



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

**FPL Energy Wyman LLC &
FPL Energy Wyman IV LLC
Cumberland County
Yarmouth, Maine
A-388-70-F-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 Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	FPL Energy Wyman LLC & FPL Energy Wyman IV LLC (FPLE Wyman)
LICENSE TYPE	Part 70 Administrative Revision
NAICS CODES	22112 Fossil Fuel Electric Power Generation
NATURE OF BUSINESS	850 MW electric generating facility
FACILITY LOCATION	Cousins Island, Yarmouth, Maine

FPLE Wyman is an 850-megawatt electric generating facility consisting of four electrical generation units (boilers), a smaller oil-fired auxiliary boiler which provides building heat and auxiliary steam, and a back-up diesel generator.

FPLE Wyman is an existing stationary source currently operating under a Part 70 license (A-388-70-E-R, issued April 26, 2012). FPLE Wyman is considered a Part 70 major source as defined in *Definitions Regulations*, 06-096 Code of Maine Rules (CMR) 100 (as amended).

FPLE Wyman has requested clarification of the calculation method for determining the rolling 90 operating-day average for the NO_x lb/MMBtu limits on Units #3 and #4 since the term isn't specifically defined in the license. There are also two small wording corrections to be made.

B. Emission Equipment

The calculation method used to determine compliance with NO_x emissions limits on Units #3 and #4 is addressed in this Part 70 License amendment. Unit #3 is an 1190 MMBtu/hr oil fired boiler and Unit #4 is a 6290 MMBtu/hr oil fired boiler.

C. Application Classification

A Part 70 Administrative Revision may be utilized 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 06-096 Code of Maine Rules (CMR) 100, a Part 70 Administrative Revision may also be used to incorporate the terms and conditions of a major New Source Review air license issued pursuant to 06-096 CMR 115 into a Part 70 license.

The requested revision to clarify the calculation method for the rolling 90 operating-day average for the NO_x lb/MMBtu emission limits for Units #3 and #4 meets the definition of a Part 70 Administrative Revision and the request has been processed under *Part 70 Air Emission License Regulations*, 06-096 CMR 140 (as amended).

II. PART 70 ADMINISTRATIVE REVISION REQUEST

A. Rolling 90 Operating-day Average Compliance Calculation Method

FPLE Wyman has requested clarification of the calculation method used to determine the rolling 90 operating-day average for the NO_x lb/MMBtu emission limits on Units #3 and #4 in the Part 70 license A-388-70-E-R. Special Conditions (15)(C)(2) and (16)(C)(2) include NO_x lb/MMBtu emission limits for each of the two units based on a “rolling 90 operating-day avg”. In the Findings of Fact portion of the license, Sections (II)(I)(4)(b) and (II)(J)(4)(b) describes the averaging time with slightly different phrasing: “90 operating-day rolling average”. The license does not specifically define how the calculations should be performed.

In the Part 70 license A-388-70-E-R, Special Conditions (15)(C)(2) and (16)(C)(2) state *[with additional corrections to be made shown in italics]*:

(15)(C)(2): Emissions from Unit #3 shall meet the following, either from Unit #3 alone or by averaging the emissions from Units #3 and #4 to meet the emission limit from each unit:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
NO _x Unit #3 alone	0.175 (rolling 90 operating-day avg)	06-096 CMR 145 and A-388-77-2-M (Nov. 2, 2010, BART)	-
NO _x each unit when Unit #3 and Unit #4 are averaged	0.165 (rolling 90 operating-day avg)	06-096 CMR 145 and A-388-77-2-M (Nov. 2, 2010, BART)	-

(16)(C)(2): Emissions from Unit #4 shall meet the following, either from Unit #3 *[to be corrected to Unit #4]* alone or by averaging the emissions from Units #3 and #4 to meet the emission limit from each unit:

Pollutant	Lb/MMBtu	Origin and Authority	Enforceability
NO _x Unit #4 alone	0.170 (rolling 90 operating-day avg)	06-096 CMR 145 and A-388-77-2-M (Nov. 2, 2010, BART)	-
NO _x Unit #3 and Unit #4 averaged	0.165 (rolling 90 operating-day rolling avg) <i>[to be corrected to remove the extra 'rolling' term]</i>	06-096 CMR 145 and A-388-77-2-M (Nov. 2, 2010, BART)	-

The Origin and Authority references in the above conditions use two different terms. Best Available Retrofit Technology (BART) air emission license A-388-77-2-M bases the NO_x emission limits on a “rolling 90 operating-day avg” and 06-096 CMR 145, *NO_x Control Program*, bases the NO_x emission limits on a “90-day rolling average”. However, 06-096 CMR 145 no longer applies to the facility due to the approval of the State’s NO_x waiver request for the entire State as published in the Federal Register on July 2, 2014. In light of potential varying interpretations of the averaging time terms, establishment of a clear calculation method based on the applicable license language is needed.

For clarification purposes, the following language shall be added to the Part 70 license through this Part 70 Administrative Revision:

“Rolling 90 operating-day avg” for the purposes of determining compliance with the NO_x lb/MMBtu emission rate shall be defined as the NO_x emission rate calculated as the arithmetic average of all hourly emission rates of NO_x for 90 successive boiler operating days. Each

boiler operating day shall establish a new rolling 90-operating day average period.

This calculation method is consistent with the methods defined in the federal rules. Compliance with the 30-day rolling averages for NO_x in the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Db, §60.46b(e)(2) is determined by the following: “a new 30-day rolling average emission rate is calculated for each steam generating unit operating day as the average of all of the hourly NO_x emission data for the preceding 30 steam generating unit operating days.” Compliance with the 30-boiler operating day rolling average basis for mercury in the National Emission Standards for Hazardous Air Pollutants (NESHP) 40 CFR Part 63, Subpart UUUUU, Appendix A, §6.2.2.3 is calculated using the following (equation A-5):

$$\bar{E}_o = \frac{\sum_{h=1}^n E_{ho}}{n}$$

Where:

E_o = Emission rate for the averaging period

E_{h0} = Hourly Emission rate

n = Number of operating hours in the averaging period

The Part 70 Administrative Revision request included an example of calculations utilizing data from the FPLE Wyman facility and the proposed averaging time definition.

The Department approves replacing Special Conditions (15)(C)(2) and (16)(C)(2) in Part 70 license A-388-70-E-R with language that includes the two wording corrections noted above and the added definition of “rolling 90 operating-day avg”.

B. Facility Annual Emissions

FPL Wyman’s annual emissions are not changing with this Administrative Amendment and shall remain as currently licensed.

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 A-388-70-F-A pursuant to 06-096 CMR 140 and the preconstruction permitting requirements of 06-096 CMR 115 and subject to the conditions found in Air Emission License A-388-70-E-R and in the following conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in 06-096 CMR 115 for making such changes and pursuant to the applicable requirements in 06-096 CMR 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, 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.

The following shall replace Special Condition (15)(C)(2) in Part 70 license A-388-70-E-R (April 26, 2012):

(15)(C)...

2. Emissions from Unit #3 shall meet the following, either from Unit #3 alone or by averaging the emissions from Units #3 and #4 to meet the emission limit from each unit:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
NO _x Unit #3 alone	0.175 (rolling 90 operating-day avg)	A-388-77-2-M (Nov. 2, 2010, BART)	-
NO _x each unit when Unit #3 and Unit #4 are averaged	0.165 (rolling 90 operating-day avg)	A-388-77-2-M (Nov. 2, 2010, BART)	-

“Rolling 90 operating-day avg” for the purposes of determining compliance with the NO_x lb/MMBtu emission rate shall be defined as the NO_x emission rate calculated as the arithmetic average of all hourly emission rates of NO_x for 90 successive boiler operating days. Each boiler operating day shall establish a new rolling 90-operating day average period.

The following shall replace Special Condition (16)(C)(2) in Part 70 license A-388-70-E-R (April 26, 2012):

(16)(C)...

2. Emissions from Unit #4 shall meet the following, either from Unit #4 alone or by averaging the emissions from Units #3 and #4 to meet the emission limit from each unit:

Pollutant	Lb/MMBtu	Origin and Authority	Enforceability
NO _x Unit #4 alone	0.170 (rolling 90 operating-day avg)	A-388-77-2-M (Nov. 2, 2010, BART)	-
NO _x Unit #3 and Unit #4 averaged	0.165 (rolling 90 operating-day avg)	A-388-77-2-M (Nov. 2, 2010, BART)	-

“Rolling 90 operating-day avg” for the purposes of determining compliance with the NO_x lb/MMBtu emission rate shall be defined as the NO_x emission rate calculated as the arithmetic average of all hourly emission rates of NO_x for 90 successive boiler operating days. Each boiler operating day shall establish a new rolling 90-operating day average period.

DONE AND DATED IN AUGUSTA, MAINE THIS 6 DAY OF April, 2015.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:


PATRICIA W. AHO, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-388-70-E-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: February 25, 2015

Date of application acceptance: March 10, 2015

Date filed with the Board of Environmental Protection:

This Order prepared by Kathleen E. Tarbuck, Bureau of Air Quality.

