



DEPARTMENT ORDER

Comcast of Maine/
New Hampshire, Inc.
Cumberland County
Freeport, Maine
A-1149-71-A-N

Departmental
Findings of Fact and Order
Air Emission License

FINDINGS OF FACT

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

I. REGISTRATION

A. Introduction

Comcast of Maine/New Hampshire, Inc. (Comcast) has applied for an Air Emission License for the operation of emission sources associated with their telecommunications facility.

The equipment addressed in this license is located at 14 Dorrington Drive, Freeport, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Stationary Engines

Equipment	Max. Input Capacity (MMBtu/hr)	Rated Output Capacity (HP)	Fuel Type, % sulfur	Firing Rate (gal/hr)	Date of Manuf.	Date of Install.	Stack
Generator #1	0.73	105	Propane, N/A	8.0	August 2006	2019	1
Generator #2	0.92	130	Propane, N/A	10.0	January 2007	2019	2

Comcast may operate small stationary engines smaller than 0.5 MMBtu/hr. These engines are considered insignificant activities and are not required to be included in this license. However, they are still subject to applicable State and Federal regulations. More information regarding requirements for small stationary engines is available on the Department's website at the link below.

<http://www.maine.gov/dep/air/publications/docs/SmallRICEGuidance.pdf>

Additionally, Comcast may operate portable engines used for maintenance or emergency-only purposes. These engines are considered insignificant activities and are not required to be included in this license. However, they may still be subject to applicable State and Federal regulations.

C. Definitions

Portable Engine means an internal combustion engine which is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. This definition does NOT include engines which remain or will remain at a location (excluding storage locations) for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

D. Application Classification

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

Comcast is classified as an existing source that is applying for its first air emission license, after-the-fact. The Department has determined the facility is a minor source, and the application has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115.

E. Facility Description

The Comcast facility in Freeport is an unmanned cable hub in place to support their telecommunications business. The two generators at this facility were originally installed at another Comcast site and relocated to Freeport and installed in August of 2019. These generators will be used for emergency backup only and will only be scheduled to run for maintenance and testing purposes.

F. Facility Classification

The facility is licensed as follows:

- As a natural minor source of air emissions, because no license restrictions are necessary to keep facility emissions below major source thresholds for criteria pollutants; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

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

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

B. Generators #1 and #2

Comcast operates two emergency generator sets, each of which consists of an engine that fires propane fuel and an electrical generator. The engine for Generator #1 is rated with a maximum heat input capacity of 0.73 MMBtu/hr and was manufactured in August of 2006. The engine for Generator #2 is rated at 0.92 MMBtu/hr and was manufactured in January of 2007.

1. BACT Analysis

a. Particulate Matter (PM and PM₁₀)

Particulate matter emissions from gas-fired engines are generally controlled through proper operation and maintenance and through good combustion techniques. Given the operating hours restrictions for emergency generators, the use of add-on controls for particulate matter is not economically feasible. BACT for PM and PM₁₀ emissions from Generators #1 and #2 shall be proper operation and maintenance of the units and the emission limits listed in the below tables.

b. Sulfur Dioxide (SO₂)

As emergency engines that fire propane fuel, operate for only short periods of time, and have annual non-emergency runtime limits of 100 hours per year, the use of additional SO₂ add-on control methods are not economically feasible due to the minimal emissions the engines produce. BACT for SO₂ emissions from Generators #1 and #2 shall be their proper operation and maintenance, the use of propane, and the emission limits listed in the below tables.

c. Nitrogen Oxides (NO_x)

Selective Catalytic Reduction (SCR) and Selective Non-Catalytic Reduction (SNCR) are NO_x control technologies that are sometimes used to reduce NO_x emissions from gas-fired engines. Because Generators #1 and #2 are emergency engines that are each limited to 100 hours of non-emergency operation per year, the use of SCR or SNCR would not be economically feasible. BACT for NO_x emissions from Generators #1 and #2 shall be their proper operation and maintenance, the use of good combustion practices, and the emission limits listed in the below tables.

d. Carbon Monoxide (CO) and Volatile Organic Compounds (VOC)

CO and VOC emissions from gas-fired emergency generators of this size are generally controlled through proper operation and maintenance. Oxidation catalysts and NSCR have been used on large prime power engines to reduce CO and VOC emissions, but their use on limited use emergency generators would not be economically feasible. BACT for CO and VOC emissions from Generators #1 and #2 shall be their proper operation and maintenance and the emission limits listed in the below tables.

2. BACT Findings

The BACT emission limits for the two emergency generators are based on the following:

Propane

PM/PM ₁₀	- 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103
SO ₂	- 0.000588 lb/MMBtu, from AP-42 Table 3.2-3 dated 07/2000
NO _x	- 2.21 lb/MMBtu, from AP-42 Table 3.2-3 dated 07/2000
CO	- 3.72 lb/MMBtu, from AP-42 Table 3.2-3 dated 07/2000
VOC	- 0.0296 lb/MMBtu, from AP-42 Table 3.2-3 dated 07/2000
Visible Emissions	- 06-096 C.M.R. ch. 115, BACT

The BACT emission limits for the two emergency generators are the following:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.09	0.09	negl.	1.62	2.72	0.02
Generator #2	0.11	0.11	negl.	2.02	3.40	0.03

Visible emissions from each of the emergency generators shall not exceed 10% opacity on a six-minute block average basis except for periods of startup during which time Comcast may elect to comply with the following work practice standards in lieu of the numerical opacity standard.

- a. Maintain a log (written or electronic) of the date, time, and duration of all generator startups.
- b. Operate the generators in accordance with the manufacturer's emission-related operating instructions.
- c. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.
- d. Operate the generators, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

The Department has determined that the proposed BACT visible emissions limit is more stringent than the applicable limit in 06-096 C.M.R. ch. 101. Therefore, the visible emissions limit for each generator has been streamlined to the more stringent BACT limit, and only this more stringent limit shall be included in the air emission license.

3. New Source Performance Review Standards - 40 C.F.R. Part 60, Subpart JJJJ

Standards of Performance for Spark Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart JJJJ is not applicable to the emergency engines listed above since the units were manufactured prior to January 1, 2009. [40 C.F.R. § 60.4230]

4. National Emission Standards for Hazardous Air Pollutants – 40 C.F.R. Part 63, Subpart ZZZZ

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ is not applicable to the two emergency engines listed above. The units are considered

existing, emergency stationary reciprocating internal combustion engines at an area HAP source. However, they are considered exempt from the requirements of 40 C.F.R. Part 63, Subpart ZZZZ since they are categorized as commercial emergency engines and they do not operate or are not contractually obligated to be available 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 40 C.F.R. § 63.6640(f)(4)(ii).

5. Requirements for Emergency Engines

Each of the emergency generators shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. There is no limit on emergency operation. Each emergency generator shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, Comcast shall keep records of the total hours of operation and the hours of emergency operation for each unit.

Emergency generators are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Emergency generators are not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available 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.

C. Annual Emissions

Comcast shall be restricted to the following annual emissions, based on a calendar year total. The tons per year limits were calculated based on each of the two emergency generators operating for 100 hours per 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
Generator #1	0.05	0.05	0.05	0.1	0.1	0.05
Generator #2	0.05	0.05	0.05	0.1	0.2	0.05
Total TPY	0.1	0.1	0.1	0.2	0.3	0.1

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

III. AMBIENT AIR QUALITY ANALYSIS

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

Pollutant	Tons/Year
PM 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-1149-71-A-N subject to the following conditions.

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

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S. § 347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 C.M.R. ch. 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 C.M.R. ch. 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 C.M.R. ch. 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 C.M.R. ch. 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 C.M.R. ch. 115]

- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
[06-096 C.M.R. ch. 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:
- A. Perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - 1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - 2. Pursuant to any other requirement of this license to perform stack testing.
 - B. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. Submit a written report to the Department within thirty (30) days from date of test completion.
[06-096 C.M.R. ch. 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. Within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department; and
 - B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

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

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 C.M.R. ch. 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 C.M.R. ch. 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 C.M.R. ch. 115]

SPECIFIC CONDITIONS

(16) Generators #1 and #2

- A. Generators #1 and #2 shall be licensed to fire propane exclusively. [06-096 C.M.R. ch. 115, BACT]
- B. Emergency Generators #1 and #2 are only to be operated for maintenance or testing purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. [06-096 C.M.R. ch. 115, BACT]
- C. Each of the emergency generators shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 115, BACT]

D. Comcast shall demonstrate compliance with the operating hours limit by keeping records of the total hours of operation and the hours of emergency operation for each unit, as recorded on the non-resettable hour meter for each generator. Records shall clearly indicate the date, time, and duration for each runtime event for each generator, and whether they were operating for emergency backup or maintenance/testing purposes. [06-096 C.M.R. ch. 115, BACT]

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

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.09	0.09	negl.	1.62	2.72	0.02
Generator #2	0.11	0.11	negl.	2.02	3.40	0.03

F. Visible Emissions

Visible emissions from each of the emergency generators shall not exceed 10% opacity on a six-minute block average basis except for periods of startup during which time Comcast may elect to comply with the following work practice standards in lieu of the numerical opacity limit. [06-096 C.M.R. ch. 115, BACT]

1. Maintain a log (written or electronic) of the date, time, and duration of all generator startups.
2. Operate the generators in accordance with the manufacturer's emission-related operating instructions.
3. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.
4. Operate the generators, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

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**Departmental
Findings of Fact and Order
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- (17) Comcast shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S. § 605).

DONE AND DATED IN AUGUSTA, MAINE THIS 2nd DAY OF December, 2019.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

for
GERALD D. REID, COMMISSIONER

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

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: October 1, 2019

Date of application acceptance: October 7, 2019

Date filed with the Board of Environmental Protection:

This Order prepared by Patric J. Sherman, Bureau of Air Quality.

