Kennebec River Development Park, LLC
Kennebec County
Winslow, Maine
A-800-71-E-R/M

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

FINDINGS OF FACT

After review of the air emission license renewal with 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

Kennebec River Development Park, LLC (KRDP) has applied to renew their Air Emission License permitting the operation of emission sources associated with their industrial storage and warehouse facility.

KRDP has requested a minor revision to their license in order to convert Heaters #1 and #2 from distillate fuel to propane.

The equipment addressed in this license is located at 100 Benton Ave, Winslow, Maine.

B. Definitions

Distillate Fuel means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396, diesel fuel oil numbers 1 or 2, as defined in ASTM D975, kerosene, as defined in ASTM D3699, biodiesel as defined in ASTM D6751, or biodiesel blends as defined in ASTM D7467.

C. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (gal/hr)	Fuel Type, % sulfur
Heater #1	4.1	44.0	propane, negligible
Heater #2	4.1	44.0	propane, negligible
Heater #3	2.2	15.6	distillate fuel, 0.5%
Heater #4	1.25	9.0	distillate fuel, 0.5%
Heater #5	1.25	9.0	distillate fuel, 0.5%
Heater #6	1.25	9.0	distillate fuel, 0.5%
Heater #7	1.25	9.0	distillate fuel, 0.5%
Heater #8	1.25	9.0	distillate fuel, 0.5%
Heater #9	1.25	9.0	distillate fuel, 0.5%
Heater #10	1.0	7.0	distillate fuel, 0.5%
Heater #11	1.0	7.0	distillate fuel, 0.5%
Heater #12	1.0	7.0	distillate fuel, 0.5%
Heater #13	1.0	7.0	distillate fuel, 0.5%
Heater #14	1.25	9.0	distillate fuel, 0.5%

D. Application Classification

The application for KRDP does not include the licensing of increased emissions or the installation of new or modified equipment. The change to the fuel fired in Heaters #1 and #2 will result in an emission increase of less than 4 ton/year for each single pollutant, not including greenhouse gases (GHG), and less than 8 ton/year for all pollutants combined, not including GHG. Therefore, the license is considered to be a renewal with a minor revision and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (CMR) 115 (as amended). With the annual fuel limit on the distillate fuel-fired heaters, the facility 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 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment.

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. Heaters

KRDP operates 14 air heaters to prevent freezing of the facility's sprinkler system and for employee comfort. Heaters #1 and #2 have recently been converted from firing distillate fuel to propane. All other heaters are distillate fuel-fired. The heaters are of various sizes, all less than 10 MMBtu/hr.

1. BACT/BPT Findings

The BACT/BPT emission limits for the heaters were based on the following:

Heaters #1 & #2 (firing propane)

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

Heaters #3 - #14 (firing distillate fuel)

PM/PM_{10}	–	0.08 lb/MMBtu based on 06-096 CMR 115, BPT
SO_2	–	based on firing distillate fuel with a maximum sulfur content of 0.5% by weight
NO_x	–	20 lb/1000 gal 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	–	06-096 CMR 101

The BACT/BPT emission limits for the heaters are the following:

Unit	Pollutant	lb/MMBtu
Heater #1	PM	0.05
Heater #2	PM	0.05

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Heater #1	0.20	0.20	–	0.57	0.33	0.04
Heater #2	0.20	0.20	–	0.57	0.33	0.04
Heater #3	0.17	0.17	1.10	0.31	0.08	0.01
Heater #4	0.10	0.10	0.63	0.18	0.04	–
Heater #5	0.10	0.10	0.63	0.18	0.04	–
Heater #6	0.10	0.10	0.63	0.18	0.04	–
Heater #7	0.10	0.10	0.63	0.18	0.04	–
Heater #8	0.10	0.10	0.63	0.18	0.04	–
Heater #9	0.10	0.10	0.63	0.18	0.04	–
Heater #10	0.08	0.08	0.50	0.14	0.04	–
Heater #11	0.08	0.08	0.50	0.14	0.04	–
Heater #12	0.08	0.08	0.50	0.14	0.04	–
Heater #13	0.08	0.08	0.50	0.14	0.04	–
Heater #14	0.10	0.10	0.63	0.18	0.04	–

Visible emissions from Heaters #1 and #2 shall each not exceed 10% opacity on a 6-minute block average.

Visible emissions from Heaters #3 - #14 shall each 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.

KRDP shall be limited to 500,000 gallons per year of distillate fuel based on a calendar year. There is no limit to the propane firing in Heaters #1 and #2.

Fuel Sulfur Content Requirements

Heaters #3 - #14 are licensed to fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Per 38 M.R.S.A. §603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use in Heaters #3 - #14 shall not exceed 0.0015% by weight (15 ppm).

2. 40 CFR Part 60, Subpart Dc

Due to the size of the heaters 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.

3. 40 CFR Part 63, Subpart JJJJJJ

The heaters covered by this license do not heat water. They do not meet the definition of "boiler" and are therefore not subject to *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJJ).

C. Annual Emissions

1. Total Annual Emissions
KRDP shall be restricted to the following annual emissions, based on a calendar year. The tons per year limits were calculated based on unlimited firing of propane in Heaters #1 and #2 and a distillate fuel oil limit of 500,000 gal/year.

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
Heater #1	0.9	0.9	–	2.5	1.5	0.2
Heater #2	0.9	0.9	–	2.5	1.5	0.2
Heaters #3-#14	2.8	2.8	17.6	5.0	1.3	0.1
Total TPY	**4.6**	**4.6**	**17.6**	**10.0**	**4.3**	**0.5**

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).

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

- the facility's fuel use limits;
- 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 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 licensed annual 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 licensed annual emissions for the facility 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-800-71-E-R/M subject to and 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) **Heaters**

A. Fuel

1. Heaters #1 and #2 are licensed to fire propane. [06-096 CMR 115, BACT]
2. Total fuel use for Heaters #3 - #14 shall not exceed 500,000 gal/yr of distillate fuel, based on a calendar year total basis. [06-096 CMR 115, BPT]

3. Prior to July 1, 2018, the facility shall fire distillate fuel with a maximum sulfur content not to exceed 0.5% by weight. [06-096 CMR 115, BPT]
4. Beginning July 1, 2018, the facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm). [06-096 CMR 115, BPT]
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 monthly and calendar year total basis. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

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

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

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Heater #1	0.20	0.20	–	0.57	0.33	0.04
Heater #2	0.20	0.20	–	0.57	0.33	0.04
Heater #3	0.17	0.17	1.10	0.31	0.08	0.01
Heater #4	0.10	0.10	0.63	0.18	0.04	–
Heater #5	0.10	0.10	0.63	0.18	0.04	–
Heater #6	0.10	0.10	0.63	0.18	0.04	–
Heater #7	0.10	0.10	0.63	0.18	0.04	–
Heater #8	0.10	0.10	0.63	0.18	0.04	–
Heater #9	0.10	0.10	0.63	0.18	0.04	–
Heater #10	0.08	0.08	0.50	0.14	0.04	–
Heater #11	0.08	0.08	0.50	0.14	0.04	–
Heater #12	0.08	0.08	0.50	0.14	0.04	–
Heater #13	0.08	0.08	0.50	0.14	0.04	–
Heater #14	0.10	0.10	0.63	0.18	0.04	–

D. Visible emissions from Heaters #1 and #2 shall each not exceed 10% opacity on a 6-minute block average. [06-096 CMR 115, BACT]

E. Visible emissions from Heaters #3 - #14 shall each 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]

(17) KRDP 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 3 DAY OF December , 2015.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for
AVERY T. DAY, ACTING 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 M.R.S.A. §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: 10/29/15
Date of application acceptance: 11/3/15

Date filed with the Board of Environmental Protection:

This Order prepared by Lynn Muzzey, Bureau of Air Quality.

Filed
DEC 04 2015
State of Maine
Board of Environmental Protection