



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

**Woodland Pulp LLC
Washington County
Baileyville, Maine
A-215-70-M-A**

**Departmental
Findings of Fact and Order
Part 70 Air Emission License
Amendment #3**

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 (the Department) finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Woodland Pulp LLC (Woodland Pulp)
LICENSE TYPE	Part 70 Minor License Modification
NAICS CODES	32211
NATURE OF BUSINESS	Pulp Production
FACILITY LOCATION	144 Main Street, Baileyville, Maine

Woodland Pulp has the potential to emit more than 100 tons per year (TPY) of particulate matter (PM), Particulate Matter under 10 micrometers (PM₁₀), particulate matter under 2.5 micrometers (PM_{2.5}), sulfur dioxide (SO₂), nitrogen oxides (NO_x), and carbon monoxide (CO) and 50 TPY of volatile organic compounds (VOC) and 100,000 TPY of carbon dioxide equivalent (CO_{2e}); therefore, the source is a major source for criteria pollutants. Woodland Pulp has the potential to emit more than 10 TPY of a single hazardous air pollutant (HAP) or more than 25 TPY of combined HAP; therefore, the source is a major source for HAP.

Woodland Pulp has requested an amendment to its air emission license to incorporate the terms and conditions of New Source Review (NSR) License #7 (A-215-77-7-M) issued to the facility on July 5, 2013.

B. Emission Equipment

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

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

<u>Equipment</u>	<u>Production Rate</u>	<u>Primary Raw Materials</u>	<u>Pollution Control Equipment</u>
Bleach Plant	supports production of approximately 400,000 ADTP/year	Unbleached Pulp, ClO ₂ , NaOH, O ₂ , Hydrogen Peroxide, oxidized white liquor	Bleach Plant Scrubber

C. Application Classification

A Part 70 Minor License Modification is for a license change that meets the following criteria:

- Does not violate any Applicable requirement;
- Does not involve a Part 70 Significant License Modification to existing monitoring, reporting, or recordkeeping requirements in the license;
- Does not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impact or a visibility or increment analysis;
- Does not seek to establish or change a Part 70 license term or condition for which there is no corresponding underlying Applicable requirement, and that the source has assumed to avoid an Applicable requirement to which the source would otherwise be subject. Such terms and conditions include: A federally enforceable emissions cap assumed to avoid classification as a Title I modification or a modification or reconstruction under any provision of Section 111, or 112 of the Clean Air Act (CAA); and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the CAA;
- Is not a Title I modification or a modification or reconstruction under any provision of Section 111 or 112 of the CAA, and
- Is not required by the Department to be processed under Part 70 Significant License Modification procedures.

The request to incorporate the Bleach Plant configuration modifications authorized in NSR license A-215-77-7-M (July 5, 2013) is not a Part 70 Significant License Modification. The facility is not proposing substantial changes to existing monitoring and testing requirements, nor is it proposing the relaxation of existing license conditions (definition of Part 70 Significant License Modification).

The facility's request is classified as a Part 70 Minor License Modification and has been processed under *Part 70 Air Emission License Regulations*, 06-096 Code of Maine Rules (CMR) 140 (as amended).

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 (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 (as amended). BACT is a top-down approach to selecting air emission controls considering economic, environmental, and energy impacts.

B. Modification Description

On July 8, 2013, Woodland Pulp received NSR License A-215-77-7-A (NSR #7) for the facility's existing Bleach Plant to identify and operate alternate bleaching process scenarios in such a way as to reduce overall operating costs, energy consumption, and environmental impacts while still attaining the quality characteristics required of the product. On January 6, 2014, the facility submitted a "90 Day Bleaching Trial Report" which detailed the alternate bleaching system process. Once the reconfigured bleaching sequence was in operation, Woodland Pulp demonstrated compliance with the applicable state and federal regulations by the June 22, 2014 deadline.

To produce high quality, stable paper pulps, the industry utilizes bleaching methods to remove lignin from the pulp. Effective bleaching is achieved through a continuous sequence of process stages utilizing certain chemicals and conditions in each stage. Woodland Pulp is currently licensed to operate a bleach plant to support mill production of approximately 400,000 ADTP per year. Chlorine dioxide (ClO_2) generated on-site is used as a bleaching agent, and no elemental chlorine is used in the process. Hydrogen peroxide (P) is used to reinforce the alkaline extraction stage. Vent gases from the towers, washers, and seal tanks in the Bleach Plant where chlorinated bleaching chemical is applied and from the ClO_2 Generation System are conveyed to a packed-bed scrubber for treatment.

The bleaching system may utilize oxygen and/or oxidized white liquor, in addition to sodium hydroxide, chlorine dioxide, and hydrogen peroxide, with the intent to replace some of the chlorinated compounds historically used in the bleaching process with oxygen or oxidized white liquor and gain the ability to recycle more of the extracted lignin into the recovery process. The reconfigured

bleaching sequence includes a white liquor oxidizer, which yields hot oxygenated white liquor ready to be added to a stage in the bleaching process.

C. Regulatory Requirements

The facility shall continue to comply with Cl₂ and ClO₂ emission limits, periodic monitoring, and emissions testing requirements as specified in air emission license A-215-70-I-R/A (November 18, 2011) for the Bleach Plant and Chlorine Dioxide Generation System. Requirements applicable to the changes made to the bleaching process are presented in the following paragraphs.

1. 40 CFR Part 63, Subpart S

Bleach plants at kraft pulp mills are subject to the requirements of 40 CFR Part 63, Subpart S, *Standards for Hazardous Air Pollutants from the Pulp and Paper Industry*. According to Subpart S, 40 CFR §63.441, the bleaching system includes all process equipment after high-density pulp storage prior to the first application of oxidizing chemicals or reducing chemicals following the pulping system, up to and including the final bleaching stage. All changes made to the bleaching sequence as part of this modification are within the bleaching system, as defined.

Per 40 CFR §63.445, the equipment at each bleaching stage where chlorinated compounds are introduced must be enclosed and vented into a closed-vent system meeting the requirements specified in 40 CFR §63.450, and routed to a control device. The control device used to reduce chlorinated HAP emissions (not including chloroform) from the bleach plant shall comply with one of the following:

- (a) Reduce the total chlorinated HAP mass in the vent stream entering the control device by $\geq 99\%$ by weight;
- (b) Achieve a treatment device outlet concentration of ≤ 10 ppm by volume of total chlorinated HAP; or
- (c) Achieve a treatment device outlet mass emission rate of 0.002 pounds of total chlorinated HAP mass per ton of ODP.

Woodland Pulp complies with the guidelines to reduce chloroform emissions specified in 40 CFR §63.445(d) by not using hypochlorite or chlorine for bleaching in the bleaching system. [40 CFR §63.445(d)(2)]

Woodland Pulp shall comply with the emission limitations as specified in Subpart S.

2. Best Available Control Technology (BACT)

The Department finds that compliance with the standards and requirements of 40 CFR Part 63, Subpart S as applicable to the Bleaching System constitutes BACT for emissions from the system.

D. Annual Emissions

This minor modification does not result in any change to the annual emission limits contained in Woodland Pulp's Part 70 Air Emission License or any subsequently issued NSR licenses or amendments.

III. AMBIENT AIR QUALITY ANALYSIS

Woodland Pulp previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards (License A-215-71-AC-A, dated October 6, 1999). The Department finds an additional ambient air quality analysis is not required for this amendment.

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-215-70-M-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-215-70-I-R/A and in amendments A-215-70-K-A and A-215-70-L-A, and the following conditions.

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.

SPECIFIC CONDITIONS

The following shall replace Specific Condition (24) H of Air Emission License A-215-70-I-R/A. All other parts of this condition shall remain in effect unless amended in a subsequent licensing action.

(24) Bleach Plant/Chlorine Dioxide Generation System

H. The facility shall comply with the applicable emissions standards of 40 CFR Part 63, Subpart S §63.445; applicable monitoring requirements of §63.453; applicable recordkeeping requirements of §63.454; and applicable reporting requirements of §63.455.

DONE AND DATED IN AUGUSTA, MAINE THIS 4 DAY OF November, 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Maia Allen Robert Corse for
PATRICIA W. AHO, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-215-70-I-R/A.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: August 21, 2014

Date of application acceptance: August 22, 2014

Date filed with the Board of Environmental Protection:

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

