



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI

GOVERNOR

DAVID P. LITTELL

COMMISSIONER

Verso Androscoggin LLC
Franklin County
Jay, Maine
A-203-77-3-A

Departmental
Findings of Fact and Order
Regional Haze
Best Available Retrofit Technology
Determination

After 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, § 582, § 590 and § 603, the Department finds the following facts:

I. Registration

A. Introduction

FACILITY	Verso Androscoggin LLC
INITIAL LICENSE NUMBER	A-203-70-A-I
LICENSE TYPE	BART Determination
NAICS CODES	322121
NATURE OF BUSINESS	Pulp and Paper Mill
FACILITY LOCATION	Jay, Maine
INITIAL LICENSE ISSUANCE DATE	January 12, 2005
AMENDMENT ISSUANCE DATE	October 31, 2008
LICENSE EXPIRATION DATE	January 12, 2010

Best Available Retrofit Technology (BART) is defined in 38 MRSA §582, sub-§5-C as an emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each visibility-impairing air pollutant that is emitted by an existing stationary facility. The emission limitation must be established, on a case-by-case basis, taking into consideration the technology available, the costs of compliance, the energy and non-air quality environmental impacts of compliance, any pollution control equipment in use or in existence at the source, the remaining useful life of the source, and the degree of improvement in visibility that may reasonably be anticipated to result from the use of such technology.

A facility is determined to have BART eligible emission units if the following criteria outlined in the Regional Haze Rule found in 40 CFR, Part 51 are met:

1. The facility falls into one of the 26 source specific categories identified in the Clean Air Act (CAA) of 1977,

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AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
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PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
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2. The facility has emission units that entered operation in the 15 years prior to the adoption of the CAA, and
3. The facility has the potential to emit more than 250 tons/year of a single visibility impairing pollutant from units that fall under criteria #2.

Pursuant to 38 MSRA §603-A, sub-§8; for those BART eligible units determined by the Department to require additional sulfur dioxide reductions to improve visibility, the reductions must:

1. Occur no later than January 1, 2013; and
2. Either:
 - a. Require the use of fuel oil containing no more than 1% sulfur by weight; or,
 - b. Be equivalent to a 50% reduction in sulfur dioxide emissions from a BART eligible unit based on a BART eligible unit source emission baseline determined by the Department under 40 CFR, Section 51.308 (d)(3)(iii)(2006) and 40 CFR, Part 51, Appendix Y (2006).

B. BART Eligible Emission Units

The following emission units have been determined to be BART eligible under 40 CFR, Part 51 for the Verso Androscoggin LLC (Verso Androscoggin) facility:

CAA Source Specific Category	Emission Unit	Unit Capacity	Date of Start-up
#3, Kraft Pulp Mill	Power Boiler #1	680 MMBtu/hr	1965
	Power Boiler #2	680 MMBtu/hr	1967
	Waste Fuel Incinerator (WFI)	480 MMBtu/hr on biomass and 240 MMBtu/hr on oil	1976
	Recovery Boiler #1	2.50 MMBtu/day of dry BLS	1965
	Recovery Boiler #2	3.44 MMBtu/day of BLS	1976
	Smelt Dissolving Tank #1	2.50 MMBtu/day of dry BLS	1965
	Smelt Dissolving Tank #2	3.44 MMBtu/day of dry BLS	1975
	"A" Lime Kiln	72 MMBtu/hr	1965
	"B" Lime Kiln	72 MMBtu/hr	1975
	Flash Dryer	84 MMBtu/hr	1964

II. EMISSION UNITS AND CONTROL EQUIPMENT DESCRIPTION

A. Power Boilers #1 & #2

Power Boilers #1 and #2 are each rated at 680 MMBtu/hr and began operation in 1965 and 1967, respectively. Power Boilers #1 and #2 are licensed to fire #6 fuel oil, #2 fuel oil, and used oil. The license currently limits the sulfur content of the fuel oil to no more than 1.8%, by weight. In addition, each boiler is equipped with low NO_x burners.

BART Determination

1. PM

Verso Androscoggin shall continue to operate each boiler in compliance with the PM emission limit of 0.20 lb/MMBtu contained in condition (14) of Air Emission License A-203-70-A-I.

2. SO₂

Verso Androscoggin shall reduce SO₂ emissions from these boilers by either:

- firing fuel oil that contains no more than 1.0% sulfur, by weight; or
- reducing sulfur dioxide emissions by at least 50% from a baseline amount determined by the Department under 40 CFR, Section 51.308 (d)(3)(iii)(2006) and 40 CFR, Part 51, Appendix Y (2006). The Department has determined the baseline amount for SO₂ emissions from Power Boilers #1 and #2 to be 6,031 TPY.

3. NO_x

Verso Androscoggin shall continue to operate each boiler in compliance with the NO_x emission limit of 0.447 lb/MMBtu contained in condition (14) of Air Emission License A-203-70-A-I.

4. VOC

Verso Androscoggin shall continue to operate each boiler in compliance with the VOC emission limit of 11.6 lb/hr contained in condition (14) of Air Emission License A-203-70-A-I.

B. Waste Fuel Incinerator (WFI)

The WFI is rated at 480 MMBtu/hr on biomass and 240 MMBtu/hr on oil and began operation in 1976. The WFI is licensed to fire biomass and fuel oil. Sulfur

dioxide and particulate matter emissions are controlled using a variable throat venturi scrubber and demister arrangement. In addition, the WFI is equipped with a combustion system designed to ensure the optimal balance between control of NO_x and limitation of CO and VOC.

BART Determination

1. PM
Verso Androscoggin shall continue to operate the boiler in compliance with the PM emission limit of 0.10 lb/MMBtu contained in condition (15) of Air Emission License A-203-70-A-I.
2. SO₂
Verso Androscoggin shall continue to operate the boiler in compliance with the SO₂ emission limit of 0.80 lb/MMBtu contained in condition (15) of Air Emission License A-203-70-A-I as this requirement is more stringent than BART requirements contained in 38 MSRA §603-A, sub-§8.
3. NO_x
Verso Androscoggin shall continue to operate the boiler in compliance with the NO_x emission limit of 0.40 lb/MMBtu contained in condition (15) of Air Emission License A-203-70-A-I.
4. VOC
Verso Androscoggin shall continue to operate the boiler in compliance with the VOC emission limit of 140.2 lb/hr contained in condition (15) of Air Emission License A-203-70-A-I.

C. Recovery Boilers #1 & #2

Recovery Boilers #1 and #2 are rated at 2.50 and 3.44 MMlb/day of dry black liquor solids (BLS), respectively and began operation in 1965 and 1976, respectively. Recovery Boilers #1 and #2 are licensed to fire black liquor and fuel oil. The license currently limits the sulfur content of the fuel oil to no more than 0.5%, by weight. Particulate matter emissions are controlled using an electrostatic precipitator (ESP).

BART Determination

1. PM

Verso Androscoggin shall continue to operate each recovery boiler in compliance with the PM emission limit of 0.035 gr/dscf (corrected to 8% O₂) contained in condition (16) of Air Emission License A-203-70-A-I as amended by Amendment #1 A-203-70-B-A.

2. SO₂

Verso Androscoggin shall continue to meet the fuel oil sulfur content limit of 0.5%, by weight contained in condition (16) of Air Emission License A-203-70-A-I as this requirement is more stringent than BART requirements contained in 38 MSRA §603-A, sub-§8. In addition, Verso Androscoggin shall continue to operate each recovery boiler in compliance with the SO₂ emission limit of 180 ppm_{dv} (corrected to 8% O₂) contained in condition (16) of Air Emission License A-203-70-A-I.

3. NO_x

Verso Androscoggin shall continue to operate each recovery boiler in compliance with the NO_x emission limit of 206 ppm_{dv} (corrected to either 8% O₂ or 12% CO₂) contained in condition (16) of Air Emission License A-203-70-A-I.

4. VOC

Verso Androscoggin shall continue to operate each recovery boiler in compliance with the VOC emission limit of 22.3 lb/hr contained in condition (16) of Air Emission License A-203-70-A-I.

D. Smelt Dissolving Tank #1

Smelt Dissolving Tank #1 is rated at 2.50 MMLb/day of dry BLS and began operation in 1965. Sulfur dioxide and particulate matter emissions are controlled using a dual-nozzle wet cyclonic scrubber which was installed in 1983.

BART Determination

1. PM

Verso Androscoggin shall continue to operate the smelt dissolving tank in compliance with the PM emission limit of 0.31 lb/ton of dry BLS contained in condition (17) of Air Emission License A-203-70-A-I as amended by Amendment #1 A-203-70-B-A.

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2. SO₂

Verso Androscoggin shall continue to operate the smelt dissolving tank in compliance with the SO₂ emission limit of 2.7 lb/hr contained in condition (17) of Air Emission License A-203-70-A-I as this requirement is more stringent than BART requirements contained in 38 MSRA §603-A, sub-§8.

E. Smelt Dissolving Tank #2

Smelt Dissolving Tank #2 is rated at 3.44 MMBtu/day of dry BLS and began operation in 1975. Sulfur dioxide and particulate matter emissions are controlled using a triple-nozzle wet cyclonic scrubber which was installed in 1976.

BART Determination

1. PM

Verso Androscoggin shall continue to operate the smelt dissolving tank in compliance with the PM emission limit of 0.13 lb/ton of dry BLS contained in condition (17) of Air Emission License A-203-70-A-I as amended by Amendment #1 A-203-70-B-A.

2. SO₂

Verso Androscoggin shall continue to operate the smelt dissolving tank in compliance with the SO₂ emission limit of 3.9 lb/hr contained in condition (17) of Air Emission License A-203-70-A-I as this requirement is more stringent than BART requirements contained in 38 MSRA §603-A, sub-§8.

F. "A" & "B" Lime Kilns

"A" and "B" Lime Kilns are each rated at 72 MMBtu/hr and began operation in 1965 and 1975, respectively. The lime kilns are licensed to fire #6 fuel oil, #2 fuel oil, propane, and specification and off-specification used oil. The license currently limits the sulfur content of the fuel oil to no more than 1.8%, by weight. Sulfur dioxide, particulate matter, and volatile organic compound emissions are controlled from "A" Lime Kiln using a fixed throat venturi scrubber and from "B" Lime Kiln using a variable throat venturi scrubber.

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BART Determination

1. PM

Verso Androscoggin shall continue to operate each lime kiln in compliance with the PM emission limit of 0.13 gr/dscf (corrected to 10% O₂) contained in condition (18) of Air Emission License A-203-70-A-I as amended by Amendment #1 A-203-70-B-A.

2. SO₂

Verso Androscoggin shall continue to meet the fuel oil sulfur content limit of 1.8%, by weight contained in condition (18) of Air Emission License A-203-70-A-I as well as continue to operate each lime kiln in compliance with the SO₂ emission limit of 6.7 lb/hr contained in condition (18) of Air Emission License A-203-70-A-I as this requirement is more stringent than BART requirements contained in 38 MSRA §603-A, sub-§8.

3. NO_x

Verso Androscoggin shall continue to operate each lime kiln in compliance with the NO_x emission limit of 120 ppmv (corrected to 10% CO₂) contained in condition (18) of Air Emission License A-203-70-A-I.

4. VOC

Verso Androscoggin shall continue to operate each lime kiln in compliance with the VOC emission limit of 1.4 lb/hr contained in condition (18) of Air Emission License A-203-70-A-I.

G. Flash Dryer

The Flash Dryer is rated at 84 MMBtu/hr and began operation in 1964. The flash dryer is licensed to fire #2 fuel oil, which contains a maximum sulfur content of 0.5% as defined by ASTM D396 standards. Particulate matter emissions are controlled using multiple cyclones and SO₂ emissions are limited through the firing of #2 fuel oil.

BART Determination

1. PM

Verso Androscoggin shall continue to operate the boiler in compliance with the PM emission limit of 5.0 lb/hr contained in condition (24) of Air Emission License A-203-70-A-I.

2. SO₂
Verso Androscoggin shall continue to fire #2 fuel oil as required by condition (24) of Air Emission License A-203-70-A-I as this requirement is more stringent than BART requirements contained in 38 MSRA §603-A, sub-§8.
3. NO_x
Verso Androscoggin shall continue to operate the flash dryer in compliance with the NO_x emission limits of 0.14 lb/MMBtu and 11.8 lb/hr contained in condition (24) of Air Emission License A-203-70-A-I.
4. VOC
Verso Androscoggin shall continue to operate the flash dryer in compliance with the VOC emission limit of 0.6 lb/hr contained in condition (24) of Air Emission License A-203-70-A-I.

H. Implementation Dates

The BART determinations for all pollutants from all of the BART eligible emission units except for SO₂ emissions from Power Boilers #1 and #2 are currently required by Verso Androscoggin's existing Air Emission License A-203-70-A-I. No further implementation is required for these determinations.

The BART determination option selected by Verso Androscoggin to reduce SO₂ emissions from Power Boilers #1 and #2 shall be implemented no later than January 1, 2013.

ORDER

The Department hereby grants Air Emission License A-203-77-3-A subject to the conditions found in Verso Androscoggin's existing Air Emission License A-203-70-A-I except where superseded by any subsequent amendments 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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BART SPECIFIC CONDITIONS

(1) Power Boilers #1 and #2

Verso Androscoggin shall reduce SO₂ emissions from these boilers by either:

- (a) firing fuel oil that contains no more than 1.0% sulfur, by weight; or
- (b) reducing sulfur dioxide emissions by at least 50% from a baseline amount determined by the Department under 40 CFR, Section 51.308 (d)(3)(iii)(2006) and 40 CFR, Part 51, Appendix Y (2006). The baseline amount for SO₂ emissions from Power Boilers #1 and #2 was determined by the Department to be 6,031 TPY. If this option is chosen, compliance shall be demonstrated through submission of the annual emission statement in accordance with Verso Androscoggin's Part 70 License and *Emission Statements*, 06-096 CMR 137.

Compliance with this requirement shall be attained no later than January 1, 2013.
[06-096 CMR 140, BART]

DONE AND DATED IN AUGUSTA, MAINE THIS 31st DAY OF October 2008.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Little
DAVID P. LITTLE, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date filed with the Board of Environmental Protection: _____

This Order prepared by Eric Kennedy, Bureau of Air Quality.

