



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

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COMMISSIONER

**Hillandale Farms Conn, LLC
Androscoggin County
Turner, Maine
A-163-71-K-R/A (SM)**

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

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

I. REGISTRATION

A. Introduction

Hillandale Farms Conn, LLC (Hillandale Farms) has applied to renew their Air Emission License permitting the operation of emission sources associated with their agricultural facility.

Hillandale Farms has also requested an amendment to their license in order to address each change in the following table.

Units	Adjustments
Plant 4, Generator #1 Brooders 3-4 Generator	Replace Plant 4, Generator #1 from previous license with Brooders 3-4 Generator.
Plant 3, Unit 1 Plant 3, Unit 2	Change Maximum Capacity values
Plant 1, Unit 1 Plant 1, Unit 2 Plant 8, Unit 1	License previously installed boilers.
Generators	Update and change values to accurately represent generator capacity and age information.

The equipment addressed in this license is located at 272 Plains Road in Turner, Maine.

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 04769
(207) 764-0477 FAX: (207) 760-3143

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manuf.</u>	<u>Stack #</u>
Plant 1, Unit 1	1.4	10.0	Distillate fuel 0.5% by weight	2015	3
Plant 1, Unit 2	1.4	10.0	Distillate fuel 0.5% by weight	2015	4
Plant 3, Unit 1	1.6 ¹	11.6	Distillate fuel 0.5% by weight	2001	1
Plant 3, Unit 2	1.6 ¹	11.6	Distillate fuel 0.5% by weight	2001	1
Plant 8, Unit 1	1.4	10.0	Distillate fuel 0.5% by weight	Pre-1990	5
Garage Boiler	2.1	15.0	Distillate fuel 0.5% by weight	1959	2

Insignificant Boilers/Furnaces²

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manufacture</u>
Plant 2, Unit 1	0.3	Distillate fuel 0.5% by weight	2007
Plant 2, Unit 2	0.3	Distillate fuel 0.5% by weight	2011
Plant 4, Unit 1	0.5	Distillate fuel 0.5% by weight	Unknown
Plant 4, Unit 2	0.5	Distillate fuel 0.5% by weight	Unknown
Plant 5, Unit 1	0.5	Distillate fuel 0.5% by weight	2006
Plant 5, Unit 2	0.5	Distillate fuel 0.5% by weight	2006
Plant 7, Unit 1	0.4	Distillate fuel 0.5% by weight	Unknown
Plant 7, Unit 2	0.4	Distillate fuel 0.5% by weight	Unknown

¹ The values of these Maximum Capacities were amended in license A-163-71-I-A to 1.3 MMBtu/hr. These values represented the Maximum Output Capacity rather than Maximum Input Capacity. Maximum Firing Rates were used to calculate actual Maximum Input Capacities for use in this license.

² This equipment was included for inspection/inventory purposes. They will not be further discussed in the license.

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manufacture</u>
Office Boiler	0.1	Distillate fuel 0.5% by weight	2007
Sanitation Hot Air Furnace	0.5	Distillate fuel 0.5% by weight	2008
Warehouse Boiler	0.5	Distillate fuel 0.5% by weight	Unknown

Emergency Generators

<u>Equipment</u>	<u>Rated Output Capacity (KW)</u>	<u>Maximum Heat Input Capacity (MMBtu/hr)</u>	<u>Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manuf.</u>
Plant 1, Generator #1	225	2.20	16.0	Distillate fuel 0.0015% by weight	1960's
Plant 2, Generator #1	250	2.44	17.8	Distillate fuel 0.0015% by weight	1962
Plant 3, Generator #1	230	2.25	16.5	Distillate fuel 0.0015% by weight	1967
Plant 4, Generator #1 ³	180	1.76	12.8	Distillate fuel 0.0015% by weight	1970
Plant 5, Generator #1	275	2.68	19.6	Distillate fuel 0.0015% by weight	1960's
Plant 7, Generator #1	475	4.63	35.6	Distillate fuel 0.0015% by weight	2001
Plant 8, Generator #1	250	2.44	17.8	Distillate fuel 0.0015% by weight	1970's
Plant 3, Generator #2	230	2.25	16.5	Distillate fuel 0.0015% by weight	1970
Plant 4, Generator #2	175	1.71	12.5	Distillate fuel 0.0015% by weight	1960's
Plant 5, Generator #2	100	0.98	7.1	Distillate fuel 0.0015% by weight	1960's

³ Plant 4, Generator #1 from the previous license has been replaced with Brooders 3-4 Generator. Brooders 3-4 Generator (now Plant 4, Generator #1) has not been replaced.

Parts Washer

<u>Emission Unit ID</u>	<u>Capacity (gallons)</u>	<u>Solvent Used</u>	<u>Solvent % VOC</u>
Parts Washer	15	Armakleen 4-in-1 Cleaner	<5%

C. 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.

D. Application Classification

The application for Hillandale Farms includes the licensing of increased emissions and the installation of new or modified equipment. The license is therefore considered to be both a renewal and an amendment of the current air emission license per *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (CMR) 115 (as amended). With operating hours restrictions on the emergency generators, Hillandale Farms is licensed below the major source thresholds for criteria pollutants and is considered a synthetic minor. Because of the restrictions, Hillandale is also licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of HAP.

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the "Significant Emission" levels as defined in the Department's *Definitions Regulation*, 06-096 CMR 100 (as amended). The emission increases are determined by subtracting the current licensed annual emissions preceding the modification from the maximum future licensed annual emissions, as follows:

<u>Pollutant</u>	<u>Current License (TPY)</u>	<u>Future License (TPY)</u>	<u>Net Change (TPY)</u>	<u>Significant Emission Levels</u>
PM	4.5	3.7	-0.8	100
PM ₁₀	4.5	3.7	-0.8	100
SO ₂	16.2	21.7	5.5	100
NO _x	36.7	10.9	-25.8	100
CO	6.3	2.6	-3.7	100
VOC	3.0	0.4	-2.6	50

This modification 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.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

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

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

B. Boilers

Hillandale Farms operates the following six boilers for heating and hot water needs:

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manuf.</u>	<u>Previously Licensed?</u>
Plant 1, Unit 1	1.4	Distillate fuel 0.5% by weight	2015	No
Plant 1, Unit 2	1.4	Distillate fuel 0.5% by weight	2015	No
Plant 3, Unit 1	1.6	Distillate fuel 0.5% by weight	2001	Yes
Plant 3, Unit 2	1.6	Distillate fuel 0.5% by weight	2001	Yes
Plant 8, Unit 1	1.4	Distillate fuel 0.5% by weight	Pre-1990	No
Garage Boiler	2.1	Distillate fuel 0.5% by weight	1959	Yes

1. BACT Findings

The BACT emission limits for the newly licensed boilers, Plant 1, Units 1 and 2 and Plant 8, Unit 1 were based on the following:

Distillate Fuel

- PM/PM₁₀ – 0.08 lb/MMBtu based on 06-096 CMR 115, BACT
- SO₂ – 0.51 lb/MMBtu 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 emission limits for Plant 1, Units 1 and 2 and Plant 8, Unit 1 are the following:

<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>
Plant 1, Unit 1 (1.4 MMBtu/hr) Distillate fuel	0.11	0.11	0.72	0.20	0.05	0.003
Plant 1, Unit 2 (1.4 MMBtu/hr) Distillate fuel	0.11	0.11	0.72	0.20	0.05	0.003
Plant 8, Unit 1 (1.4 MMBtu/hr) Distillate fuel	0.11	0.11	0.72	0.20	0.05	0.003

Visible emissions from each of the above boilers firing distillate fuel shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six minute block average in a three-hour period.

2. BPT Findings

The BPT emission limits for the other boilers, Plant 3 Units 1 and 2 and the Garage Boiler, are based on the following:

Distillate Fuel

- PM/PM₁₀ – 0.08 lb/MMBtu based on 06-096 CMR 115, BPT
- SO₂ – 0.51 lb/MMBtu 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 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)
Plant 3, Unit 1 (1.6 MMBtu/hr) Distillate fuel	0.13	0.13	0.84	0.23	0.06	0.004
Plant 3, Unit 2 (1.6 MMBtu/hr) Distillate fuel	0.13	0.13	0.84	0.23	0.06	0.004
Garage Boiler (2.1 MMBtu/hr) Distillate fuel	0.17	0.17	1.09	0.30	0.08	0.01

Visible emissions from each of the above boilers firing distillate fuel shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six minute block average in a three-hour period.

3. Fuel Sulfur Content Requirements

Hillandale Farms' boilers 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 in the state of Maine 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 at the facility shall not exceed 0.0015% by weight (15 ppm).

4. Periodic Monitoring

Periodic monitoring for the boilers shall include documentation of the type of fuel used and the sulfur content of the fuel.

5. NSPS 40 CFR Part 60, Subpart Dc

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

6. NESHAP 40 CFR Part 63, Subpart JJJJJ

The federal regulation found at 40 CFR Part 63, Subpart JJJJJ, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, is applicable to industrial, commercial, or institutional boilers, as defined in the Subpart, which are located at or are part of an area source of HAP.

Hot water boilers (excluding steam units) less than 1.6 MMBtu/hr are covered under the hot water heater exemption of this subpart. Subpart JJJJJ is not applicable to units firing gas, hot water heaters, temporary boilers, and residential boilers. Plant 1, Unit 1; Plant 1, Unit 2; and Plant 8, Unit 1 are rated for less than 1.6 MMBtu/hr, and are therefore each exempt from 40 CFR Part 63, Subpart JJJJJ. [40 CFR Parts 63.11195(f) and 63.11237(definition of water heater)]

Plant 3, Unit 1; Plant 3, Unit 2; and the Garage Boiler are each subject to 40 CFR Part 63, Subpart JJJJJ. Each unit is considered an existing oil boiler rated at less than 5 MMBtu/hr.

A summary of the currently applicable federal 40 CFR Part 63 Subpart JJJJJ requirements is listed below. At this time, the Department has not taken delegation of this area source MACT (Maximum Achievable Control Technology) rule promulgated by EPA; however, Hillandale Farms 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

(1) Initial Notification of Compliance

An Initial Notification submittal was required to be submitted to EPA [40 CFR Part 63.11225(a)(2)]

(2) Boiler Tune-Up Program

- i. A boiler tune-up program shall be implemented. [40 CFR Part 63.11223]
- ii. 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
Oil-fired boiler with a heat input capacity of ≤ 5 MMBtu/hr	Every 5 years

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

- iii. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
- (a) 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 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hr. [40 CFR Part 63.11223(b)(1)]
 - (b) 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)]
 - (c) 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 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hr. [40 CFR Part 63.11223(b)(3)]
 - (d) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
 - (e) 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)]
 - (f) 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)]
- iv. Tune-Up Report: A tune-up report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the following information:
- (a) The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
 - (b) A description of any corrective actions taken as part of the tune-up of each boiler; and
 - (c) The types and amounts of fuels used over the 12 months prior to the tune-up of each boiler, but only if any unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. [40 CFR §63.11223(b)(6)]

- v. After conducting the initial boiler tune-up, a Notification of Compliance Status was submitted to EPA by Hillandale Farms (under the name of Moark LLC) on July 14, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]

(3) Compliance Report

A compliance report shall be prepared by March 1st every fifth year which covers the previous five calendar years. The report shall be maintained by the source and submitted to the Department and to the EPA upon request. The report must include the items contained in §63.11225(b)(1) and (2), including the following: [40 CFR §63.11225(b)]

- i. Company name and address;
- ii. A statement of whether the source has complied with all the relevant requirements of this Subpart;
- iii. A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;
- iv. The following certifications, as applicable:
 - (a) "This facility complies with the requirements in 40 CFR §63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
 - (b) "No secondary materials that are solid waste were combusted in any affected unit."
 - (c) "This facility complies with the requirement in 40 CFR §§63.11214(d) to conduct a tune-up of each applicable boiler according to 40 CFR §63.11223(b)."

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63, Subpart JJJJJ including the following [40 CFR Part 63.11225(c)]:

- (1) Copies of notifications and reports with supporting compliance documentation;
- (2) 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;
- (3) Records of the occurrence and duration of each malfunction of each applicable boiler; and
- (4) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review. [40 CFR §63.1125(a)(4)(vi)]

C. Emergency Generators

Hillandale Farms operates ten emergency generators. The emergency generators are generator sets with each gen set consisting of an engine and an electrical generator. The emergency generators are identified in the table below:

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manuf.</u>
Plant 1, Generator #1	2.20	Distillate fuel 0.0015% by weight	1960's
Plant 2, Generator #1	2.44	Distillate fuel 0.0015% by weight	1962
Plant 3, Generator #1	2.25	Distillate fuel 0.0015% by weight	1967
Plant 4, Generator #1	1.76	Distillate fuel 0.0015% by weight	1970
Plant 5, Generator #1	2.68	Distillate fuel 0.0015% by weight	1960's
Plant 7, Generator #1	4.63	Distillate fuel 0.0015% by weight	2001
Plant 8, Generator #1	2.44	Distillate fuel 0.0015% by weight	1970's
Plant 3, Generator #2	2.25	Distillate fuel 0.0015% by weight	1970
Plant 4, Generator #2	1.71	Distillate fuel 0.0015% by weight	1960's
Plant 5, Generator #2	0.98	Distillate fuel 0.0015% by weight	1960's

1. BPT Findings

The BPT emission limits for Plant 7, Generator #1 are based on the following:

Pollutant	Emission Factor (lb/MMBtu)	Source of Emission Factor
PM, PM ₁₀	0.12	06-096 CMR 103(2)(B)(1)(a)
SO ₂	0.0015	Combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm and 06-096 CMR 115, BPT
NO _x	3.2	AP-42 Table 3.4-1 (10/96)
CO	0.85	AP-42 Table 3.4-1(10/96)
VOC	0.09	AP-42 Table 3.4-1 (10/96)

The BPT emission limits for each of the other generators are based on the following:

Pollutant	Emission Factor (lb/MMBtu)	Source of Emission Factor
PM, PM ₁₀	0.31	AP-42 Table 3.3-1 (10/96)
SO ₂	0.0015	Combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm and 06-096 CMR 115, BPT
NO _x	4.41	AP-42 Table 3.3-1 (10/96)
CO	0.95	AP-42 Table 3.3-1 (10/96)
VOC	0.36	AP-42 Table 3.3-1 (10/96)

BPT emission limits for the generators are the following:

Unit	Pollutant	lb/MMBtu
Plant 7, Generator #1	PM	0.12

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Plant 1, Generator #1 (2.20 MMBtu/hr) Distillate fuel	0.68	0.68	0.01	9.68	2.09	0.79
Plant 2, Generator #1 (2.44 MMBtu/hr) Distillate fuel	0.76	0.76	0.01	10.76	2.32	0.88
Plant 3, Generator #1 (2.25 MMBtu/hr) Distillate fuel	0.70	0.70	0.01	9.92	2.14	0.81
Plant 4, Generator #1 (1.76 MMBtu/hr) Distillate fuel	0.54	0.54	0.01	7.74	1.67	0.63
Plant 5, Generator #1 (2.68 MMBtu/hr) Distillate fuel	0.83	0.83	0.01	11.83	2.55	0.97
Plant 7, Generator #1 (4.63 MMBtu/hr) Distillate fuel	0.56	0.56	0.01	14.83	3.94	0.42
Plant 8, Generator #1 (2.44 MMBtu/hr) Distillate fuel	0.76	0.76	0.01	10.76	2.32	0.88
Plant 3, Generator #2 (2.25 MMBtu/hr) Distillate fuel	0.70	0.70	0.01	9.92	2.14	0.81
Plant 4, Generator #2 (1.71 MMBtu/hr) Distillate fuel	0.53	0.53	0.01	7.54	1.62	0.62
Plant 5, Generator #2 (0.98 MMBtu/hr) Distillate fuel	0.30	0.30	0.01	4.30	0.93	0.35

Visible emissions from each of the distillate fuel-fired emergency generators shall not exceed 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period.

2. 40 CFR Part 63, Subpart IIII

The federal regulation 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)* is not applicable to Hillandale Farm's generators as they were all manufactured before April 1, 2006. [40 CFR §60.4200]

3. 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 applicable to the emergency engines listed above. The units are considered existing, emergency stationary reciprocating internal combustion engines at an area HAP source and are not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) specifically does not exempt these units from the federal requirements.

a. Emergency Engine Designation and Operating Criteria

Under Subpart ZZZZ, a stationary reciprocating internal combustion engine (RICE) is considered an **emergency** stationary RICE (emergency engine) as long as the engine is operated in accordance with the following criteria. Operation of an engine outside of the criteria specified below may cause the engine to no longer be considered an emergency engine under Subpart ZZZZ, resulting in the engine being subject to requirements applicable to **non-emergency** engines.

(1) Emergency Situation Operation (On-Site)

There is no operating time limit on the use of an emergency engine to provide electrical power or mechanical work during an emergency situation. Examples of use of an emergency engine during emergency situations include the following:

- Use of an engine to produce power for critical networks or equipment (including power supplied to portions of a facility) because of failure or interruption of electric power from the local utility (or the normal power source, if the facility runs on its own power production);
- Use of an engine to mitigate an on-site disaster or equipment failure;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.

(2) Non-Emergency Situation Operation

An emergency engine may be operated up to a maximum of 100 hours per calendar year for Maintenance Checks, Readiness Testing, and other non-emergency situations as described below.

- (i) An emergency engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE more than 100 hours per calendar year.
- (ii) An emergency engine may be operated for up to 50 hours per calendar year for other non-emergency situations. **However, these operating hours are counted as part of the 100 hours per calendar year operating limit described in paragraph (2) and (2) (i) above.**

The 50 hours per calendar year operating limit for other non-emergency situations cannot be used for 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:

- (a) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
- (b) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- (c) The dispatch follows reliability, emergency operation or similar protocols that follow specific North American Electric Reliability Corporation (NERC), regional, state, public utility commission, or local standards or guidelines.
- (d) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (e) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission, or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local

transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

Each of Hillandale Farms' generators shall be limited to the usage outlined in §63.6640(f) and therefore classified as existing emergency stationary RICE as defined in 40 CFR Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in §63.6640(f) may cause any or all of these engines to not be considered emergency engines and therefore subject to all the requirements for non-emergency engines.

b. 40 CFR Part 63, Subpart ZZZZ Requirements

(1) Operation and Maintenance Requirements

	Operating Limitations (40 CFR §63.6603(a) and Table 2(d))
Compression ignition (distillate fuel) units: All Generators	<ul style="list-style-type: none">- Change oil and filter every 500 hours of operation or annually, whichever comes first;- Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

The engines shall be operated and maintained according to the manufacturer's emission-related written instructions, or the facility shall develop a maintenance plan which provides to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

(2) Optional Oil Analysis Program

Hillandale Farms has the option of utilizing an oil analysis program which complies with the requirements of §63.6625(i) in order to extend the specified oil change requirement. If this option is used, Hillandale Farms must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for each engine. [40 CFR §63.6625(i)]

(3) Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on each engine. [40 CFR §63.6625(f)]

(4) Startup Idle and Startup Time Minimization Requirements

During periods of startup, the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for

appropriate and safe loading of the engine, not to exceed 30 minutes.
[40 CFR §63.6625(h) & 40 CFR Part 63, Subpart ZZZZ Table 2d

(5) Annual Time Limit for Maintenance and Testing

As emergency engines, the units shall each 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 for each 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. [40 CFR §63.6640(f)]

(6) Recordkeeping

Hillandale Farms shall keep records that include maintenance conducted on the engines and the hours of operation of each 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 purposes. [40 CFR §63.6655(f)]

If any engines are operated during a period of demand response or deviation from standard voltage or frequency, or to supply power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), Hillandale Farms shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR §63.6655(e) and (f)]

(7) Requirements for Demand Response Availability Over 15 Hours Per Year (and greater than 100 brake hp)

If Hillandale Farms operates or is 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), the facility shall submit an annual report containing the information in §63.6650(h)(1)(i) through (ix). An annual report for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

U.S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100 (OES04-2)
Boston, MA 02109-3912
Attn: Air Compliance Clerk

[40 CFR §63.6650(h)]

D. Parts Washer

The parts washer has a design capacity of 15 gallons. The solvent used has a VOC content of less than 5% by weight and is therefore not subject to *Solvent Cleaners*, 06-096 CMR 130 (as amended).

E. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour.

F. Annual Emissions

1. Total Annual Emissions

Hillandale Farms shall be restricted to the following annual emissions, based on a calendar year total. The tons per year limits were calculated based on 100 non-emergency hours of operation of the generators and 8,760 hours of operation of the boilers:

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
Plant 1, Unit 1	0.49	0.49	3.17	0.88	0.22	0.01
Plant 1, Unit 2	0.49	0.49	3.17	0.88	0.22	0.01
Plant 3, Unit 1	0.57	0.57	3.68	1.02	0.25	0.02
Plant 3, Unit 2	0.57	0.57	3.68	1.02	0.25	0.02
Plant 8, Unit 1	0.49	0.49	3.17	0.88	0.22	0.01
Garage Boiler	0.74	0.74	4.76	1.31	0.33	0.02
Plant 1, Generator #1	0.03	0.03	0.01	0.48	0.10	0.04
Plant 2, Generator #1	0.04	0.04	0.01	0.54	0.12	0.04

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Plant 3, Generator #1	0.03	0.03	0.01	0.50	0.11	0.04
Plant 4, Generator #1	0.03	0.03	0.01	0.39	0.08	0.03
Plant 5, Generator #1	0.04	0.04	0.01	0.59	0.13	0.05
Plant 7, Generator #1	0.03	0.03	0.01	0.74	0.20	0.02
Plant 8, Generator #1	0.04	0.04	0.01	0.54	0.12	0.04
Plant 3, Generator #2	0.03	0.03	0.01	0.50	0.11	0.04
Plant 4, Generator #2	0.03	0.03	0.01	0.38	0.08	0.03
Plant 5, Generator #2	0.02	0.02	0.01	0.22	0.05	0.02
Total TPY	3.7	3.7	21.7	10.9	2.6	0.4

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 (CO₂e).

The quantity of CO₂e 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 is 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:

<u>Pollutant</u>	<u>Tons/Year</u>
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-163-71-K-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 06-096 CMR 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) **Boilers**

A. Fuel

1. Prior to July 1, 2018, the facility shall fire distillate fuel in the boilers with a maximum sulfur content not to exceed 0.5% by weight. [06-096 CMR 115, BPT/BACT]
2. 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/BACT]
3. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered. [06-096 CMR 115, BPT]

- B. Emissions from Plant 1, Unit 1; Plant 1, Unit 2; and Plant 8, Unit 1 shall not exceed the following [06-096 CMR 115, BACT]:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Plant 1, Unit 1 (1.4 MMBtu/hr) Distillate fuel	0.11	0.11	0.72	0.20	0.05	0.003
Plant 1, Unit 2 (1.4 MMBtu/hr) Distillate fuel	0.11	0.11	0.72	0.20	0.05	0.003
Plant 8, Unit 1 (1.4 MMBtu/hr) Distillate fuel	0.11	0.11	0.72	0.20	0.05	0.003

- C. Emissions from Plant 3, Unit 1; Plant 3, Unit 2; and the Garage Boiler shall not exceed the following [06-096 CMR 115, BPT]:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Plant 3, Unit 1 (1.6 MMBtu/hr) Distillate fuel	0.13	0.13	0.84	0.23	0.06	0.004
Plant 3, Unit 2 (1.6 MMBtu/hr) Distillate fuel	0.13	0.13	0.84	0.23	0.06	0.004
Garage Boiler (2.1 MMBtu/hr) Distillate fuel	0.17	0.17	1.09	0.30	0.08	0.01

D. Visible Emissions

Visible emissions from each boiler firing distillate fuel shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [06-096 CMR 101]

E. NESHAP 40 CFR Part 63, Subpart JJJJJ Requirements for Plant 3, Unit 1; Plant 3, Unit 2; and the Garage Boiler
 [incorporated under 06-096 CMR 115, BPT]

1. Compliance Dates, Notifications, and Work Practice Requirements

a. Boiler Tune-Up Program

(1) A boiler tune-up program shall be implemented. [40 CFR Part 63.11223]

(2) Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler, as follows:

Boiler Category	Tune-Up Frequency
Oil Fired with a heat input capacity of ≤5 MMBtu/hr	Every 5 years

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

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

(a) 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 72 months from

- the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hr. [40 CFR Part 63.11223(b)(1)]
- (b) 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)]
 - (c) 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 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hr. [40 CFR Part 63.11223(b)(3)]
 - (d) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
 - (e) 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)]
 - (f) 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)]
- (4) Tune-Up Report: A tune-up report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the following information:
- (a) The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
 - (b) A description of any corrective actions taken as part of the tune-up of each boiler; and
 - (c) The types and amounts of fuels used over the 12 months prior to the tune-up of each boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. [40 CFR §63.11223(b)(6)]

b. Compliance Report

A compliance report shall be prepared by March 1st every five years which covers the previous five calendar years. The report shall be maintained by the source and submitted to the Department and to the EPA upon request. The report must include the items contained in §63.11225(b)(1) and (2), including the following: [40 CFR §63.11225(b)]

- (1) Company name and address;
- (2) A statement of whether the source has complied with all the relevant requirements of this Subpart;
- (3) A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;
- (4) The following certifications, as applicable:
 - (a) "This facility complies with the requirements in 40 CFR §63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
 - (b) "No secondary materials that are solid waste were combusted in any affected unit."
 - (c) "This facility complies with the requirement in 40 CFR §§63.11214(d) to conduct a tune-up of each applicable boiler according to 40 CFR §63.11223(b)."

2. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63, Subpart JJJJJ including the following [40 CFR Part 63.11225(c)]:

- a. Copies of notifications and reports with supporting compliance documentation;
- b. 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;
- c. Records of the occurrence and duration of each malfunction of each applicable boiler; and
- d. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review.
[40 CFR §63.1125(a)(4)(vi)]

(17) Emergency Generators

- A. Each of the emergency generators shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations.
[06-096 CMR 115, BPT]
- B. The fuel sulfur content for each of Hillandale Farms' generators shall be limited to 0.0015% sulfur by weight. Compliance shall be demonstrated by fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel.
[06-096 CMR 115, BPT]

C. Emissions shall not exceed the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
Plant 7, Generator #1	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

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

<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>
Plant 1, Generator #1 (2.20 MMBtu/hr) Distillate fuel	0.68	0.68	0.01	9.68	2.09	0.79
Plant 2, Generator #1 (2.44 MMBtu/hr) Distillate fuel	0.76	0.76	0.01	10.76	2.32	0.88
Plant 3, Generator #1 (2.25 MMBtu/hr) Distillate fuel	0.70	0.70	0.01	9.92	2.14	0.81
Plant 4, Generator #1 (1.76 MMBtu/hr) Distillate fuel	0.54	0.54	0.01	7.74	1.67	0.63
Plant 5, Generator #1 (2.68 MMBtu/hr) Distillate fuel	0.83	0.83	0.01	11.83	2.55	0.97
Plant 7, Generator #1 (4.63 MMBtu/hr) Distillate fuel	0.56	0.56	0.01	14.83	3.94	0.42
Plant 8, Generator #1 (2.44 MMBtu/hr) Distillate fuel	0.76	0.76	0.01	10.76	2.32	0.88
Plant 3, Generator #2 (2.25 MMBtu/hr) Distillate fuel	0.70	0.70	0.01	9.92	2.14	0.81
Plant 4, Generator #2 (1.71 MMBtu/hr) Distillate fuel	0.53	0.53	0.01	7.54	1.62	0.62
Plant 5, Generator #2 (0.98 MMBtu/hr) Distillate fuel	0.30	0.30	0.01	4.30	0.93	0.35

E. Visible Emissions

Visible emissions from each of the distillate fuel-fired emergency generators shall not exceed 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period. [06-096 CMR 101]

F. All generators operated by Hillandale Farms shall meet the applicable requirements of 40 CFR Part 63, Subpart ZZZZ, including the following:

1. Hillandale Farms shall meet the following operational limitations for each of the compression ignition emergency engines:
 - a. Change the oil and filter annually,
 - b. Inspect the air cleaner annually and replace as necessary, and
 - c. Inspect the hoses and belts annually and replace as necessary.

Records shall be maintained documenting compliance with the operational limitations.

[40 CFR §63.6603(a) and Table 2(d); and 06-096 CMR 115]

2. Oil Analysis Program Option

Hillandale Farms has the option of utilizing an oil analysis program which complies with the requirements of §63.6625(i) in order to extend the specified oil change requirement. If this option is used, Hillandale Farms shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for each engine. The analysis program shall be part of the maintenance plan for each engine. [40 CFR §63.6625(i)]

3. Non-Resettable Hour Meter

A non-resettable hour meter shall be installed and operated on each engine. [40 CFR §63.6625(f)]

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

- a. The emergency engines shall each 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 to supply power as part of a financial arrangement with another entity unless the conditions in 40 CFR §63.6640(f)(4)(ii) are met. These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written logs) of all operating hours for each engine. [40 CFR §63.6640(f) and 06-096 CMR 115]

- b. Hillandale Farms shall keep records that include maintenance conducted on each engine and the hours of operation of each 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 any engine is operated during a period of demand response or deviation from standard voltage or frequency, or to supply power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), the facility shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR §63.6655(e) and (f)]

5. Operation and Maintenance

The engines shall be operated and maintained according to the manufacturers' emission-related written instructions, or Hillandale shall develop a maintenance plan which provides to the extent practicable for the maintenance and operation of each engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

6. Startup Idle and Startup Time Minimization

During periods of startup, the facility must minimize each engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR §63.6625(h) & 40 CFR Part 63, Subpart ZZZZ Table 2d]

7. Requirements For Demand Response Availability Over 15 Hours Per Year (and greater than 100 brake hp)

- a. If Hillandale operates or is 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 for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), the facility shall submit an annual report containing the information in §63.6650(h)(1)(i) through (ix).. An annual report for each calendar year shall be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report shall be submitted to the following address:

U.S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100 (OES04-2)
Boston, MA 02109-3912
Attn: Air Compliance Clerk

[40 CFR §63.6650(h)]

Hillandale Farms Conn, LLC
Androscoggin County
Turner, Maine
A-163-71-K-R/A (SM)

29

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

(18) **General Process Sources**

Visible emissions from any general process source shall not exceed an opacity of 20% on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period. [06-096 CMR 101]

(19) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, except for no more than five minutes in any one-hour period. Compliance shall be determined by an aggregate of the individual fifteen-second opacity observations which exceed 20% in any one hour. [06-096 CMR 101]

(20) Hillandale Farms 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 27 DAY OF June, 2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: *Marie Allen Robert Core* 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.A. §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: 03/07/2016

Date of application acceptance: 03/08/2016

Date filed with the Board of Environmental Protection:

This Order prepared by Colby Fortier-Brown, Bureau of Air Quality.

