



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



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GOVERNOR

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**City of Caribou
d/b/a Cary Medical Center
Aroostook County
Caribou, Maine
A-385-71-P-R (SM)**

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

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 (the Department) finds the following facts:

I. REGISTRATION

A. Introduction

The City of Caribou, Maine, d/b/a Cary Medical Center (Cary) has applied to renew their Air Emission License permitting the operation of emission sources associated with their acute care facility.

The equipment addressed in this license is located at 163 Van Buren Road, Suite #1, Caribou, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Max. Input Capacity (MMBtu/hr)	Fuel Type, Max. Firing Rate		Manuf. Date	Install. Date	Stack #
		Distillate Fuel (gal/hr)	Natural Gas (scf/hr)			
Boiler #1	10.4	74.5	10,422	1976	1977	1
Boiler #2	10.4	74.5	10,422			
Boiler #3	2.5	18.0	2,480	2007	2007	
Boiler #4	2.5	18.0	2,480			

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

Emergency Generator

Equipment	Max. Input Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Output	Fuel Type, % sulfur	Dates of...
Generator 1	5.85	42.7	600 kW	Distillate Fuel, 0.0015%	Manufacture: 2008 Installation: 2009

C. Application Classification

The application for Cary 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 Code of Maine Rules (CMR) 115 (as amended). With the annual fuel limits on Boilers #1, #2, #3, and #4 and the operating hours restriction on the emergency generator, the facility is identified in following two classifications:

- The facility is licensed below the major source thresholds for criteria air pollutants and is considered a synthetic minor source of criteria air pollutants.
- The facility is licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of HAP.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

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

BPT for 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 #1, #2, #3, and #4

Cary operates Boilers #1, #2, #3, and #4 to provide heat and steam for the facility. Boilers #1 and #2 were installed in 1977 and are each rated at 10.4 MMBtu/hour. Boilers #3 and #4 were installed in 2007 and are each rated at 2.5 MMBtu/hour. All four of these boilers exhaust through Stack #1.

Due to the years in which Boilers #1 and #2 were manufactured and installed and the size of Boilers #3 and #4, 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/hour manufactured after June 9, 1989.

All four of these boilers were licensed in March of 2014 to fire natural gas, with distillate fuel firing capability retained as a back-up fuel if natural gas became unavailable.

1. BACT/BPT Findings

The BACT/BPT emission limits for the boilers firing natural gas were based on the following:

- PM, PM₁₀ – 0.05 lb/MMBtu based on 06-096 CMR 115, BPT
- SO₂ – 0.6 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
- NO_x – 100 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
- CO – 84 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
- VOC – 5.5 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
- Visible Emissions – 06-096 CMR 101

The BPT emission limits for the boilers firing distillate fuel were based on the following:

- PM, PM₁₀ – 0.12 lb/MMBtu based on 06-096 CMR 103 for Boilers #1 and #2
- 0.08 lb/MMBtu; A-385-74-F-M (12/15/94), BPT for Boilers #3 and #4
- SO₂ – based on firing ASTM D396 compliant #2 fuel oil (0.5% sulfur by wt.)
- NO_x – 0.25 lb/MMBtu; A-385-71-N-R/A (6/23/09), BPT
- 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
- Visible Emissions – 06-096 CMR 101

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

Unit	Pollutant	lb/MMBtu
Boilers #1 and #2	PM	0.12

The BACT emission limits for these boilers when firing natural gas 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)
Boiler #1 (10.4 MMBtu/hr)	0.52	0.52	0.01	1.04	0.88	0.06
Boiler #2 (10.4 MMBtu/hr)	0.52	0.52	0.01	1.04	0.88	0.06
Boiler #3 (2.5 MMBtu/hr)	0.125	0.125	0.001	0.25	0.21	0.01
Boiler #4 (2.5 MMBtu/hr)	0.125	0.125	0.001	0.25	0.21	0.01

The BACT emission limits for these boilers firing distillate fuel 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)
Boiler #1 (10.4 MMBtu/hr)	1.25	1.25	5.24	2.60	0.37	0.04
Boiler #2 (10.4 MMBtu/hr)	1.25	1.25	5.24	2.60	0.37	0.04
Boiler #3 (2.5 MMBtu/hr)	0.20	0.20	1.26	0.63	0.09	0.01
Boiler #4 (2.5 MMBtu/hr)	0.20	0.20	1.26	0.63	0.09	0.01

Visible emissions from any single boiler firing distillate fuel shall not exceed 20% 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 (2)(B)(1)(b)]

Visible emissions from any single boiler firing natural gas shall not exceed 10% 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 (2)(B)(1)(c)]

Visible emissions from two or more of these boilers firing concurrently shall not exceed 20% 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 115, BACT]

2. Fuels

For Boilers #1, #2, #3, and #4, Cary is limited to distillate fuel use of 300,000 gallons per calendar year and natural gas use of 40 MMscf per calendar year, based on a distillate fuel oil heat content value of 0.14 MMBtu/gallon and a natural gas heat content value of 1050 MMBtu/MMscf. [A-285-71-O-M (March 24, 2014), BPT]

Prior to July 1, 2016, or by the date otherwise stated in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired at the facility shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRSA §603-A(2)(A)(3), beginning July 1, 2016, or on the date specified in the statute, the facility shall fire distillate fuel with a maximum sulfur content limit of 0.005% by weight (50 ppm); and beginning January 1, 2018, or on the date specified in the statute, the facility shall fire distillate fuel with a maximum sulfur content limit of 0.0015% by weight (15 ppm). The specific dates contained in this paragraph reflect the current dates in the statute as of the effective date of this license; however, if the statute is revised, the facility shall comply with the revised dates upon promulgation of the statute revision.

3. Periodic Monitoring

Periodic monitoring for Boilers #1, #2, #3, and #4 shall include recordkeeping to document fuel oil use and natural gas use both on a monthly and a calendar year basis.

4. NESHAP: 40 CFR Part 63, Subpart JJJJJ

Boilers #1, #2, #3, and #4 may be subject to applicable requirements of 40 CFR Part 63, Subpart JJJJJ, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*. Gas-fired boilers are not subject to Subpart JJJJJ. [40 CFR § 63.11195 (e)] A gas-fired boiler is defined by this Subpart as follows [40 CFR §63.11237]:

any boiler that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment, gas supply emergencies, or periodic testing on liquid fuel. Periodic testing firing liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

Operation of Boilers #1, #2, #3, and #4 outside of these parameters may trigger applicability of 40 CFR Part 63, Subpart JJJJJ. Records shall be maintained to document operation of Boilers #1, #2, #3, and #4 as gas-fired boilers, as defined, or as otherwise in compliance with the applicable provisions of Subpart JJJJJ.

Operation of Boilers #1, #2, #3, and #4 such that they do not fit the definition of “gas-fired boiler” given above would cause Boilers #1, #2, #3, and #4 to be considered existing, oil-fired industrial boilers as defined in 40 CFR §63.11237 which are located at or are part of an area source of hazardous air pollutants (HAP), as defined in 40 CFR §63.2. As such, Boilers #1, #2, #3, and #4 may be subject to applicable requirements of 40 CFR Part 63, Subpart JJJJJ.

Such potentially applicable requirements of 40 CFR Part 63, Subpart JJJJJ may include submittal of an Initial Notification of Compliance; a Boiler Tune-up Program in accordance with the methods and schedule specified in Subpart JJJJJ; completion of a one-time Energy Assessment; and recordkeeping and reporting requirements, as applicable.

C. Emergency Generator

Cary operates one emergency generator, Generator 1, a 5.85 MMBtu/hour (600 kW) unit which fires distillate fuel. Generator 1 was manufactured in 2008 and installed in 2009.

1. BACT/BPT Findings

The BACT/BPT emission limits for Generator 1 are based on the following:

- PM, PM₁₀ - 0.12 lb/MMBtu; 06-096 CMR 103 (2)(B)(1)(a)
- SO₂ - combustion of distillate fuel with a maximum sulfur content of 15 ppm (0.0015% sulfur by weight)
- NO_x - 3.2 lb/MMBtu from AP-42 dated 10/96
- CO - 0.85 lb/MMBtu from AP-42 dated 10/96
- VOC - 0.09 lb/MMBtu from AP-42 dated 10/96
- Visible Emissions - 06-096 CMR 101

The BACT/BPT emission limits for Generator 1 are the following:

Unit	PM (lb/MMBtu)	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator 1 (5.85 MMBtu/hr)	0.12	0.70	0.70	0.30	18.72	4.97	0.53

Visible emissions from Generator 1 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. New Source Performance Standards (NSPS): 40 CFR Part 60, Subpart IIII

The federal regulation 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)*, is applicable to Generator 1 since the unit was ordered after July 11, 2005, and manufactured after April 1, 2006. By meeting the requirements of Subpart IIII, the unit also meets the requirements of *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 CFR Part 63, Subpart ZZZZ.

a. Emergency stationary ICE means any stationary reciprocating internal combustion engine that meets all of the following criteria: [40 CFR §60.4211(f) and §60.4219]

(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) Paragraph (1) above notwithstanding, the emergency stationary ICE may be operated for any combination of the purposes specified below for a maximum of 100 hours per calendar year:

(i) 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. Cary 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 Cary maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

- (ii) Emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, *Capacity and Energy Emergencies*, or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
 - (iii) Periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency.
- (3) Paragraphs (1) and (2) above notwithstanding, emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. These 50 hours are counted as part of the 100 hours per calendar year as provided in paragraph (2) above.

The 50 hours per calendar year for 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 supplying power as part of a financial arrangement with another entity, except if the following conditions are met:

- (i) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
- (ii) 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.
- (iii) The dispatch follows reliability, emergency operation, or similar protocols that follow specific NERC, regional, state, public utility commission, or local standards or guidelines.
- (iv) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (v) 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.

b. 40 CFR Part 60, Subpart IIII Requirements

(1) Manufacturer Certification Requirement

Generator 1 shall be certified by the manufacturer as meeting the emission standards for new non-road compression ignition engines found in 40 CFR §60.4202. [40 CFR §60.4205(b)]

- (2) Ultra-Low Sulfur Fuel Requirement
The fuel fired in Generator 1 shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [40 CFR §60.4207(b)]
- (3) Non-Resettable Hour Meter Requirement
A non-resettable hour meter shall be installed and operated on Generator 1. [40 CFR §60.4209(a)]
- (4) Operation and Maintenance Requirements
Generator 1 shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by Cary that are approved by the engine manufacturer. Cary may only change those emission-related settings that are permitted by the manufacturer. [40 CFR §60.4211(a)]
- (5) Annual Time Limit for Maintenance and Testing
Generator 1 shall 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 supplying power as part of a financial arrangement with another entity unless the conditions in 40 CFR §60.4211(f)(3)(i) are met). [40 CFR §60.4211(f)]
- (6) Initial Notification Requirement
No initial notification is required for emergency engines. [40 CFR §60.4214(b)]
- (7) Recordkeeping
Cary shall keep records that include maintenance conducted on the engine and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours spent for emergency operation, including what classified each operation as emergency, and the number of hours spent for non-emergency purposes. If Generator 1 is operated during a period of demand response, 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 40 CFR §60.4211(f)(3)(i), Cary shall keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §60.4214(b)]
- (8) Annual Reporting Requirements for Demand Response Availability Over 15 Hours Per Year (for generators greater than 100 brake hp)
If Cary 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 40 CFR §60.4211(f)(3)(i), the facility shall submit an annual report containing the information in 40 CFR §60.4214(d)(1)(i) through (vii). The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports 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), 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:

Director, Office of Ecosystem Protection
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, MA 02109-3912

[40 CFR §60.4214(d)]

D. Annual Emissions

1. Total Annual Emissions

Cary shall be restricted to the following annual emissions, on a calendar year basis. The tons per year limits were calculated based on the following:

- a. Worst case emissions for each pollutant from either fuel which Boilers #1, #2, #3, and #4 are licensed to fire, based on a distillate fuel limit of 300,000 gal per calendar year and a natural gas limit of 40 MMscf/year.
- b. The Emergency Generator operating for 100 hours/year.

Total Licensed Annual Emissions for the Facility

Tons/year

(used to calculate the annual license fee)

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Boilers #1, #2, #3, and #4 (combined)	2.4	2.4	10.6	5.3	1.7	0.1
Emergency Generator	0.1*	0.1*	0.1*	0.9	0.2	0.1*
Total TPY	2.5	2.5	10.7	6.2	1.9	0.2

* rounded up to the nearest tenth of a ton

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).

Based on the facility's fuel use limits; the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98; and the global warming potentials contained in 40 CFR Part 98; Cary is below the major source threshold of 100,000 tons of CO₂e per year. Therefore, no additional requirements are needed to address GHG emissions.

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:

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-385-71-P-R 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, 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 Clean Air Act (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 #1, #2, #3, and #4**

A. Fuel

1. Cary is licensed to fire natural gas and distillate fuel in Boilers #1, #2, #3, and #4.
2. Total distillate fuel use for Boilers #1, #2, #3, and #4 shall not exceed 300,000 gallons per calendar year, and the distillate fuel shall meet the criteria in ASTM D396. [06-096 CMR 115, BPT]
3. Total natural gas use for Boilers #1, #2, #3, and #4 shall not exceed 40 MMscf per calendar year. [06-096 CMR 115, BPT]

4. Prior to July 1, 2016, or the date specified in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired in Boilers #1, #2, #3, and #4 shall be ASTM D396 compliant #2 fuel oil (max. sulfur content of 0.5% by weight). [06-096 CMR 115, BPT]
5. Beginning July 1, 2016, or on the date specified in 38 MRSA §603-A(2)(A)(3), the facility shall fire distillate fuel with a maximum sulfur content limit of 0.005% by weight (50 ppm). [38 MRSA §603-A(2)(A)(3)]
6. Beginning July 1, 2018, or on the date specified in 38 MRSA §603-A(2)(A)(3), the facility shall fire distillate fuel with a maximum sulfur content limit of 0.0015% by weight (15 ppm). [38 MRSA §603-A(2)(A)(3)]
7. Records from the supplier(s) documenting the quantity received and fuel types shall be kept to document compliance. Records of annual fuel use shall be kept on a monthly and a calendar year basis. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following: [06-096 CMR 103]

<u>Equipment</u>	<u>Units</u>	<u>PM</u>
Boiler #1	lb/MMBtu	0.12
Boiler #2		

C. Emissions from the following boilers when firing distillate fuel shall not exceed the following: [A-385-74-F-M, A-385-71-L-A; BPT]

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM₁₀</u> <u>(lb/hr)</u>	<u>SO₂</u> <u>(lb/hr)</u>	<u>NO_x</u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Boiler #1 (10.4 MMBtu/hr)	1.25	1.25	5.24	2.60	0.37	0.04
Boiler #2 (10.4 MMBtu/hr)	1.25	1.25	5.24	2.60	0.37	0.04
Boiler #3 (2.5 MMBtu/hr)	0.20	0.20	1.26	0.63	0.09	0.01
Boiler #4 (2.5 MMBtu/hr)	0.20	0.20	1.26	0.63	0.09	0.01

D. Emissions from the following boilers when firing natural gas shall not exceed the following: [06-096 CMR 115, BACT]

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM₁₀</u> <u>(lb/hr)</u>	<u>SO₂</u> <u>(lb/hr)</u>	<u>NO_x</u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Boiler #1 (10.4 MMBtu/hr)	0.52	0.52	0.01	1.04	0.88	0.06
Boiler #2 (10.4 MMBtu/hr)	0.52	0.52	0.01	1.04	0.88	0.06
Boiler #3 (2.5 MMBtu/hr)	0.125	0.125	0.001	0.25	0.21	0.01
Boiler #4 (2.5 MMBtu/hr)	0.125	0.125	0.001	0.25	0.21	0.01

E. Visible Emissions

1. Visible emissions from any single boiler firing distillate fuel shall not exceed 20% 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 (2)(B)(1)(b)]
2. Visible emissions from any single boiler firing natural gas shall not exceed 10% 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 (2)(B)(1)(c)]
3. Visible emissions from two or more of these boilers firing concurrently shall not exceed 20% 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 115, BACT]

(17) **Emergency Generator (Generator 1)**

- A. Generator 1 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 CMR 115]
- B. Emissions shall not exceed the following:

Unit	PM (lb/MMBtu)	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator 1 (5.85 MMBtu/hr)	0.12	0.70	0.70	0.30	18.72	4.97	0.53

- C. Visible emissions from Generator 1 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]
- D. Generator 1 shall meet the applicable requirements of 40 CFR Part 60, Subpart III, including the following:
 1. Manufacturer Certification
Generator 1 shall be certified by the manufacturer as meeting the emission standards for new non-road compression ignition engines found in 40 CFR §60.4202. [40 CFR §60.4205(b)]
 2. Ultra-Low Sulfur Fuel
The fuel fired in Generator 1 shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. Compliance with the fuel sulfur content limit shall be based on fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [40 CFR §60.4207(b) and 06-096 CMR 115]

3. Non-Resettable Hour Meter

A non-resettable hour meter shall be installed and operated on Generator 1. [40 CFR §60.4209(a)]

4. Operation and Maintenance

Generator 1 shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by Cary that are approved by the engine manufacturer. Cary may only change those emission-related settings that are permitted by the manufacturer. [40 CFR §60.4211(a)]

5. Annual Time Limit for Maintenance and Testing

Generator 1 shall 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 supplying power as part of a financial arrangement with another entity unless the conditions in 40 CFR §60.4211(f)(3)(i) are met). [40 CFR §60.4211(f)]

6. Recordkeeping

Cary shall keep records that include maintenance conducted on the engine and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours spent for emergency operation, including what classified each operation as emergency, and the number of hours spent for non-emergency purposes. If Generator 1 is operated during a period of demand response, 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 40 CFR §60.4211(f)(3)(i), Cary shall keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §60.4214(b)]

7. Annual Reporting Requirements for Demand Response Availability Over 15 Hours Per Year (for generators greater than 100 brake hp)

If Cary 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 40 CFR §60.4211(f)(3)(i), the facility shall submit an annual report containing the information in 40 CFR §60.4214(d)(1)(i) through (vii). The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports 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), accessed through EPA's Central Data Exchange

City of Caribou
d/b/a Cary Medical Center
Aroostook County
Caribou, Maine
A-385-71-P-R (SM)

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(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:

Director, Office of Ecosystem Protection
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, MA 02109-3912

[40 CFR §60.4214(d)]

- (18) Cary shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 3 DAY OF July, 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Corne for
PATRICIA W. AHO, 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 MRSA §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: May 27, 2014

Date of application acceptance: June 2, 2014

Date filed with the Board of Environmental Protection:

This Order prepared by Jane E. Gilbert, Bureau of Air Quality.

