ExxonMobil Oil Corporation **Cumberland County** **South Portland, Maine** **A-282-77-1-M**	**Departmental** **Findings of Fact and Order** **New Source Review** **Amendment #1**

After review of the air emissions license amendment 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 Department finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	ExxonMobil Oil Corporation (ExxonMobil)
LICENSE TYPE	06-096 CMR 115, Minor Revision
NAICS CODES	42271
NATURE OF BUSINESS	Petroleum Storage & Distribution Terminal
FACILITY LOCATION	170 Lincoln Street, South Portland
NSR AMENDMENT ISSUANCE DATE	July 30, 2008

B. Amendment Description

ExxonMobil Oil Corporation (ExxonMobil) is licensed to operate several tanks for the storage of gasoline. All of these tanks are equipped with internal floating roofs. ExxonMobil has proposed allowing the storage of either ethanol or gasoline in the gasoline storage tanks. Since the potential VOC emission rate is lower for ethanol than for gasoline, this change will not result in any emissions increase.

ExxonMobil will blend the ethanol with gasoline for distribution and sale from the existing loading rack. ExxonMobil will also distribute ethanol from the loading rack. Expected future actual emissions increases from the storage and blending of ethanol is expected to be 0.74 ton/year. There is no anticipated increase in emissions from the control device (VCU) as there are no anticipated changes to controlled emissions measured in mg/l of product transferred.

C. Application Classification

The application for ExxonMobil does not violate any applicable federal or state requirements and does not reduce monitoring, reporting, testing or record keeping. This application does seek to modify a Best Available Control Technology (BACT) analysis performed per New Source Review.

Additionally, the modification of a major source is considered a major modification based on whether or not expected emissions increases exceed the "Significant Emission Increase Levels" as given in *Definitions Regulation*, 06-096 CMR 100 (last amended December 1, 2005).

Emissions of VOC from this new operation (storage and blending of Ethanol) is estimated to be 0.74 ton/year. Therefore, this amendment is determined to be a minor revision under *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 1, 2005) and has been processed as such.

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

B. Storage and Blending of Ethanol

ExxonMobil has proposed storage of either ethanol or gasoline in Tanks 28 and 29, but other existing gasoline storage tanks may be used for storing ethanol. These tanks are currently licensed to store gasoline. These tanks are currently equipped with internal floating roofs for control of VOC emissions.

ExxonMobil has also proposed the distribution of a gasoline/ethanol blend from the facility's loading rack. The loading rack is controlled by a Vapor Combustion Unit (VCU). The VCU is a John Zink thermal oxidizer, installed in 1996. The VCU controls emissions to 10 milligrams per liter of product loaded. The VCU utilizes natural gas to fuel the pilot flame on the VCU.

The use of internal floating roofs and the VCU are considered to be BACT for the storage and blending of ethanol at the facility.

C. Annual Emissions
ExxonMobil shall be limited to the following annual emissions:

Total Allowable Annual Emissions for the Facility
(used to calculate the annual license fee)

Pollutant	Tons/Year
NO_X	8.5
CO	21.0
VOC	135.4
highest single HAP	9.0
total speciated HAPs	14.1

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,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-282-77-1-M pursuant to the preconstruction licensing requirements of 06-096 CMR 115 and subject to the standard and special conditions below.

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.

(1) ExxonMobil shall not exceed a petroleum product throughput at the loading rack as follows (based on a 12 month rolling total): [06-096 CMR 115, BACT]

a. gasoline/ethanol: 500,000,000 gallons
b. distillate: 360,000,000 gallons

(2) ExxonMobil shall not exceed an emission limit of 3.0 tons per year of VOC from the storage and distribution of ethanol based on a 12 month rolling total. [06-096 CMR 115, BACT]

(3) Gasoline Storage Tanks

The following requirements apply to each of the gasoline storage tanks individually, unless otherwise noted.

A. Gasoline Storage Tanks are licensed to store either gasoline or ethanol. [06-096 CMR 115, BACT]

B. Gasoline Storage Tanks shall be equipped, maintained, and operated such that:
   1. There is an internal floating roof with closure seal(s) between the roof edge and the tank wall and these are maintained so as to prevent vapor leakage; [06-096 CMR 111]
   2. The internal floating roof and closure seal(s) will be maintained such that there are no holes, tears, or other openings in the seal or between the seal and the floating roof; [06-096 CMR 111]
   3. All storage tank openings, except stub drains, are equipped with covers, lids or seals which remain closed at all times; [06-096 CMR 111]
   4. All automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; [06-096 CMR 111]
   5. All rim vents, if provided, are to be set to open only when the roof is being floated off leg supports or at the manufacturers recommended setting; [06-096 CMR 111]
   6. If any holes, tears, or other openings are present the source shall notify the Department in writing within 10 calendar days of discovery of such holes, tears or other openings and the course of action to be taken for repair. The licensee shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested. If such holes, tears or other openings are present between June 1 and August 31, the licensee may contact the Department to request flexibility in order to make repairs outside the period restricting the emptying and degassing of tanks. [06-096 CMR 140, BPT]

C. ExxonMobil shall comply with the following source inspection requirements: [06-096 CMR 111]

   1. Routine inspections of floating roofs are conducted through roof hatches once every month.

2. A complete inspection of the cover and seal is to be performed at least once every ten years and each time the vessel is emptied and degassed. These inspections shall be conducted by visually inspecting the floating roof deck, deck fittings, and rim seals and may be conducted entirely from the top side of the floating roof as long as there is visual access to all deck components.
3. ExxonMobil shall not empty and degas any storage tank for the purpose of performing a complete inspection between June 1 and August 31 of each calendar year.

D. The following records shall be maintained at the source and available for inspection by the Department:

1. Inspection log documenting routine monthly inspections of floating roof covers and seals. [06-096 CMR 140, BPT]
2. Documentation of all complete inspections of covers and seals to be performed whenever the tank is emptied and degassed, at a minimum of once every ten years. [06-096 CMR 111]
3. Documentation of any detected leaks, holes, tears, or other openings and the corrective action taken. [06-096 CMR 140, BPT]
4. Monthly throughput specifying quantity and types of volatile petroleum liquids in each tank and the period of storage. [06-096 CMR 111]
5. Average monthly product storage temperatures and maximum true vapor pressures or Reid vapor pressures of volatile petroleum liquids stored. [06-096 CMR 111]
6. Calculations showing annual VOC emissions from equipment seals, and transfer piping and fittings determined in accordance with American Petroleum Institute, Manual of Petroleum Measurement Standard, Chapter 19, Section 2, Evaporative Loss from Floating Roof Tanks (method of calculating VOC emission from tanks). [06-096 CMR 115, BACT]

(4) The total annual emissions from ExxonMobil shall not exceed the following, based on a 12 month rolling total. [06-096 CMR 115, BACT]

Pollutant	Tons/Year
NO_X	8.5
CO	21.0
VOC	135.4
highest single HAP	9.0
total speciated HAPs	14.1

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2008.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
DAVID P. LITTELL, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 6/5/08
Date of application acceptance: 6/6/08

Date filed with the Board of Environmental Protection: _____

This Order prepared by Lynn Ross, Bureau of Air Quality.