



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

**Huhtamaki, Inc.
Kennebec County
Waterville, Maine
A-416-77-3-M**

**Departmental
Findings of Fact and Order
New Source Review
NSR #3**

FINDINGS OF FACT

After review of the New Source Review (NSR) 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., Section 344 and Section 590, the Maine Department of Environmental Protection (the Department) finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Huhtamaki, Inc.
LICENSE TYPE	06-096 CMR 115, Minor Modification
NAICS CODES	322299
NATURE OF BUSINESS	Molded Pulp Products Manufacturing
FACILITY LOCATION	242 College Avenue, Waterville, Maine

Huhtamaki, Inc. – Waterville (Huhtamaki) is a manufacturing facility that uses recycled newsprint, food board, milk carton stock, and other similar paper materials to produce molded pulp products. Cellulose fibers are mechanically cleaned, then vacuum drawn from liquid slurry onto wire dies, where they are formed, compressed, and dried into finished products. Finished products include paper plates, pizza trays, food trays, and other similar molded products. A small portion of the molded products are also laminated with a plastic film.

Huhtamaki, Inc. (Huhtamaki) operates under the following Air Emission Licenses:

<u>License #</u>	<u>Date of Issuance</u>	<u>Description</u>
A-416-70-D-R (Part 70 operating license)	October 9, 2012	Part 70 License Renewal
A-416-77-1-A (NSR #1)	March 23, 2012	New Source Review (NSR) license allowing the firing of natural gas in Boiler #5
A-416-77-2-A (NSR #2)	September 19, 2012	NSR license allowing the firing of natural gas in Boilers #2 and #3

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

Huhtamaki has the potential to emit more than 100 tons per year (TPY) of sulfur dioxide (SO₂) and nitrogen oxides (NO_x); therefore, the source is a major source for criteria pollutants. Huhtamaki is not a major source of hazardous air pollutants (HAPs) because it does not have the potential to emit more than 10 TPY of a single HAP or more than 25 TPY of combined HAPs; therefore, the source is an area source for HAPs.

B. Amendment Description

This minor revision to NSR Licenses #1 and #2 accomplishes two purposes:

1. To correct an inconsistent conversion factor used to calculate emission rates and the natural gas fuel cap for Huhtamaki's Boiler #5 in the facility's New Source Review (NSR) license A-416-77-1-A (issued March 23, 2012); and
2. To correct the combined tons per year emissions for assessing the annual license fee as contained in the facility's NSR license A-416-77-2-A (issued September 19, 2012).

C. Emission Equipment

The following equipment is addressed in this NSR license minor revision:

<u>Equipment</u>	<u>Max. Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate</u>	<u>Fuel Type, % sulfur</u>	<u>Year of Installation</u>	<u>Stack #</u>
Boiler #2	29.3	32 Mscf/hr ⁺	natural gas	1959	1
		195.3 gal/hr	#6 fuel oil, * 1.7% S		
Boiler #3	29.3	32 Mscf/hr ⁺	natural gas	1950	
		195.3 gal/hr	#6 fuel oil, * 1.7% S		
Boiler #5	64.8	63.53 Mscf/hr ⁺	natural gas	1966	3
		432 gal/hr	#6 fuel oil*, 1.7% S		

+ based on 1020 BTU/scf

* Propane and diesel fuel are used for start-up purposes. Additionally, specification waste oil is mixed into the #6 fuel oil tank. Emissions from these supplemental fuels are accounted for in the #6 fuel oil emissions.

D. Application Classification

The application for minor revisions to NSR licenses #1 and #2 does not violate any applicable federal or state requirements and does not reduce monitoring, reporting, testing, or recordkeeping requirements. This application does not seek to modify a Best Available Control Technology (BACT) analysis performed per New Source Review. The facility has requested minor revisions to correct an inconsistent conversion factor and to accurately detail the basis for establishing

the worst case emissions scenario upon which to establish the calculation of the annual license fee.

The values being revised neither increase the facility's expected emissions nor modify any air pollutant emitting equipment at the source. Therefore, this amendment is determined to be a minor modification to the NSR licenses #1 and #2 under *Minor and Major Source Air Emission License Regulations* 06-096 CMR 115 (as amended) since the changes being made are not addressed or prohibited in the Part 70 air emission license.

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 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.

It was determined that each unit at this facility is receiving BPT or BACT, as applicable, in the above cited Part 70 air emission license and the two NSR licenses. The rectification of numerical calculations does not change any of these BPT/BACT determinations.

B. Conversion Factor Adjustment

An inconsistent factor for converting MMBtu to millions of standard cubic feet (MMscf) of natural gas was used to develop the NSR #1 license. A conversion factor of 1050 Btu/scf was used, rather than EPA's AP-42 standard conversion factor of 1020 Btu/scf. This resulted in a 3% negative error in calculating the natural gas fuel use cap for Boiler #5, in MMscf. The equivalent energy use is not affected. Therefore, the revised fuel use cap for Boiler #5 is corrected to 503.2 MMscf rather than 488.8 MMscf originally stated in NSR license A-416-77-1-A.

C. Worst Case Emissions Scenario Clarification

For the purpose of calculating the combined tons per year of emissions in order to assess the annual licensing fee, several factors need to be considered, including the licensed fuel use caps, as follows:

- Boiler #5's use of #6 fuel oil is limited to 3,110,400 gallons/year, with fuel sulfur content not to exceed 1.7% by weight (as previously licensed).
- The facility-wide #6 fuel oil use is limited to 3.5 million gallons per year, with fuel sulfur content not to exceed 1.7% by weight (as previously licensed).
- Boiler #5's use of natural gas is limited to 503.2 MMscf/year (based on the conversion factor correction in this NSR license).
- The natural gas use in Boilers #2 and #3 combined is limited to 553.6 MMscf/year (as previously licensed).

Upon review of the existing lb/hour emission limits as specified in the current air emission license and emissions factors used for each fuel type in each boiler, the operating scenario for the facility which results in the highest emission levels is the following:

1. Boilers #2 and #3 fire #6 fuel oil continuously at their maximum rated capacities for 8760 hours/year (equal to 3,421,656 gallons);
2. Boiler #5 fires the oil remaining under the facility fuel use cap (equal to 78,344 gallons), since Boiler #2 and #3 are not physically capable of firing 3.5 million gallons of #6 fuel oil; and
3. Boiler #5 then fires natural gas up to its natural gas fuel use cap of 503.2 MMscf (after the annual fuel oil quantity is expended).

The resulting, facility-wide, worst-case annual emissions for the facility are presented in the table below and shall be the basis for calculation of the facility's annual licensing fee.

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

Units	PM	PM₁₀	SO₂	NO_x	CO	VOC
Boilers #2, #3, and #5, combined	41.6	41.6	466.1	157.6	30.2	3.7

D. Incorporation into the Part 70 Air Emission License

The requirements in this 06-096 CMR 115 New Source Review amendment shall apply to the facility upon amendment issuance. Per *Part 70 Air Emission License Regulations*, 06-096 CMR 140 (as amended), Section 1(C)(8), for a modification that has undergone NSR requirements or been processed through 06-096 CMR 115, the source must then apply for an amendment to the Part 70 license within one year of commencing the proposed operations as provided in 40 CFR Part 70.5.

ORDER

The Department hereby grants NSR Air Emission License Minor Revision A-416-77-3-M pursuant to the preconstruction licensing requirements of 06-096 CMR 115 and subject to the specific 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.

SPECIFIC CONDITIONS

This condition shall replace Specific Condition (1)(B) of NSR license A-416-77-1-A (March 23, 2012).

(1) **Boiler #5**

B. Natural gas use in Boiler #5 shall not exceed 503.3 MMscf/year. Compliance shall be demonstrated by fuel records from the supplier showing the quantity and type of the fuel used. Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. [06-096 CMR 115, BPT]

(2) **Incorporation into the Part 70 License**

Huhtamaki shall submit an application to incorporate this amendment into the Part 70 air emission license no later than 12 months from commencement of the requested operation. [06-096 CMR 140, Section 1(C)(8)]

DONE AND DATED IN AUGUSTA, MAINE THIS 10 DAY OF June, 2013.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Maic Allen Robert Corne for
PATRICIA W. AHO, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: April 1, 2013

Date of application acceptance: April 4, 2013

Date filed with the Board of Environmental Protection:

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



