



DEPARTMENT ORDER

**Casco Bay Energy Company, LLC**  
**Penobscot County**  
**Veazie, Maine**  
**A-728-70-E-A**

**Departmental**  
**Findings of Fact and Order**  
**Part 70 Air Emission License**  
**Amendment #1**

**FINDINGS OF FACT**

After review of the Part 70 License amendment 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**

FACILITY	Casco Bay Energy Company, LLC (CBEC)
LICENSE TYPE	Change, Part 70 Administrative Revision
NAICS CODES	221112, Fossil Fuel Electric Power Generation
NATURE OF BUSINESS	Electric Services
FACILITY LOCATION	125 Shore Road, Veazie, Maine

Casco Bay Energy Company, LLC (CBEC) is a power generation facility that began operation in 2000. Power is generated using combined cycle power generation technology. The Electric Generating System consists of combustion turbines, heat recovery steam generators, and a steam turbine generator, as well as associated supporting industrial equipment.

New Source Review (NSR) license A-728-77-2-M (issued March 15, 2018) clarified the licensed status of the inlet fogging systems associated with the Combustion Turbines. CBEC has requested that this NSR be incorporated into their Part 70 license.

CBEC has the potential to emit more than 100 tons per year (TPY) of nitrogen oxides (NO<sub>x</sub>), and carbon monoxide (CO) and 100,000 TPY of carbon dioxide equivalent (CO<sub>2</sub>e); therefore, the source is a major source for criteria pollutants. CBEC does not have the potential to emit 10 TPY or more of a single hazardous air pollutant (HAP) or 25 TPY or more of combined HAP; therefore, the source is an area source for HAP.

## B. Emission Equipment

The following emission units are addressed by this Part 70 License:

### Turbines

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (scf/hr)	Fuel Type, % sulfur	Mfr. Date	Install. Date	Stack #
Combustion Turbine #1	1937	2,039,000	Natural gas, neg.	1999	2000	1
Combustion Turbine #2	1937	2,039,000	Natural gas, neg.	1999	2000	2

## C. Application Classification

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

A Part 70 Administrative Revision is for license changes that correct typographical errors; change the name, address, or phone number of any person or facility identified in the Part 70 license or a similar administrative change at the Part 70 source; or result in more frequent monitoring, reporting, recordkeeping or testing requirements. As defined in *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100, a Part 70 Administrative Revision may also be used to incorporate the terms and conditions of a New Source Review (NSR) air license, issued pursuant to *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115, into a Part 70 license.

The requested revision to clarify the license status of the inlet fogging systems associated with the Combustion Turbines meets the definition of a Part 70 Administrative Revision and has been processed under *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140.

## II. AMENDMENT DESCRIPTION

### 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 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 emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

## **B. Inlet Fogging Systems**

CBEC operates two General Electric GE 7FA combustion turbines with a combined nominal power output of 520 MW at design conditions (45° F, 60% relative humidity). During warmer weather, the turbines are only able to achieve approximately 488 MW of output. In February of 2001, CBEC installed inlet fogging systems on the turbines. The inlet fogging systems each function by reading the ambient temperature and humidity from a weather station and controlling five pumps that supply pressurized water to an array of fog nozzles. When triggered at warmer ambient temperatures, the pumps are activated individually in stages to optimally cool the inlet air of the turbine. Use of the inlet fogging systems allowed for increased output during warm weather to approximately 500 MW. In late 2001, CBEC identified blade erosion on the turbines' compressors and ceased use of the inlet fogging systems.

CBEC has determined that blade erosion is no longer a significant concern, and has proposed to resume use of the inlet fogging systems to optimize MW output in warmer weather.

To recommission the inlet fogging systems, the following maintenance will be performed:

- Replace O-rings, filters, and cover gaskets
- Change oil in system pumps
- Grease motors
- Inspect drive belts
- Line up water to system
- Individually run each pump by hand to verify operation
- Inspect each system, including the fog nozzle grid

The above maintenance activities are identical to the routine maintenance that would have been performed annually had the inlet fogging systems continued to be utilized since their installation.

Therefore, in NSR A-728-77-2-M, activities associated with recommissioning the inlet fogging systems were determined to constitute routine maintenance. The increased firing rate in warmer months will not exceed the 520 MW nominal operating output of the units as originally licensed, and emissions will remain well below licensed limits.

**ORDER**

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

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

The Department hereby grants the Part 70 License Amendment A-728-70-E-A pursuant to 06-096 C.M.R. 140 and the preconstruction permitting requirements of *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115 and subject to the conditions found in Air Emission License A-728-70-D-R, and the following conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in 06-096 C.M.R. ch. 115 for making such changes and pursuant to the applicable requirements in 06-096 C.M.R. ch. 140.

For each specific condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only**.

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.

Casco Bay Energy Company, LLC  
Penobscot County  
Veazie, Maine  
A-728-70-E-A

5

Departmental  
Findings of Fact and Order  
Part 70 Air Emission License  
Amendment #1

**SPECIFIC CONDITIONS**

No additional conditions are required.

DONE AND DATED IN AUGUSTA, MAINE THIS 4 DAY OF May, 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for  
PAUL MERCER, COMMISSIONER

**The term of this amendment shall be concurrent with the term of Air Emission License A-728-70-D-R.**

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: November 29, 2017

Date of application acceptance: November 30, 2017

Date filed with the Board of Environmental Protection:

This Order prepared by Benjamin Goundie, Bureau of Air Quality.

