



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

Maine Department of Corrections
d/b/a Long Creek Youth
Development Center
Cumberland County
South Portland, Maine
A-321-71-N-R/M (SM)

Departmental
Findings of Fact and Order
Air Emission License
Renewal/Minor Revision

After review of the air emissions license renewal and minor revision 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 Department finds the following facts:

I. REGISTRATION

A. Introduction

Maine Department of Corrections, Long Creek Youth Development Center (Long Creek) has applied to renew their Air Emission License permitting the operation of emission sources associated with their South Portland facility.

Long Creek has requested a minor revision in addition to renewal to their license in order to replace Boiler 1 in Purinton Hall with two smaller boilers.

The equipment addressed in this license is located at 675 Westbrook Street, South Portland, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (scf/hr)	Fuel Type, % sulfur	Install. Date	Stack #
Boiler 2 LCY Development Ctr	2.6	2510	Natural Gas, negligible	2001	5
Boiler 3 LCY Development Ctr	4.3	4185	Natural Gas, negligible	2001	5

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04679-2094
(207) 764-0477 FAX: (207) 760-3143

Boiler 1 Purinton Hall was formerly listed in this Table, is not longer in operation and has been replace by two Weil-McLain Ultra 750 Commercial Natural Gas Fired Hot Water Heating Boilers, each with a heat input capacity of 0.75 MMBtu/hr. Since these two boilers are below the 1 MMBtu/hr licensing threshold, they are considered insignificant per *Appendix B of 06-096 CMR 115*.

Generators

Equipment	Firing Rate (gal/hr)	Maximum capacity (mmbtu/hr)	Horse Power (HP)	Fuel Type, % sulfur	Install. Date	Stack #
Generator 1 Purinton Hall	8	1.12	160	Diesel, 0.05% S	1979	1
Generator 2 LCY Development Center	58.8	8.03	1145	Diesel, 0.05% S	2000	3
Generator 3 LCY Development Center	58.8	8.03	1145	Diesel, 0.05% S	2000	4

C. Application Classification

The application for Long Creek 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 current licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations, 06-096 CMR 115* (as amended). This license removes the previously licensed Purinton Hall Boiler. Although this boiler was replaced, the replacement boilers are considered insignificant and are not licensed. With an operating hours restriction on the emergency generators, the facility is licensed below the major source thresholds and is considered a synthetic minor.

The boiler replacement will not increase emissions of any pollutant. Therefore, this modification is determined to be a minor revision 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 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. Boiler 2

Long Creek operates Boiler 2 for building heat and hot water. The boiler is rated at 2.6 MMBtu/hr and fires natural gas (2510 scf/hr). The boiler was installed in 2001 and exhausts through stack 5 which it shares with Boiler 3.

Due to the size, the boiler is not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989.

40 CFR Part 63 Subpart JJJJJ, *National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers*, does not apply to boilers firing natural gas.

1. BACT/BPT Findings

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

PM/PM ₁₀	– 7.6 lb/10 ⁶ scf: AP-42, Table 1.4-2 (dated 7-98)
SO ₂	– 0.6 lb/10 ⁶ scf: AP-42, Table 1.4-2 (dated 7-98)
NO _x	– 100 lb/10 ⁶ scf: AP-42, Table 1.4-1 (dated 7-98)
CO	– 84 lb/10 ⁶ scf: AP-42, Table 1.4-1 (dated 7-98)
VOC	– 5.5 lb/10 ⁶ scf: AP-42, Table 1.4-2 (dated 7-98)

Opacity – Visible emissions from the combined stack (stack #5) shall not exceed 10% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a 3 hour period (whether one or both boilers are operating).

Periodic Monitoring

Periodic monitoring for the boiler shall include recordkeeping to document fuel use on an annual basis.

C. Boiler 3

Long Creek operates Boiler 3 for building heat and hot water. The boiler is rated at 4.3 MMBtu/hr and fires natural gas (4185 scf/hr). The boiler was installed in 2001 and exhausts through stack 5 which it shares with Boiler 2.

Due to the size, the boiler is not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989.

40 CFR Part 63 Subpart JJJJJ, *National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers*, does not apply to boilers firing natural gas.

1. BACT/BPT Findings

The BACT/BPT emission limits for the boiler were based 1020 Btu/scf heat content for natural gas are as follows:

- PM/PM₁₀ – 0.12 lb/MMBtu; 06-096 CMR 103
- SO₂ – 0.6 lb/10⁶ scf: AP-42, Table 1.4-2 (dated 7-98)
- NO_x – 100 lb/10⁶ scf: AP-42, Table 1.4-1 (dated 7-98)
- CO – 84 lb/10⁶ scf: AP-42, Table 1.4-1 (dated 7-98)
- VOC – 5.5 lb/10⁶ scf: AP-42, Table 1.4-2 (dated 7-98)
- Opacity – Visible emissions from the combined stack (stack #5) shall not exceed 10% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a 3 hour period (whether one or both boilers are operating).

Periodic Monitoring

Periodic monitoring for the boiler shall include recordkeeping to document fuel use on an annual basis.

D. Back-up Generator 1

Long Creek operates 3 back-up generators. Generator 1 in Purinton Hall is rated at 1.12 MMBtu/hr and fires diesel fuel (8 gal/hr). The generator was manufactured in 1979 and exhausts through its own stack.

1. BACT/BPT Findings

The BACT/BPT emission limits for the generator are based on a sulfur content of 0.05%, and a 500 hour/year operating limit:

PM	- 0.31 lb/MMBtu from AP-42 Table 3.3-1 (dated 10/96)
SO ₂	-based on firing 0.0015% sulfur, 0.002 lb/MMBtu;
NO _x	- 4.41 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96);
CO	- 0.95 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96);
VOC	- 0.35 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96);
Opacity	- Visible emissions from each of the diesel emergency generators shall not exceed 30% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a 3 hour period.

E. Back-up Generators 2 and 3

Generators 2 and 3, each rated at 8.03 lb/MMBtu, fire 58.6 gal/hr of diesel fuel, and were both manufactured in 2000. Generators 2 and 3 exhaust through separate stacks (stacks 3 and 4).

1. BACT/BPT Findings

The BACT/BPT emission limits for the generators are based on the following:

Diesel

PM	- 0.12 lb/MMBtu; 06-096 CMR 103
SO ₂	-based on firing 0.0015% sulfur, 0.002 lb/MMBtu; based on firing
NO _x	- 3.2 lb/MMBtu, AP-42, Table 3.4-1 (dated 10/96);
CO	- 0.85 lb/MMBtu, AP-42, Table 3.4-1 (dated 10/96);
VOC	- 0.09 lb/MMBtu, AP-42, Table 3.4-1 (dated 10/96);

Opacity – Visible emissions from each of the diesel emergency generators shall not exceed 30% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a 3 hour period.

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator # 1 (1.12 MMBtu/hr), Diesel	0.35	0.35	0.06	4.94	1.06	0.39
Generator # 2 (8.03 MMBtu/hr), Diesel	0.96	0.96	0.41	25.7	6.83	0.72
Generator # 3 (8.03 MMBtu/hr), Diesel	0.96	0.96	0.41	25.7	6.83	0.72

Each of the generators shall be limited to 500 hours of operation a year, based on a 12 month rolling total. Long Creek shall keep records of the hours of operation for each unit.

2. 40 CFR Part 63, Subpart ZZZZ

If Long Creek’s generators are institutional emergency stationary reciprocating internal combustion engines as defined by 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines* then they are not subject to the requirements of Subpart ZZZZ. However, since Long Creek is participating in a demand response Program they are subject to certain requirements under Subpart ZZZZ.

Emergency stationary reciprocating internal combustion engine (RICE) is defined in 40 CFR Part 63, Subpart ZZZZ as any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc. Stationary RICE used for peak shaving are not considered emergency stationary RICE. Stationary RICE used to supply power to an electric grid or that supply non-emergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under §63.6640(f).

§63.6640(f) limits maintenance checks and readiness testing of the units to 100 hours per year. Emergency stationary RICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph, as long as the power provided by the financial arrangement is limited to emergency power.

On October 15th, 2009, Long Creek obtained a minor revision (A-321-71-M-M) to its air emission license to participate in the ISO New England Demand Response Program.

ISO Demand Response:

Due to the potential for tight electricity supplies, ISO New England has taken several precautionary steps to ensure the reliability of the region-wide bulk power system. One of those steps is the implementation of the Demand Response Program. This program offers financial incentives to customers, such as Long Creek, to reduce electricity demand during peak periods. This program can significantly improve the reliability of the region-wide bulk power system and hopefully allow ISO New England to avoid drastic measures, such as brown outs.

In order for Long Creek to participate in the Demand Response Program, they need to start their generators and run them prior to, or in lieu of, loss of off-site power. Long Creek will only operate in this manner if there is a documented request from ISO New England under their emergency OP-4

procedures. ISO New England's OP-4 is a procedure which establishes criteria and guidelines for actions during capacity deficiencies. OP-4 is implemented when there is determined to be a serious threat to the integrity of the bulk power system.

Long Creek was permitted to operate their generators in response to an OP-4 emergency for a total of no more than 50 hours per calendar year.

As of March 2012, the emergency engine definition found Subpart ZZZZ limits engines to 15 hours of operation as part of an ISO New England Emergency Demand Response program. In response to several lawsuits and petitions, EPA has filed a notice of a proposed settlement agreement (77 FR 282-284) *"to allow owners and operators of emergency stationary internal combustion engines to operate emergency stationary internal combustion engines in emergency conditions, as defined in those regulations, as part of an emergency demand response program for 60 hours per year or the minimum hours required by Independent System Operator tariff, whichever is less."* Under the terms of the proposed settlement agreement, EPA is to finalize this action by December 14, 2012.

If EPA does not amend Subpart ZZZZ, which currently limits OP-4 operation of emergency engines to 15 hours/year (each) after May 3, 2013, then Long Creek will be required to meet the applicable emission and operating limitations for non-emergency units.

If designated as non-emergency engines, Long Creek shall comply with the following applicable emission and operating limitations by May 3, 2013:

Generator 1

	Operating Limitations*
Generator 1 - 160 HP (<300 at an area source)	(40 CFR §63.6603(a), 63.6625(e), 63.6625 (h) and Table 2(d), Table 6)
Compression ignition (diesel fuel oil) unit	<ul style="list-style-type: none"> - Change oil and filter every 1000 hours of operation or annually, whichever comes first; - Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first; - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary

* Note: Due to the 500 hour operation limit on each generator, the inspections and oil/filter changes shall be performed annually to meet the requirements of 40 CFR Part 63, Subpart ZZZZ

Long Creek must operate and maintain the engine according to the manufacturer's emission-related written instructions or develop their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e) & Table 6]

Long Creek must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which the non-startup emission limits apply. [40 CFR §63.6625(h)]

Generator 2 and 3

Generator 2 & 3 1145 HP (> 500 HP at an area source)	(40 CFR §63.6603(a), §63.6625(g), §63.6625 (h) and Table 2(d))
Compression ignition (diesel): Generator 2 & 3	Limit CO to 23 ppmvd at 15% O2 or reduce CO by 70% or more (unit is > 500 hp)
	Existing non-emergency engines ≥ 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (1) or (2) of this section: (1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or (2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.

Long Creek shall comply with testing and initial compliance requirements for generators 2 and 3. [40 CFR §63.6612, §63.6615, §63.6620 §63.6625, §63.6630, Tables 3, 4, and 5]

Long Creek shall comply with continuous compliance requirements.
[40 CFR §63.6635, and §63.6640]

Long Creek shall comply with the notifications, reports, and recordkeeping requirements.

[40 CFR §63.6645, §63.6650, §63.6655, §63.6660 and Table 7]

Long Creek will be evaluating whether the units will need to be retrofitted to meet the CO requirements and the cost associated with any modifications. If, by the compliance date of May 3, 2013, Long Creek concludes that the units will be operated strictly as emergency generators as defined in the rule instead on non-emergency, then the units will be exempt from the requirements of 40 CFR 63 ZZZZ because they will meet the definition of existing, stationary institutional emergency engines.

F. Annual Emissions

1. Long Creek shall be restricted to the following annual emissions, based on a 12 month rolling total. The tons per year limits were calculated based on 500 hrs/yr for generators:

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
Boiler 2	0.1	0.1	0.01	1.1	0.9	0.1
Boiler 3	2.3	2.3	0.01	1.8	1.5	0.1
Generator 1	0.09	0.09	0.01	1.2	0.3	0.1
Generator 2	0.2	0.2	0.1	6.4	1.7	0.2
Generator 3	0.2	0.2	0.1	6.4	1.7	0.2
Total TPY	2.9	2.9	0.2	16.9	6.1	0.7

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) means the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Greenhouse gases (GHG) for purposes of licensing are calculated and reported as carbon dioxide equivalents (CO₂ 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, Long Creek is below the major source threshold of 100,000 tons of CO₂ e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling is not required for a renewal if the total emissions of any pollutant released do not exceed the following and there are no extenuating circumstances:

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

Based on the total facility licensed emissions, Long Creek is below the emissions level required for modeling.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-321-71-N-R/M 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 emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) **Boiler 2**

A. Fuel

1. Natural Gas fired boiler 2 (2.6 MMBtu/hr) shall not exceed the following emission limits: [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 2	0.02	0.02	0.002	0.25	0.21	0.01

- B. Visible emissions from Boiler 2 shall 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 101]

(17) **Boilers 3**

A. Fuel

Natural Gas fired boiler 3 (4.3 MMBtu/hr) shall not exceed the following emission limits: [06-096 CMR 115, BPT]:

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

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler 3	0.52	0.52	0.003	0.42	0.35	0.02

- B. Visible emissions from Boiler 3 firing fuel oil shall not exceed 10% opacity on a six (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]

(18) **Back-up generators 1, 2 & 3**

- A. The diesel-fired generators are each limited to 500 hours per year total operation, based on a 12 month rolling total. Within the 500 hour per year operating limit, it shall be limited to no more than 50 hours in response emergency peak load reduction operation for each generator based on a 12 month rolling total. [06-096 CMR 115, BPT]
- B. Long Creek shall only operate the back up generators for periods of maintenance and readiness testing, for situations arising from sudden and reasonably unforeseeable events beyond the control of the source, emergencies when off-site power is unavailable, and ISO New England OP-4 Emergencies.
- C. A non-resettable hour meter shall be operated and maintained on each unit. Records shall be kept to document compliance with the hours of operation limit. [06-096 CMR 115, BPT]

- D. A log documenting the dates, times and reason of operation for the back-up generators shall be maintained. Records of OP-4 emergencies shall be kept. This shall include the date which the generators were operated, start time and stop time for each generator, and documentation that Long Creek was contacted by ISO New England and asked to reduce consumption as part of an OP-4 event. [06-096 CMR 115, BPT]
- E. Fuel
1. The facility shall fire diesel with a maximum sulfur content limit of 0.0015% by weight (15 ppm). [06-096 CMR 115, BPT]
 2. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, and the percent sulfur of the fuel delivered (if applicable). [06-096 CMR 115, BPT]
- F. Emissions from the generators shall not exceed the following [06-096 CMR 115, BPT]:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
Generator 2	PM	0.12	06-096 CMR 103(2)(B)(1)(a)
Generator 3	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Generator 1 (1.12 MMBtu/hr), diesel	0.3	0.3	0.06	4.9	1.1	0.4
Generator 2 (8.03 MMBtu/hr), diesel	1.0	1.0	0.4	25.7	6.8	0.7
Generator 3 (8.03 MMBtu/hr), diesel	1.0	1.0	0.4	25.7	6.8	0.7

- G. Visible emissions from each of the diesel generators shall not exceed 30% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a 3 hour period. [06-096 CMR 101]
- H. By May 3, 2013, Long Creek shall determine if their generators meet the definition of emergency in 40 CFR Part 63, Subpart ZZZZ. If the generators meet this definition than they are not subject to Subpart ZZZZ. If the engines are deemed to be non-emergency engines than they shall meet the applicable requirements of 40 CFR Subpart ZZZZ. [40 CFR Part 63, Subpart ZZZZ]

Maine Department of Corrections
d/b/a Long Creek Youth
Development Center
Cumberland County
South Portland, Maine
A-321-71-N-R/M (SM)

17

Departmental
Findings of Fact and Order
Air Emission License
Renewal/Minor Revision

- (19) Long Creek 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 30th DAY OF April, 2012.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Melanie L. Lavoie
PATRICIA W. AHO, COMMISSIONER

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 4/6/2010

Date of application acceptance: 4/26/2010

Date filed with the Board of Environmental Protection:

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

