STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

Penobscot Job Corps Center **Penobscot County** **Bangor, Maine** **A-944-71-C-R**	**Departmental** **Findings of Fact and Order** **Air Emission License** **Renewal**

FINDINGS OF FACT

After review of the air emission license renewal application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

The Penobscot Job Corps Center (PJC) has applied to renew their Air Emission License for the operation of emission sources associated with their training facility. The PJC offers training to students in culinary arts, construction and business.

Previously, PJC was limited to an annual facility-wide limit of 250,000 gallons of distillate fuel, which equated to an annual limit of approximately 33,000,000 standard cubic feet of natural gas. Given that all boilers have been converted to fire natural gas exclusively, this annual facility-wide limit is being removed.

The equipment addressed in this license is located at 1375 Union Street in Bangor, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license. Since the issuance of PJCs last license (A-944-71-B-N) in 2012, all PJC boilers have been converted from firing distillate fuel to firing natural gas. Although the ratings of the natural gas burners retrofitted into the boilers are slightly less than the maximum rated boiler capacities, for purposes of this license, the boilers are listed with the rated capacity of the boiler (i.e., boilerplate rating).

Boilers

Equipment	Location	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (scf/hour)	Fuel Type	Installation Date
Boiler #1	Union Street	1.68	1631	Natural Gas	2001
Boiler #2	Union Street	1.68	1631	Natural Gas	2001
Boiler #3	Dow Lane	1.68	1631	Natural Gas	2001
Boiler #4	Dow Lane	1.68	1631	Natural Gas	2001
Boiler #5	Rec Center	2.79	2708	Natural Gas	1994
Boiler #6	Rec Center	1.20	1165	Natural Gas	2006
Boiler #7	Female Dorm	2.79	2708	Natural Gas	1994
Boiler #8	Female Dorm	1.82	1767	Natural Gas	2004
Boiler #9	Male Dorm	2.79	2708	Natural Gas	1994
Boiler #10	Male Dorm	1.82	1767	Natural Gas	2003
Boiler #11	Dining Commons	2.84	2757	Natural Gas	1994

PJC also operates the following natural gas fired equipment which are identified as insignificant activities as listed in 06-096 C.M.R. ch. 115 Appendix B(B)(2) and are listed for informational purposes only:

Boilers

Equipment	Location	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (scf/hour)	Fuel Type	Installation Date
Boiler #12	Dining Commons	0.79	767	Natural Gas	2004
Boiler #13	Dow Lane	0.27	262	Natural Gas	2010

C. Application Classification

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

The application for PJC does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of currently licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115.

Because PJC's maximum annual emissions are below the major source thresholds for all criteria pollutants, PJC is considered to be a true minor source.

PJC is licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of HAP.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

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

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

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

B. Boilers #1 - #11

Boilers #1 through #11 each have maximum design heat input capacities ranging from approximately 1.2 to 2.8 MMBtu/hr. The boilers were manufactured between 1994 and 2004 and fire natural gas exclusively. The boilers are used to supply heat and hot water for PJC's campus buildings and dormitories.

1. BPT Findings

The BPT emission limits for Boilers #1 - #11 were based on the following:

PM/PM_{10}	0.05 lb/MMBtu, based on 06-096 C.M.R. ch. 115, BPT
SO_2	0.6 lb/MMscf, based on AP-42, Table 1.4-2, dated 7/98
NO_x	100 lb/MMscf, based on AP-42, Table 1.4-1, dated 7/98
CO	84 lb/MMscf, based on AP-42, Table 1.4-1, dated 7/98
VOC	5.5 lb/MMscf, based on AP-42, Table 1.4-2, dated 7/98
Visible Emissions	06-096 C.M.R. ch. 115, BPT

The BPT emission limits for Boilers #1 - #11 are the following:

Equipment	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	0.1	0.1	0.1	0.2	0.1	0.1
Boiler #2	0.1	0.1	0.1	0.2	0.1	0.1
Boiler #3	0.1	0.1	0.1	0.2	0.1	0.1
Boiler #4	0.1	0.1	0.1	0.2	0.1	0.1
Boiler #5	0.1	0.1	0.1	0.3	0.2	0.1
Boiler #6	0.1	0.1	0.1	0.1	0.1	0.1
Boiler #7	0.1	0.1	0.1	0.3	0.2	0.1
Boiler #8	0.1	0.1	0.1	0.2	0.1	0.1
Boiler #9	0.1	0.1	0.1	0.3	0.2	0.1
Boiler #10	0.1	0.1	0.1	0.2	0.1	0.1
Boiler #11	0.1	0.1	0.1	0.3	0.2	0.1

Visible emissions from each boiler stack shall not exceed 10% opacity on a six-minute block average basis.

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

   Due to the size of their maximum heat inputs, Boilers #1 - #11 are each 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/hour manufactured after June 9, 1989. [40 C.F.R. §60.40c]

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

   Boilers #1 - #11 are exclusively natural gas fired boilers, as defined in 40 C.F.R. §63.11237, and are located at an area source of HAP, as defined in §63.2. As such, Boilers #1 - #11 are each not subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJJ. [40 C.F.R. §63.11195 (e)]

C. Shop Emissions

PJC also operates wood-working equipment in two shop areas of their facility that emit particulate emissions to the outside. The table saw, jointer, planer, router, and sweep tray exhaust through dust collection equipment and cyclones. PJC shall limit visible emissions and particulate by operating and maintaining the dust collection and cyclone equipment.

PJC shall maintain the dust collectors to limit visible emissions from the shop areas to 10% opacity or less on a six-minute block-average basis.

D. Annual Emissions

1. Total Annual Emissions

PJC shall be restricted to the following annual emissions, on a calendar-year basis. The tons per year limits were calculated based on PJC's boilers each operating 8,760 hours/year.

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

Equipment	PM	PM_{10}	SO_2	NO_x	CO	VOC
Boilers #1 - #11, Combined	4.9	4.9	0.1	9.6	8.2	0.5
Total TPY	**4.9**	**4.9**	**0.1**	**9.6**	**8.2**	**0.5**

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

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 C.M.R. 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).

The quantity of CO_2e emissions from this facility is less than 100,000 tons per year, based on the following:

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

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

III. AMBIENT AIR QUALITY ANALYSIS

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

Pollutant	Tons/Year
PM	25
PM_{10}	25
SO_2	50
NO_x	100
CO	250

The total licensed annual emissions for PJC 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-944-71-C-R subject to the following conditions.

Severability. The invalidity or unenforceability of any provision of this License or part thereof shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S. § 347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 C.M.R. ch. 115]

(3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 C.M.R. ch. 115]

(4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 C.M.R. ch. 115]

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115]

(6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 115]

(7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 115]

(8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 C.M.R. ch. 115]

(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 C.M.R. ch. 115]

(10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 C.M.R. ch. 115]

(11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:

A. Perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:

1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or

2. Pursuant to any other requirement of this license to perform stack testing.

B. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. Submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 C.M.R. ch. 115]

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

A. Within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department; and

B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such

alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions. [06-096 C.M.R. ch. 115]

(13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 C.M.R. ch. 115]

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 C.M.R. ch. 115]

(15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 C.M.R. ch. 115]

SPECIFIC CONDITIONS

(16) **Boilers #1 - #11**

A. Fuel

Boilers #1 - #11 shall fire natural gas only. [06-096 C.M.R. ch. 115, BPT]

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

Equipment	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	0.1	0.1	0.1	0.2	0.1	0.1
Boiler #2	0.1	0.1	0.1	0.2	0.1	0.1
Boiler #3	0.1	0.1	0.1	0.2	0.1	0.1
Boiler #4	0.1	0.1	0.1	0.2	0.1	0.1
Boiler #5	0.1	0.1	0.1	0.3	0.2	0.1
Boiler #6	0.1	0.1	0.1	0.1	0.1	0.1
Boiler #7	0.1	0.1	0.1	0.3	0.2	0.1
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Boiler #9	0.1	0.1	0.1	0.3	0.2	0.1
Boiler #10	0.1	0.1	0.1	0.2	0.1	0.1
Boiler #11	0.1	0.1	0.1	0.3	0.2	0.1

C. Visible emissions from each boiler stack shall each not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

(17) **Shop Emissions**

A. PJC shall operate and maintain the dust collection system and maintain cyclones according to manufacturer's specification for particulate control. [06-096 C.M.R. ch. 115, BPT]

B. Prior to use, PJC shall conduct a visual inspection of the dust collection system to assure proper operation. [06-096 C.M.R. ch. 115, BPT]

C. PJC shall maintain a log on-site, which contains the date and description of maintenance and/or repairs of the dust collection system that resulted from the visual inspections. PJC shall also maintain documentation that the maintenance and/or repairs have been performed in accordance with their Standard Operating Procedure manual. [06-096 C.M.R. ch. 115, BPT]

D. Visible Emissions from the dust collection system shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

(18) PJC shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S. § 605).

DONE AND DATED IN AUGUSTA, MAINE THIS 4 DAY OF June , 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for
PAUL MERCER, COMMISSIONER

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

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: August 7, 2017
Date of application acceptance: August 14, 2017

Date filed with the Board of Environmental Protection:

This Order prepared by Kevin J Ostrowski, Bureau of Air Quality.

Filed
JUN 04 2018
State of Maine
Board of Environmental Protection