



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

**Verso Bucksport LLC
Hancock County
Bucksport, Maine
A-22-77-14-M**

**Departmental
Findings of Fact and Order
New Source Review
NSR #12**

FINDINGS OF FACT

After review of the air emissions license minor revision 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.), Section 344 and Section 590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

Facility	Verso Bucksport LLC (Verso Bucksport)
License Amendment Type	06-096 CMR 115 Minor Revision
NAICS Code	322121 (pulp mill that produces paper)
Nature of Business	Groundwood and thermomechanical pulp; papermaking
Facility Location	2 River Road, Bucksport, Maine

Verso Bucksport LLC (Verso Bucksport) operates an integrated pulp and paper mill, producing both groundwood and thermomechanical pulp on-site and lightweight coated groundwood papers on three paper machines. Additional ancillary mill operations include steam and power generation, wastewater treatment, intake water treatment, solid waste disposal, and fuel handling. Verso Bucksport is licensed as a major source through its Part 70 Air Emission License (A-22-70-A-I, December 30, 2004) with various Part 70 amendments and New Source Review amendments.

Verso Bucksport submitted a New Source Review minor revision application to remove the condition in A-22-77-11-A (January 17, 2014) which restricts simultaneous operation of Boiler 5 and the Gas Turbine.

B. Application Description

Verso Bucksport was issued an amendment (A-22-77-11-A) to convert Boiler 5 from #6 fuel oil to natural gas and in that amendment process, the facility proposed non-simultaneous operation of Boiler 5 and the Gas Turbine. Verso

Bucksport is now requesting removal of that restriction. The facility's emission limits will not be changing, including short term limits on each unit and the total annual tons per year caps for NO_x and CO for the two units combined.

C. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type
Boiler 5	371	356,000 scf/hr	natural gas
Combined Cycle Gas Turbine	1963	1,963,000 scf/hr	natural gas
	2082	14,871 gal/hr	#2 fuel oil

D. Application Classification

The application submitted by Verso Bucksport does not violate any applicable federal or state requirements, does not reduce monitoring, reporting, testing or record keeping.

The proposed revision will not change the facility's emission limits. Therefore, the amendment is determined to be a minor revision under *Minor and Major Source Air Emission License Regulations* 06-096 Code of Maine Rules (CMR) 115 (as amended). The procedures found in 06-096 CMR 115 (as amended) can be utilized to process this application since the proposed revision is not prohibited by the Part 70 air emission license. This minor revision shall be incorporated into the Part 70 air emission license renewal currently in process.

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.

B. Boiler 5 and Gas Turbine Operations

Verso Bucksport has submitted a minor revision to remove the restriction for non-simultaneous operation of Boiler 5 and the Gas Turbine. Boiler 5 is a Riley Stoker power boiler rated at a maximum heat input of 371 MMBtu/hr and was recently converted from firing #6 fuel oil to natural gas. The boiler was installed in 1966 and exhausts through a common 269 foot stack with Boiler 6. The Gas Turbine is a GE Frame 7 combined cycle gas turbine that fires natural gas and #2 fuel oil to produce a nominal 175 MW. The Gas Turbine commenced operations in October 2000 and includes a non-fired heat recovery steam generator (HRSG). The #2 fuel oil usage license limit for the Gas Turbine is 21,587,040 gallons/year.

As part of the initial licensing of the Boiler 5 conversion from #6 fuel oil to natural gas, Verso Bucksport requested a condition for the non-simultaneous operation of Boiler 5 and Gas Turbine, except during a transitional 12 hour period. The removal of this restrictive operating requirement will allow flexibility for various operational scenarios, including tune-ups after burner management changes, the occasional warm-up of Boiler 5 in preparation of a possible startup, etc. The previously submitted ambient air quality analysis included the simultaneous operation of both units. The NO_x and CO combined annual limits for Boiler 5 and the Gas Turbine shall remain at 250 tpy of NO_x and 120 tpy of CO.

The Department approves removing the following condition (2) from A-22-77-11-A, based on ambient air quality analysis results, no increases in short term emissions, and no changes to the NO_x and CO annual restrictions for the two units:

(2) Non-simultaneous Operation of Boiler 5 and the Gas Turbine

- a. Boiler 5 and the Gas Turbine shall not operate simultaneously, except for the transitional period when one unit is starting up prior to shutdown of the other unit. The transitional period shall not exceed 12 hours.
- b. Verso Bucksport shall maintain operating records for Boiler 5 and the Gas Turbine documenting compliance with the 12 hour transitional period allowance for startup and shutdown events when the units may operate at the same time.

C. 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. The Part 70 air emission license renewal application is currently pending and therefore, this minor revision application shall be considered an addendum to the renewal application and will be incorporated into the Part 70 air emission license renewal when processed.

D. Annual Emissions

1. Total annual licensed emissions from Verso Bucksport are not changing with this amendment. Verso Bucksport shall be restricted to the following annual emissions, based on a 12 month rolling total:

Total Licensed Annual Emission for the Facility
Tons/year
(used to calculate the annual license fee)

<u>Equipment</u>	<u>PM</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>NO_x</u>	<u>CO</u>	<u>VOC*</u>
Boilers 5, 6, 8, and the gas turbine	351	351	1400	1410	628	205
Off Machine Coater	-	-	-	29	-	-
TMP Process Vents	-	-	-	-	-	28.5
Groundwood Process Vents	-	--	-	-	-	144.5
Diesel Emergency Generators (Onan 1, 2, and 3 total)	2.3	2.3	0.3	17.4	1.7	0.6
TOTALS	353.3	353.3	1400.3	1456.4	629.7	378.6

* Paper machine VOC are noted, but not included since they are highly variable and unquantified at this time. TMP and groundwood VOC calculations are based on maximum capacity.

2. Greenhouse Gases

CO₂e is not used to calculate the annual fee and is not listed in the table above since Verso Bucksport is already classified as major for greenhouse gases and does not currently have annual restrictions imposed.

III. AMBIENT AIR QUALITY ANALYSIS

Verso Bucksport previously submitted an ambient air quality analysis for the biomass upgrade project for Boiler 8 (A-22-77-4-A, November 29, 2010) demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards. That analysis was performed with both Boiler 5 and the Gas Turbine operating simultaneously and Boiler 5 firing #6 fuel oil. The fuel in Boiler 5 has since been restricted to natural gas; therefore, emissions will be less than those included in the ambient air quality analysis. An additional ambient air quality analysis is not required for this minor revision.

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-22-77-14-M pursuant to the preconstruction licensing requirements of 06-096 CMR 115 and subject to the 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.

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SPECIFIC CONDITIONS

Condition (2) of air emission license A-22-77-11-A (January 17, 2014), which addressed non-simultaneous operation of Boiler 5 and the Gas Turbine, shall be deleted.

DONE AND DATED IN AUGUSTA, MAINE THIS 5 DAY OF December, 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Core for
PATRICIA W. AHO, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: November 7, 2014

Date of application acceptance: November 10, 2014

Date filed with the Board of Environmental Protection:

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

