

Visible emissions from Generator #1 shall not exceed 10% opacity on a 6 minute block average basis, except for no more than one (1) six (6) minute block average in a 3 hour period. [06-096 CMR 115, BPT]

E. The emergency generator is only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. The emergency generator is not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from

standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity.

1. Non-Resettable Hour Meter
   A non-resettable hour meter shall be installed and operated the generator. [06-096 CMR 115, BPT , and 40 CFR §63.6625(f)]

2. Maintenance, Testing, and Non-Emergency Operating Situations

   a. The generator shall be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity unless the conditions in §63.6640(f)(4)(ii) are met). These limits are based on a calendar year. Compliance shall be demonstrated by a written log of all generator operating hours. [06-096 CMR 115, BPT and 40 CFR §63.6640(f)]

   b. Gould Academy shall keep records that include maintenance conducted on the generator and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the generator is operated during a period of demand response or deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), Gould Academy must keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [06-096 CMR 115, BPT and 40 CFR §63.6655(e) and (f)]

(19) Gould Academy 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 24 DAY OF January , 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc 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 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: 10/24/2012
Date of application acceptance: 10/29/2012

Date filed with the Board of Environmental Protection:

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

Filed
JAN 27 2014
State of Maine
Board of Environmental Protection