



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE  
GOVERNOR

PATRICIA W. AHO  
COMMISSIONER

**Central Maine Power Company  
Substations (various)  
Kennebec County  
Augusta, Maine  
A-952-71-B-R (SM)**

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

**FINDINGS OF FACT**

After review of the air emissions license renewal 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 Maine Department of Environmental Protection (Department) finds the following facts:

**I. REGISTRATION**

**A. Introduction**

Central Maine Power Company (CMP) has applied to renew their Air Emission License permitting the operation of four temporary portable diesel-fired generator sets, also called distributed generation units (DG units).

This license is based at the corporate office of Central Maine Power Company, in Augusta, but the DG units may be transported to and operated at various locations throughout CMP's service area of Central and Southern Maine.

**B. Emission Equipment**

The following equipment is addressed in this air emission license:

**Generators**

<b>Equipment</b>	<b>Maximum Capacity (MMBTU/hr)</b>	<b>Maximum Firing Rate (gal/hr)</b>	<b>Fuel Type</b>
DG Unit #1	19.0	~136	Diesel fuel, 0.0015%S
DG Unit #2	19.0	~136	Diesel fuel, 0.0015%S
DG Unit #3	19.0	~136	Diesel fuel, 0.0015%S
DG Unit #4	19.0	~136	Diesel fuel, 0.0015%S

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

C. Application Classification

The application for CMP does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of currently licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (as amended). With the fuel limit placed on the DG units, the facility is licensed below the major source thresholds and is considered a synthetic minor.

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. DG Units #1, #2, #3 and #4

CMP intends to simultaneously operate up to four portable engine generator sets, also called distributed generation (DG units) during periods of exceptionally high electricity demand due to weather or during construction, maintenance/repair, or reconfiguration of substations and/or transmission lines. The diesel-fired DG units are each rated at approximately 19 MMBtu/hr.

Each DG unit, which would be leased from a dealer when necessary, is trailer-mounted and self-contained with an integral diesel fuel tank. The DG units may be located at one or more of CMP substation(s) within its Central and Southern Maine service areas and will be brought on-site only during periods when additional voltage support is required locally. The four-stroke cycle engines will fire fuel with a maximum sulfur content of 0.0015% (15ppm). Emissions from

each DG unit will exhaust through a separate stack approximately thirteen feet above local ground level.

CMP shall notify the Bureau of Air Quality in writing prior to relocation of the DG unit(s). In an emergency situation, notification shall take place as soon as possible, but no later than forty-eight hours after the installation of the DG unit(s).

The DG units used will either be a Caterpillar Model 3516B or Cummins Diesel Model QSK60-G6 Nonroad 1, or other models with similar or lower air emissions. The Caterpillar and Cummins models have a two megawatt generating capacity, use the same fuels, and have similar fuel consumption rates and emissions. The units will typically be operated inside the chain link substation fence or, alternatively, within another secured restricted-access area adjacent to the substation, and will require no additional tanks or structures, except for a skid-mounted electrical transformer.

#### 1. BPT Findings

The BPT emission limits for each DG unit are based on the following:

PM/PM <sub>10</sub>	0.7 lb/hour, based on vendor data (previous BACT limit)
SO <sub>2</sub>	0.0015 lb/MMBTU, firing 0.0015%S (15ppm) diesel fuel
NO <sub>x</sub>	57.5 lb/hour, based on vendor data (previous BACT limit)
CO	5.8 lb/hour, based on vendor data (previous BACT limit)
VOC	1.3 lb/hour, based on vendor data (previous BACT limit)
Opacity	06-096 CMR 101

Visible emissions from each DG unit shall not exceed 20% on a six-minute block average basis, except for no more than two six-minute block averages in a continuous three-hour period.

Equipment	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
DG Unit #1	0.7	0.7	0.1	57.5	5.8	1.3
DG Unit #2	0.7	0.7	0.1	57.5	5.8	1.3
DG Unit #3	0.7	0.7	0.1	57.5	5.8	1.3
DG Unit #4	0.7	0.7	0.1	57.5	5.8	1.3

CMP shall be restricted to a total annual fuel use for all four units of 271,600 gallons/year on a twelve-month rolling total basis (equating to a total of approximately 2,000 operating hours per rolling twelve-month period, all DG units combined).

2. 40 CFR Part 60, Subpart IIII and 40 CFR Part 63, Subpart ZZZZ

All four DG units are considered non-road engines, as opposed to stationary engines, since the units are portable and will be moved to various substation sites as needed. Therefore, none of the DG units are subject to New Source Performance Standards 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* or to 40 CFR Part 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*. The definition in 40 CFR Part 1068.30 states that a non-road engine is an internal combustion engine that meets certain criteria, including: "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." 40 CFR Part 1068.30 further states that an engine is not a non-road engine if it remains or will remain at a location for more than twelve consecutive months or a shorter period of time for an engine located at a seasonal source. An engine located at a seasonal source (a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that operates at that single location approximately three months (or more) each year) is an engine that remains at a seasonal source during the full annual operating period of the seasonal source.

C. Annual Emissions

1. Total Annual Emissions

CMP shall be restricted to the following annual emissions, based on a twelve-month rolling total:

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

Equipment	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Total from four DG Units	0.7	0.7	0.1	57.5	5.8	1.3
<b>Total TPY</b>	<b>0.7</b>	<b>0.7</b>	<b>0.1</b>	<b>57.5</b>	<b>5.8</b>	<b>1.3</b>

The tons per year limits were calculated based on all four DG units firing a total of 271,600 gallons/year of diesel fuel (0.0015%S) on a twelve-month rolling total basis.

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO<sub>2</sub>e).

Based on the annual fuel use limit, the worst case emission factors from AP-42 and vendor-provided data, 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, CMP is below the major source threshold of 100,000 tons of CO<sub>2</sub>e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

**III. AMBIENT AIR QUALITY ANALYSIS**

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

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

The total facility licensed emissions 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 application.

**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 (BPT),
- 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-952-71-B-R, 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 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) DG Units**

- A. CMP may simultaneously utilize up to four DG units to be used during periods of exceptionally high electricity demand due to weather or during construction, maintenance/repair or reconfiguration of substations and transmission lines. The units shall be installed and utilized only during periods when additional voltage support is required locally. The diesel-fired internal combustion engine generator sets shall each not exceed a rating of 19 MMBtu/hr. [06-096 CMR 115, BPT]
- B. Total fuel use for the four DG units shall not exceed a total of 271,600 gallons/year (twelve-month rolling total) diesel fuel oil with a maximum sulfur content not to exceed 0.0015% by weight. Compliance shall be demonstrated by fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Records of fuel use shall be kept in a central location and made available to the Department upon request, on a monthly and a twelve-month rolling total basis. [06-096 CMR 115, BPT]
- C. DG unit(s) shall not operate at one location for more than a total of 500 hours during any twelve-month period for a specific power support scenario. Operating records shall be maintained to demonstrate compliance with this condition. [06-096 CMR 115]

D. Emissions shall not exceed the following:

Equipment	Pollutant	lb/MMBTU	Origin and Authority
DG Units #1 - #4	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

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

Equipment	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
DG Unit #1	0.7	0.7	0.1	57.5	5.8	1.3
DG Unit #2	0.7	0.7	0.1	57.5	5.8	1.3
DG Unit #3	0.7	0.7	0.1	57.5	5.8	1.3
DG Unit #4	0.7	0.7	0.1	57.5	5.8	1.3

F. Visible Emissions

Visible emissions from each DG unit shall not exceed 20% on a six-minute block average basis, except for no more than two six-minute block averages in a continuous three-hour period. [06-096 CMR 115, BPT]

(17) **Equipment Relocation** [06-096 CMR 115, BPT]

CMP shall notify the Bureau of Air Quality in writing prior to relocation of the DG units carried on this license. In an emergency situation, notification shall take place as soon as possible, but no later than forty-eight hours after the installation of the DG unit(s).

A. Written notice may be sent by mail, facsimile (fax), or e-mail. Notification sent by mail shall be sent to the address below or to a Department Regional Office:

Attn: Relocation Notice  
Maine DEP - Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

Fax: (207) 287-7641

Equipment relocation notification can also be submitted through the Department's on-line e-notice at:  
[www.maine.gov/dep/air/compliance/forms/relocation](http://www.maine.gov/dep/air/compliance/forms/relocation).

The notification shall include the address of the equipment's location, an identification of the equipment and the license number pertaining to the relocated equipment.

B. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.

(18) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 CMR 137 (as amended), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of either:

- 1) A computer program and accompanying instructions supplied by the Department; or

Central Maine Power Company  
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- 2) A written emission statement containing the information required in 06-096 CMR 137.

The emission statement must be submitted as specified by the date in 06-096 CMR 137.

- (19) CMP 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 12 DAY OF August, 2013.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for  
PATRICIA W. AHO, COMMISSIONER

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

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: September 14, 2011

Date of application acceptance: September 28, 2011

Date filed with the Board of Environmental Protection:

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



