



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE  
GOVERNOR

PATRICIA W. AHO  
COMMISSIONER

**General Alum New England Corp.  
Waldo County  
Searsport, Maine  
A-171-71-S-M**

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

**FINDINGS OF FACT**

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 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**

General Alum New England Corp., also known as GAC Chemical Corporation (GAC), was issued Air Emission License A-171-71-R-R on January 6, 2015 permitting the operation of emission sources associated with their chemical manufacturing facility.

GAC has requested a minor revision to their license in order to address additional products being produced by the Hollow Sphere Plastic Pigment (HSPP) process as well as the addition of two (2) 30,000 gallon storage tanks.

The equipment addressed in this license is located at 34 Kidder Point Road, Searsport, Maine.

**B. Emission Equipment**

The following equipment is addressed in this air emission license:

**Process Equipment**

<u>Equipment</u>	<u>Capacity</u>	<u>Pollution Control Equipment</u>	<u>Date Installed</u>
HSPP System	12,000 gal/day	Condenser	2013
HSPP Storage Tanks (2)	30,000 gallon	none	2015

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

C. Application Classification

This amendment will not increase emissions of any pollutant. Therefore, this amendment is determined to be a minor revision 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 *Definitions Regulation*, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment.

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

B. HSPP Process

GAC previously permitted their Hollow Sphere Plastic Pigment (HSPP) process for the production of water-based, non-hazardous HSPP polymer for use in paper mills, paint manufacturing, and possibly other industries.

GAC's current license states that the HSPP process equipment uses an emulsion polymerization technique of styrene to produce plastic pigment. GAC has begun production of similar products using this equipment which uses combinations of other monomers including methyl methacrylate, butyl acrylate, and 2-ethylhexyl acrylate as raw materials. Therefore, GAC has requested clarification in their license that this equipment may be used with other VOC/HAP containing raw materials other than styrene.

The HSPP process equipment includes a condenser that redirects emissions back into the reactor. Operation of the condenser whenever the HSPP process is in operation is determined to be BACT for the control of VOC and/or HAP from this process.

C. HSPP Storage Tanks

GAC has installed two (2) 30,000 gallon storage tanks as part of the HSPP process that can be used to store finished product or raw materials including butyl acrylate (a VOC) and methyl methacrylate (a VOC and HAP).

The storage tanks are not subject to *Standard of Performance for Volatile Organic Liquid Storage Vessels*, 40 CFR Part 60, Subpart Kb. Subpart Kb specifically exempts storage vessels with a capacity between 75 m<sup>3</sup> (20,000 gal) and 151 m<sup>3</sup> (40,000 gal) storing a liquid with a maximum true vapor pressure less than 15.0 kPa (§60.110b(b)). The vapor pressure of the current chemicals stored is well below this threshold.

GAC shall keep records of the materials stored in the tanks and the true vapor pressure of those materials to demonstrate they do not exceed 15.0 kPa.

D. Annual Emissions

This amendment does not result in any changes to licensed facility emissions.

**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-171-71-S-M subject to the conditions found in Air Emission License A-171-71-R-R and the following conditions.

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.

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The following are New Conditions:

- (29) The maximum true vapor pressure of the material stored in each of the HSPP Storage Tanks shall be less than 15.0 kPa. Compliance shall be demonstrated by recordkeeping of all materials stored in the tanks and the true vapor pressure of each.  
[06-096 CMR 115, BACT]

DONE AND DATED IN AUGUSTA, MAINE THIS 22 DAY OF May, 2015.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

The term of this amendment shall be concurrent with the term of Air Emission License A-171-71-R-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 4/27/15

Date of application acceptance: 4/27/15

Date filed with the Board of Environmental Protection:

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

