



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



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GOVERNOR

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**Verso Androscoggin LLC
Franklin County
Jay, Maine
A-203-70-G-R/A**

**Departmental
Findings of Fact and Order
Part 70 Air Emission License
Renewal/Amendment**

FINDINGS OF FACT

After review of the Part 70 License renewal and amendment applications, 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	Verso Androscoggin, LLC
LICENSE TYPE	Part 70 License Renewal Part 70 Significant License Modification
NAICS CODES	322121
NATURE OF BUSINESS	Pulp & Paper Mill
FACILITY LOCATION	Riley Road, Jay, Maine

Verso Androscoggin LLC (Verso Androscoggin) is an integrated pulp and paper manufacturing facility located in Jay, Maine. Established in 1965, this facility utilizes both chemical and mechanical pulping processes to produce a wide variety of pulp and paper products. The facility is owned by Verso Corporation and operated as Verso Androscoggin, LLC. The facility will be referred to in this license by any of the following terms: Verso, Verso Androscoggin, the Androscoggin Mill, or the Mill.

The Androscoggin Mill has the potential to emit more than 100 tons per year (TPY) of particulate matter (PM), particulate matter under 10 micrometers in diameter (PM₁₀), particulate matter under 2.5 micrometers in diameter (PM_{2.5}), sulfur dioxide (SO₂), nitrogen oxides (NO_x), and carbon monoxide (CO); more than 50 TPY of volatile organic compounds (VOC); and more than 100,000 TPY of carbon dioxide equivalent (CO_{2e}); therefore, the source is a major source for criteria pollutants. Verso Androscoggin 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.

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B. Emission Equipment

Firing rates for fuel burning emission sources in this license are based on the following:

Natural gas firing rates are based on a heat content of 1020 Btu/ft³.

Propane firing rates are based on a heat content of 90,500 Btu/gallon.

#2 fuel oil firing rates are based on a heat content of 140,000 Btu/gallon.

Diesel fuel firing rates are based on a heat content of 137,000 Btu/gallon.

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

Unit	Max. Capacity	Fuel Type; % sulfur	Year of Installation	Stack #
Power Plant Boilers				
Power Boiler #1 (PB#1)	680 MMBtu/hr	#6 oil, distillate fuel, used oil; ≤ 0.7% by weight	1965	PB
Power Boiler #2 (PB#2)	680 MMBtu/hr		1967	
Boiler #3 (PB#3; formerly called the Waste Fuel Incinerator, or WFI)	480 MMBtu/hr (biomass) 240 MMBtu/hr (oil or natural gas)	Biomass, #6 oil, distillate fuel oil, used oil, pulp and paper WWTP sludge, natural gas	1976	PB3
Recovery Boilers and Smelt Dissolving Tanks				
Recovery Boiler #1 (RB1)	2.5 MMlb BLS/day	Black liquor, #6 oil, distillate fuel, used oil, natural gas	1965	CRB
	315 MMBtu/hr *		1975-1976	(Combined Recovery Boiler Stack)
Recovery Boiler #2 (RB2)	3.44 MMlb BLS/day			
	405 MMBtu/ hr *			
#1 Smelt Dissolving Tank (SDT#1)	2.5 MMlb BLS/day	N.A.	1965	SDT1
#2 Smelt Dissolving Tank (SDT#2)	3.44 MMlb BLS/day		1975-1976	SDT2
Recausticizing Area				
A Lime Kiln	80 MMBtu/hr (fuel firing)	fuel oil (including #6 fuel oil, distillate fuel, specification used oil and off-specification used oil); propane pilot gas, and natural gas	1965	LKA
	248 tons/day calcium oxide (CaO)			
B Lime Kiln	80 MMBtu/hr (fuel firing)		1975	LKB
	248 tons/day CaO			
A Slaker	248 tons/day CaO	N.A.	1965	Both vent inside a building; fugitive emissions
B Slaker	248 tons/day CaO		1975	
HVLC Source Group / RTO (Regenerative Thermal Oxidizer)				
~consists of emissions from multiple process units, collected and incinerated in the RTO				
RTO	8 MMBtu/hr	Propane, negligible	1995	RTO
		Distillate Fuel, 0.3%		
		Natural Gas, negligible		

<u>Unit</u>	<u>Max. Capacity</u>	<u>Fuel Type; % sulfur</u>	<u>Year of Installation</u>	<u>Stack #</u>
<i>Pulp Dryer and Paper Mill Units</i>				
#1 Paper Machine	N.A.	None	N/A	N/A
#2 Paper Machine				
#3 Paper Machine Infrared Dryers	13.92 MMBtu/hr	Propane, negligible	1999	PM3ID
		Natural Gas, negligible		
#4 Paper Machine 2 Infrared Dryers	9.6 MMBtu/hr	Propane, negligible	1996	PM4IR
		Natural Gas, negligible		
#4 Paper Machine 2 Air Flotation Dryers	4.0 MMBtu/hr (for each dryer)	Propane, negligible	1996	PM4FD
		Natural Gas, negligible		
#4 Paper Machine Soft-Nip Calender Roll	14.0 MMBtu/hr	Distillate Fuel, ASTM D396 compliant	1996	PM4CR
		Propane, negligible		
		Natural Gas, negligible		
#4 Paper Machine Trimvac paper trim collection vacuum system		N.A.	1996	(Multiple Stacks)
#5 Paper Machine			N.A.	N.A.
<i>Water Treatment Plant</i>				
WTP Main Furnace	3.1 MMBtu/hr	Distillate Fuel, ASTM D396 compliant	2004	Furnace Vent
WTP Small Furnace	1.05 MMBtu/hr		2014	Furnace Vent
<i>Wastewater Treatment Plant</i>				
WWTP Clarifiers, Wet Wells, and Lagoon	N.A.		1964	fugitive
<i>Groundwood Mill Source Group</i>				
#1- #6 Grinders and Grinder Flume; No. 1 and No. 2 Tailings Chests; No. 4 Rejects Refiner	480 ADTP/day	N.A.	1967	fugitive
<i>Bleach Plant Source Group</i>				
Bleach Plant A	1819 ADTP/day	N.A.	1965	Bleach Plant Scrubber Stack
Bleach Plant B			1975	
<i>LVHC Source Group</i>				
~ consists of emissions from multiple process units, collected and incinerated in the Lime Kilns				
<i>Condensate Source Group / Clean Condensate Alternative</i>				
~ consists of condensates from multiple process units, collected and controlled through the WWTP				
<i>Bulk Handling Systems Source Group</i>				
Recaust Lime Silos (2)	100 tons (each)	N.A.	1975	N.A.
Starch Silos (2 in Additives, 3 in Coating Prep)	100 tons (each)		Various Dates, 1980-2005	
WWTP Lime Silo	105 tons		1983	
Saltcake (Na ₂ SO ₄) Silo	100 tons		Prior to 1990	

<u>Unit</u>	<u>Max. Capacity</u>	<u>Fuel Type; % sulfur</u>	<u>Year of Installation</u>	<u>Stack #</u>
<i>Methanol Storage Tank / Gasoline Storage Tank</i>				
Methanol Storage Tank	14,600 gal	N.A.	1988	fugitive
Gasoline Storage Tank	10,000 gal		11-1-1988	
<i>Ancillary Mill Services</i>				
Landfill	N.A.		N.A.	N.A.
Propane Flares				
Temporary Units – if on-site longer than four weeks				
Steam Jenny	1.7 MMBtu/hr	Distillate oil (kerosene)	1982	fugitive

* This is the auxiliary fuel (fuel oil or natural gas) firing capacity only. The firing of black liquor at the rated MMlb BLS/day has the capacity to produce more energy output than the firing of fuel oil at maximum capacity.

Reciprocating Internal Combustion Engines (RICE)

The following classes of reciprocating internal combustion engines (RICE) are operated by Verso Androscoggin.

<u>Equipment</u>	<u>Output</u>	<u>Fuel Type, % sulfur</u>	<u>40 CFR Part 63, Subpart ZZZZ Unit Classification</u>
Existing Emergency RICE	≥ 500 HP	Distillate fuel,	Existing Emergency Stationary CI engines installed prior to December 19, 2002
Existing Emergency RICE	< 500 HP	0.0015% by weight	Existing Emergency Stationary CI engines

Pollution Control Equipment Summary

<u>Unit</u>	<u>Pollution Control Equipment</u>	<u>Pollutant(s) Controlled</u>
Power Boiler #1 (PB#1)	Low-NO _x Burners	NO _x
Power Boiler #2 (PB#2)		
Boiler #3 (PB#3)	Venturi Scrubber	PM, PM ₁₀ , SO ₂
Recovery Boiler #1 (RB1)	Rigid frame, dry bottom ESP (2 chambers, 4 fields per chamber)	PM, PM ₁₀
Recovery Boiler #2 (RB2)		
HVLC Source Group	RTO (incineration)	TRS, SO ₂ , VOC
Bleach Plant Scrubber Source Group	Cl ₂ Scrubber, ClO ₂ Scrubber per side	VOC, Cl, ClO ₂
No. 1 Smelt Dissolving Tank	Wet Scrubber	PM, PM ₁₀ , SO ₂ , TRS
No. 2 Smelt Dissolving Tank	Wet Scrubber	
A Lime Kiln B Lime Kiln	Wet Scrubber	PM, PM ₁₀ , SO ₂ , TRS

<u>Unit</u>	<u>Pollution Control Equipment</u>	<u>Pollutant(s) Controlled</u>
LVHC Source Group	A or B Lime Kiln (incineration)	NCGs
Condensates Source Group	Wastewater Treatment Plant Lagoon (biological degradation)	VOC
Bulk Handling System Source Group - Lime Silos, Starch Silos, Salt Cake Silos	Baghouses	PM

Verso Androscoggin has additional insignificant activities which do not need to be listed in the emission equipment tables above. The list of insignificant activities can be found in the Part 70 license application and in Appendix B of *Part 70 Air Emission License Regulations*, 06-096 CMR 140 (as amended).

C. Definition

Distillate Fuel. For the purposes of this license, *distillate fuel* means the following:

- Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
- Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- Kerosene, as defined in ASTM D3699;
- Biodiesel, as defined in ASTM D6751; or
- Biodiesel blends, as defined in ASTM D7467.

D. Application Classification

The application for Verso Androscoggin is for the renewal of their existing Part 70 license and subsequent Part 70 amendments. Pursuant to Section 2(A) of 06-096 CMR 140, Verso has also requested incorporation into the Part 70 license the relevant terms and conditions of the 06-096 CMR 115 New Source Review (NSR) licenses issued to Verso Androscoggin which have not previously been incorporated through a Part 70 license amendment. Verso has also requested the inclusion of a language change pertaining to distillate fuel fired in the No. 4 Paper Machine Calender Roll, as authorized in 40 CFR Part 70, Section 502 (b)(10).

Therefore, the license is considered to be a Part 70 License renewal with the incorporation into the Part 70 License of NSR requirements embodying Significant Modifications to the Part 70 License, and a Part 70, Section 502 (b)(10) Change, issued under *Part 70 Air Emission License Regulations*, 06-096 CMR 140.

E. Facility Description

Before presenting a summary of applicable determinations and other standards and requirements that apply to this facility, a general process description of the facility's manufacturing process is presented here.

Overview

Verso Androscoggin is an integrated pulp and paper manufacturing facility with equipment, operations, and supporting activities to produce bleached kraft pulp from a chemical pulping process and groundwood pulp from a mechanical pulping process. The pulp is used to make a wide variety of pulp and paper products. Bleached kraft pulp is produced in two separate lines, Pulp Mill A and Pulp Mill B. Groundwood pulp is produced in a third process line, the Groundwood Mill.

Woodyard

In the Woodyard area, logs and wood chips are received, stored, and processed for eventual use in the Kraft pulping process in the Pulp Mill or in the Groundwood Mill. The Mill uses both hardwood and softwood chips in the Kraft process and debarked logs in the Groundwood Mill. Logs are received and stored in separate hardwood, softwood, and spruce and fir log storage piles. Logs to be chemically pulped are debarked and chipped. Wood chips are conveyed either directly to chip storage silos or to chip storage piles. Additional, purchased chips are unloaded to chip storage piles for future reclaim to the silos or are directly loaded into the silos themselves. Chips are conveyed from the silos to a set of screens, and then sent to the Kraft process Pulp Mill. Bark generated by the debarkers and rejects from the chip screens are collected and sent to Boiler #3.

Emission units in the Woodyard area are determined to be "Categorically Exempt," in accordance with Appendix B of 06-096 CMR 140 and are therefore not addressed further in this Air Emission License.

Groundwood Mill

The Groundwood Mill receives debarked logs from the Woodyard. The logs are processed by a set of grinders, and then mixed with water to form groundwood pulp slurry, which is discharged to the Grinder Flume. From there, the groundwood pulp is screened, refined, cleaned, sent to deckers for thickening, then bleached and sent on to the Paper Mill.

Chemical Pulping Operations

In the chemical pulping operations, screened wood chips from the wood processing area are sent to either Pulp Mill A or Pulp Mill B. The A and B lines are composed of the following equipment:

Pulp Mill A	Pulp Mill B
<ul style="list-style-type: none">. a continuous digester. brown stock washing/screening units. pulp storage tanks. process liquid storage tanks. a pulp bleaching system, Bleach Plant A	<ul style="list-style-type: none">. a continuous digester. diffusion washing units. screening units. pulp storage tanks. process liquid storage tanks. a pulp bleaching system, Bleach Plant B

In each digester, wood chips are reacted with white liquor to form pulp, called brown stock, then washed and screened in the washers. Subsequently, the pulp is chemically whitened in a series of reaction towers and washers that make up the bleach plants.

Pulp entering Bleach Plant A passes through an oxygen delignification system that removes additional lignin. Both Bleach Plants A and B also receive pulp reclaimed from the Paper Mill. Chlorine Dioxide (ClO_2) used in the bleaching process is manufactured on site in a separate process system and can be directed to either bleach line. A dual scrubber system on each bleach line controls emissions from certain units in each bleach plant.

Pulp produced at the facility is either used in the Paper Mill Area or dried on the paper machines for storage and/or sale. Knots (undigested wood chips removed from the pulp by the screening units) are either recycled back to the digesters, land-filled on-site, sent off-site, or can be sent to Boiler #3 for energy recovery.

Pulping Chemicals Recovery

Filtrate called “weak black liquor” is collected from the brown stock washers and from the diffusion washers and sent to evaporators and concentrators for further processing. Chemical recovery operations associated with the Kraft pulping processes are carried out in two separate, parallel chemical recovery process lines, designated #1, or A; and #2, or B.

Weak black liquor contains organic lignin extracted from the wood chips in the digesters and inorganic pulping chemicals. Weak black liquor from the pulp mills is passed through multiple-effect evaporators, where it is concentrated to a solids level that will support combustion. The concentrated black liquor is then burned in the recovery boilers, the organics providing fuel to produce steam and the inorganic chemicals reduced to a smelt. The smelt flows from the bottom of each recovery boiler into a smelt dissolving tank, where it dissolves in weak wash or water to form green liquor. Green liquor is reacted with lime (CaO), producing white liquor and lime mud (CaCO_3). White liquor is stored for subsequent use in the digesters, and lime mud is washed to remove the remaining alkaline material, producing the filtrate called weak wash. Washed lime mud is then processed in Lime Kilns A and B to recover the lime for reuse.

Non-Condensable Gases

Low-volume, high-concentration (LVHC) non-condensable gases (NCG) collected from certain units throughout the Pulp Mill and Power House are routed to the A and B Lime Kilns for destruction by means of combustion. The high-volume, low-concentration (HVLC) gas from the A Digester chip bin is also routed to the lime kilns for destruction. HVLC emissions from certain other units are collected and incinerated in the Regenerative Thermal Oxidizer (RTO).

Condensable Gases

Condensable gases (foul condensates) from the digesters, evaporators, concentrators, and other units within the pulp mill are collected and treated in accordance with 40 CFR Part 63, Subpart S. The mill uses a closed collection system comprised of a network of piping, sewer lines, drains, junction boxes, and related equipment to convey the condensates to the aeration lagoon of the wastewater treatment plant, where they are biologically broken down. This means of controlling HAP emissions attributable to digester process condensates through biological treatment in a facility's waste water treatment plant is called hard piping, complying with the "hard-pipe" option described in 40 CFR §63.446 of Subpart S, in which pulping process condensates are collected and conveyed in a closed collection system and discharged below the liquid surface of a biological treatment system.

Paper Mill

The Paper Mill consists of all the equipment and operations used to convert pulp to paper or dried pulp, including stock preparation, additive preparation, coating preparation, starch handling, finishing, storage, and paper machines. Two of the paper machines, the #3 Paper Machine and the #4 Paper Machine, are equipped with several propane, natural gas, and/or oil fired fuel burning equipment.

Certain Paper Mill equipment within stock preparation, additives and coating preparation, starch handling, finishing, and on the paper machines is identified as insignificant activities per 06-096 CMR 140 Appendix B; this does not include units subject to emission or operating standards.

Additional Processes

Verso Androscoggin produces steam and electric power for mill operations with Recovery Boilers #1 and #2 and Power Boilers #1, #2, and #3. Electricity is also purchased from the grid. Mill operations are also served by the water and wastewater treatment facilities, a landfill, several small labs, maintenance and repair shops with insignificant activities, other insignificant activities, and temporary units.

F. General Facility Requirements

Verso Androscoggin is subject to the following state and federal air quality regulations listed below, in addition to the regulations listed for specific units as described further in this license.

<u>Citation</u>	<u>Requirement Title</u>
06-096 CMR 101	Visible Emissions
06-096 CMR 102	Open Burning
06-096 CMR 103	Fuel Burning Equipment Particulate Emission Standard
06-096 CMR 105	General Process Source Particulate Emission Standard
06-096 CMR 106	Low Sulfur Fuel
06-096 CMR 109	Emergency Episode Regulation
06-096 CMR 110	Ambient Air Quality Standard
06-096 CMR 116	Prohibited Dispersion Techniques
06-096 CMR 117	Source Surveillance
06-096 CMR 118	Gasoline Dispensing Facilities Vapor Control
06-096 CMR 124	Total Reduced Sulfur Control from Kraft Mills
06-096 CMR 130	Solvent Cleaners
06-096 CMR 134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds
06-096 CMR 137	Emission Statements
06-096 CMR 138	Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides
06-096 CMR 140	Part 70 Air Emission License Regulations
40 CFR Part 51	Best Available Retrofit Technology (BART)
40 CFR Part 60, Subpart BB	Standards of Performance for Kraft Pulp Mills
40 CFR Part 63, Subpart S	National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry
40 CFR Part 63, Subpart MM	National Emission Standards for Hazardous Air Pollutants For Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mill
40 CFR Part 63, Subpart ZZZZ	National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 CFR Part 63, Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters
40 CFR Part 64	Compliance Assurance Monitoring
40 CFR Part 68	Chemical Accident Prevention Provisions
40 CFR Part 70	State Operating Permit Programs

Note: CMR = Code of Maine Regulations
CFR = Code of Federal Regulations

G. Units of Measurement

The following units of measurement are used in this license:

acfm	actual cubic feet per minute
ADTFP/day	air-dried tons of finished product per day
ADTP/day	air-dried tons of pulp per day
g/s	grams per second
gal	gallon
gpm	gallons per minute
gr/dscf	grains per dry standard cubic foot
HP	horsepower
km	kilometers
lb/hr	pounds per hour
lb/MMBtu	pounds per million British Thermal Units
lb/ton	pounds per ton
lb/ton BLS	pounds per ton of black liquor solids
m	meters
m/s	meters per second
mg/dscm	milligrams per dry standard cubic meters
MMBtu/hr	million British Thermal Units per hour
MMlb BLS/day	million pounds black liquor solids per day
MMlbs	million pounds
MMscf/hr	million standard cubic feet per hour
MW	megawatt
µg/m ³	micrograms per cubic meter
ng/dscm	nanograms per dry standard cubic meter
ppm	parts per million
ppmv	parts per million by volume
psia	pounds per square inch (actual)
scf/hr	standard cubic feet per hour
tons/day	tons per day
tpy	tons per year

II. SPECIFIC APPLICABLE REGULATIONS

A. Best Practical Treatment (BPT)

In order to receive a license under the authority of 06-096 CMR 140, 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 existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering the following:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. NO_x RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides, 06-096 CMR 138 (as amended) is applicable to sources that have the potential to emit quantities of NO_x equal to or greater than 100 tons/year. Amendment A-203-71-R-A, issued to the facility on October 4, 1995, addressed NO_x RACT requirements, summarized below for the specified units. These NO_x RACT requirements are incorporated in this renewal.

Equipment	Summary of NO_x RACT Requirements
Power Boiler #1	Low-NO _x burners (Note: These boilers are now limited use, and CEMS are no longer required.)
Power Boiler #2	
Boiler #3	NO _x limit of 0.40 lb/MMBtu; NO _x CEMS
Recovery Boiler #1	NO _x limit of 206 ppmv (dry) @ 8% O ₂ or 12% CO ₂ ; NO _x CEMS on each unit's ducting before the combined stack
Recovery Boiler #2	
Lime Kiln A	NO _x limit of 120 ppmv (wet) @ 10% O ₂ ; NO _x stack test once every five years
Lime Kiln B	

C. VOC RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 CMR 134 (as amended) is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year. This chapter exempts VOCs emitted due to the incomplete combustion of any material, including all of the boilers addressed in this license. [06-096 CMR 134, Section 1(C)(4)] License Amendment A-203-71-R-A (October 4, 1995) addressed VOC RACT requirements, summarized below for the specified units:

Equipment	VOC RACT
Bleach Plant	Use of sodium hypochlorite as primary bleaching agent prohibited without a prior license revision
Wastewater Treatment Plant	Comply with terms and conditions of NPDES permit
Pulp Stock Washer Systems & Pulp Liquor Storage Tanks	Meeting VOC RACT as currently configured
Digester Systems A and B	Compliance with 06-096 CMR 124 (collection and incineration)
Multiple Effect Evaporator Systems A and B	
Smelt Tanks #1 and #2	Smelt Tank Scrubbers 1 & 2

<u>Equipment</u>	<u>VOC RACT</u>
Lime Kilns A and B	TRS emission limit of 20 ppmv (dry) @ 10% O ₂ (compliance with 06-096 CMR 124)

The VOC RACT requirements are incorporated in this renewal.

D. BART (Best Available Retrofit Technology)

The following units at the Verso Androscoggin facility are eligible BART sources as defined in 40 CFR Part 51, Subpart P, *Protection of Visibility*:

<u>Emission Unit</u>	<u>Unit Capacity</u>	<u>Date of Start-up</u>
Power Boiler #1 (PB#1)	680 MMBtu/hour	1965
Power Boiler #2 (PB#2)	680 MMBtu/hour	1967
Boiler #3	480 MMBtu/hour-on biomass 240 MMBtu/hour-on fossil fuel	1976
Recovery Boiler #1 (RB1)	2.50 MMLbs/day dry BLS	1965
Recovery Boiler #2 (RB2)	3.44 MMLbs/day dry BLS	1976
Smelt Dissolving Tank #1 (SDT#1)	2.50 MMLbs/day dry BLS	1965
Smelt Dissolving Tank #2 (SDT#2)	3.44 MMLbs/day dry BLS	1975
A Lime Kiln	72 MMBtu/hour	1965
B Lime Kiln	72 MMBtu/hour	1975

These units are required to meet BART requirements per 38 MRSA §582 (5)(C) and §603-A (8). A BART license, A-203-77-11-M, was issued on November 2, 2010, replacing the previous BART license. A summary of the BART findings for the identified units is presented below.

<u>Emission Unit</u>	<u>BART Determination</u>
Power Boiler #1 (PB#1)	Low-NO _x burners (for NO _x) Low sulfur (0.7% by weight) #6 fuel oil (for SO ₂) – as of January 1, 2013* Compliance with 40 CFR Part 63, Subpart DDDDD (for PM ₁₀)
Power Boiler #2 (PB#2)	
Boiler #3	Existing combustion controls (for NO _x) Continued use of existing wet scrubber system (for SO ₂) Compliance with 40 CFR Part 63, Subpart DDDDD (for PM ₁₀)
Recovery Boiler #1 (RB1)	Existing combustion controls (for NO _x and SO ₂) Compliance with current SO ₂ emission limit Compliance with 40 CFR Part 63, Subpart MM (for PM ₁₀)
Recovery Boiler #2 (RB2)	Existing combustion controls (for NO _x and SO ₂) SO ₂ emission limit of 150 ppmv (30-day rolling average) – as of January 1, 2013 Compliance with 40 CFR Part 63, Subpart MM (for PM ₁₀)
Smelt Dissolving Tank #1 (SDT#1)	Continued use of existing wet scrubber systems (for SO ₂ and PM ₁₀)

Emission Unit	BART Determination
Smelt Dissolving Tank #2 (SDT#2)	Compliance with 40 CFR Part 63, Subpart MM (for PM ₁₀)
A Lime Kiln	Low-NO _x burners (for NO _x) – referred to as “combustion control measures” on lime kilns Continued use of existing wet scrubber systems (for SO ₂ and PM ₁₀) Compliance with 40 CFR Part 63, Subpart MM (for PM ₁₀)
B Lime Kiln	

* Verso Androscoggin will be required by statute to further reduce SO₂ emissions from Power Boilers #1 and #2 beginning no later than January 1, 2018, by firing fuel oil containing no more than 0.5% sulfur by weight.

E. PSD/BACT Review

The Department issued NSR License A-203-77-1-M (November 1, 2006) to change the maximum allowed sulfur content of the #2 fuel oil used in the Water Treatment Main Furnace from 0.3% to the ASTM standard D396 for distillate fuel oil and to add the Water Treatment Small Furnace, previously considered an “Insignificant Activity,” to the license. This NSR license has since been incorporated into the facility’s Part 70 license.

Verso Androscoggin has received additional NSR licenses, specified below, since the issuance of the initial Part 70 license. These NSR licenses are incorporated into the facility’s Part 70 license in conjunction with this license renewal.

<u>NSR License</u>	<u>Date of Issuance</u>	<u>Pertaining To...</u>	<u>Brief Description</u>
A-203-77-2-M	January 19, 2007	#1 Recovery Boiler	Change RB1 combustion air delivery system and change liquor guns nozzle type
A-203-77-3-A	October 31, 2008	Facility	BART Determination [replaced by updated BART Determination per A-203-77-11-M (November 2, 2010)]
A-203-77-4-A	April 22, 2008	#1 Recovery Boiler	Replace upper furnace walls w/new membrane design; replace some boiler tubes in front wall area of upper furnace
A-203-77-5-A	January 6, 2009	Grinders Source Group	Replacing screen baskets, improving delivery system of wood, adding Mg(OH) ₂ , etc.
A-203-77-6-A	July 15, 2009	No. 4 Paper Machine Calender Roll	Fuel oil sulfur content change
A-203-77-8-A	November 20, 2009	No. 4 Paper Machine	Installation of additional steam drying capacity

<u>NSR License</u>	<u>Date of Issuance</u>	<u>Pertaining To...</u>	<u>Brief Description</u>
A-203-77-9-A	March 30, 2010	A Chip Bin and B Chip Bin A Flash Tank LVHC Source Group HVLC Source Group Condensates Source Group	Conversion from use of fresh steam to use of flash steam in A Chip Bin and clean condensate flash steam in A and B Chip Bins
A-203-77-10-M	September 10, 2010	#1 Recovery Boiler	Modification of ESP ash collection system
A-203-77-11-M	November 2, 2010	PB 1, 2, and 3; RB 1&2; SDT 1&2; LK A&B	BART (NO _x , SO ₂ , PM ₁₀)
A-203-77-12-A	September 16, 2011	B Lime Kiln	Burner upgrades to include natural gas
A-203-77-13-A	January 19, 2012	RTO No. 3 PM Infrared Dryers No. 4 PM Infrared Dryers No. 4 PM Air Flotation Dryers No. 4 PM Calender Roll A and B Lime Kilns	Addition of natural gas as a licensed fuel
A-203-77-14-A	March 12, 2012	#1 Recovery Boiler	Replacement of a section of the front wall, including replacement of tubes, smelt spouts, and primary air ports
A-203-77-16-M*	September 27, 2012	Chip Bins A & B	To correct and clarify applicability determinations and reporting requirements under Subpart S
A-203-77-17-A**	October 31, 2012	Lime Kilns A & B Power Boilers #1 and #2	Increase of LKs PM limits (gr/dscf) per recent scrubbers upgrade and testing; 10% annual average capacity factor on PB1 and PB2
A-203-77-18-A	February 14, 2013	#1 and #2 Recovery Boilers, Power Boiler #3	To license natural gas as an auxiliary fuel in RB1, RB2, and PB#3
A-203-77-19-A	February 8, 2013	No. 2 Paper Machine	Upgrades to improve reliability and performance
A-203-77-20-A	January 16, 2015	#1 Recovery Boiler	Replacement of economizers
A-203-77-21-A	February 20, 2015	WTP Small Furnace	Replacement

* NSR License A-203-77-16-A was incorporated into the Part 70 license via license amendment A-203-70-M-A (November 19, 2012).

** NSR License A-203-77-17-A was incorporated into the Part 70 license via license amendment A-203-70-P-A (May 13, 2013), which amendment also included an annual average capacity factor limit of 10% on Power Boilers #1

and #2 and the removal of the requirements for opacity monitors, NO_x CEMS, and regularly scheduled PM emissions testing on Power Boilers #1 and #2.

F. Compliance Assurance Monitoring (CAM)

Federal regulation 40 CFR Part 64, *Compliance Assurance Monitoring*, is applicable to units at major sources if the unit has emission limits, a control device to meet the limits, and pre-control emissions greater than 100 tons/year for any criteria pollutant. This regulation's 40 CFR §64.2(b)(1)(vi) exempts from specific CAM requirements emission units subject to emission limitations or standards for which a Part 70 air emission license specifies a continuous compliance determination method. Furthermore, 40 CFR §64.2(b)(1)(i) specifies the exemption from specific CAM requirements for any emission units subject to emission limitations or standards in a NSPS or NESHAP regulation proposed by the Administrator after November 15, 1990. [40 CFR §64.2(b)]

This table lists these emission units and criteria pollutants potentially subject to CAM, based on each unit having pre-control emissions greater than 100 tons per year of the specified pollutant(s), and the Department's determination of the applicability of CAM requirements for each, as shown in the Mill's CAM plan.

40 CFR Part 64 Applicability Table

	<u>Units</u>	<u>Eligible Pollutant</u>	<u>CAM Required</u>	<u>Reason CAM Is or Is Not Required</u>	<u>Regulatory Authority</u>
Bulk Handling Equipment	Coating Prep. and Additives	PM	Yes	Has emission limits, a control device to meet the limits, and pre-control emissions greater than 100 tons/year; is <i>not</i> subject to emission limitations or standards proposed by the Administrator after November 15, 1990, pursuant to Section 111 or 112 of the Clean Air Act (CAA); and is not required by the air emission license to operate a continuous compliance determination method, as defined in 40 CFR §64.1.	40 CFR §64.2(a) and (b)
	Starch Unloading				
	Recaust Lime Unloading				
	Power House Saltcake				
	WWTP Lime Unloading				
	RTO	SO ₂	Yes		
	Power Boiler #3	PM/PM ₁₀	No	Subject to emissions limits in NESHAP 40 CFR Part 63, Subpart DDDDD proposed after November 15, 1990	40 CFR §64.2(b)(1)(i)
		SO ₂	No	Operating a SO ₂ CEMS	40 CFR §64.2(b)(1)(vi)
	#1and #2 Lime Kilns	PM/PM ₁₀	No	Subject to emission limits in NESHAP 40 CFR Part 63, Subpart MM proposed after November 15, 1990	40 CFR §64.2(b)(1)(i)
		NO _x	No	No NO _x -specific control device	40 CFR §64.2(a)

	Units	Eligible Pollutant	CAM Required	Reason CAM Is or Is Not Required	Regulatory Authority
	Recovery Boilers #1 and #2	PM/PM ₁₀	No	Operating a COMS	40 CFR §64.2(b)(1)(vi)
		SO ₂	No	Operating a SO ₂ CEMS and No SO ₂ -specific control device	40 CFR §64.2(b)(1)(vi) and 40 CFR §64.2(a)
		NO _x	No	Operating a NO _x CEMS and No NO _x -specific control device	40 CFR §64.2(b)(1)(vi) and 40 CFR §64.2(a)

Therefore, Coating Prep. and Additives Starch Unloading, Recast Lime Unloading, Power House Saltcake, WWTP Lime Unloading, and the RTO are subject to CAM requirements. The CAM requirements are incorporated in this renewal.

G. NESHAP for Pulp Mills

Previous licenses and amendments issued to the Verso Androscoggin facility have cited MACT I and MACT II requirements and the steps the facility has taken to attain compliance with applicable requirements within allowed timeframes. These MACT phases are specifically identified by the U.S. Environmental Protection Agency (EPA) as follows:

MACT I: Controlling HAP emissions from the pulp and paper **production** areas of mills using the **kraft, sulfite, semi-chemical, and soda pulping processes**;

MACT II: Controlling HAP emissions from the pulping **chemical recovery combustion** areas of mills;

MACT III: Controlling HAP emissions from pulp and paper **production** areas of mills using **mechanical, secondary fiber, and non-wood pulping, and papermaking systems** at all mills; and

Standards originally established for both MACT I and III are integrated into one NESHAP subpart, 40 CFR Part 63, Subpart S. MACT II standards are in a separate NESHAP subpart, 40 CFR Part 63, Subpart MM. Specific requirements for the Verso Androscoggin facility are identified in this License by the Subpart in which they are specified.

1. 40 CFR Part 63, Subpart S

Verso Androscoggin is subject to the requirements of the federal regulation 40 CFR Part 63, Subpart S, *National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry*, which contains emissions standards; test methods and procedures; and monitoring, recordkeeping, and reporting requirements for emissions of HAP from a kraft process such as that

utilized by Verso Androscoggin's A and B Pulp lines. Affected sources include the pulping system, black liquor evaporation, and bleaching systems at the facility. Emissions from specified units are required to be collected and treated, either as part of a system collecting high volume, low concentration (HVLC) gases or a system collecting low volume, high concentration (LVHC) gases. At Verso Androscoggin, the collected LVHC gases are conveyed to a lime kiln or recovery boiler for destruction; A Chip Bin gases are collected and treated in the Lime Kilns; and the collected HVLC gases are conveyed to a dedicated unit, the Regenerative Thermal Oxidizer (RTO), for destruction. Condensates are treated in the wastewater treatment plant aeration basin.

Specific requirements of Subpart S applicable to units at the Verso Androscoggin Mill are included in this license.

2. 40 CFR Part 63, Subpart MM

Verso Androscoggin is subject to the requirements of 40 CFR Part 63, Subpart MM, *NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills*. Subpart MM includes requirements for the kraft process recovery boilers, lime kilns, and smelt dissolving tanks. Verso Androscoggin is using a PM limit "bubble" limit over the Recovery Boilers, Smelt Tanks, and Lime Kilns to comply with 40 CFR 63, Subpart MM PM standards. Only Smelt Tank No. 1 requires use of the bubble limit method. The PM limits and compliance language have been included in this license.

H. NESHAP 40 CFR Part 63, Subpart DDDDD: Boiler MACT

The federal regulation 40 CFR Part 63, Subpart DDDDD, *NESHAPs for Industrial, Commercial, and Institutional Boilers and Process Heaters*, establishes emissions limitations and work practice standards governing HAP emissions from units at major sources of HAPs and applies to each unit in the subcategories listed under *Types of Boilers and Process Heaters* (40 CFR §63.7499). This section addresses general requirements applicable to a unit subject to Subpart DDDDD. Requirements for individual boilers and process heaters at this facility are addressed in the area specific to each affected unit.

Energy Assessment

The facility shall complete a one-time energy assessment no later than January 31, 2016, or according to any amended requirements of the rule pertaining to the energy assessment. The energy assessment must include the elements specified in Part 4 of Table 3 of Subpart DDDDD, as applicable. [40 CFR §63.7500(e)]

Recordkeeping and Reporting

Verso Androscoggin shall maintain records in accordance with 40 CFR §63.7555 and containing information necessary to document compliance with all applicable requirements, in accordance with 40 CFR §63.10(b).

Verso Androscoggin shall submit compliance reports as required in 40 CFR §63.7550.

III. BEST PRACTICAL TREATMENT (BPT) AND EMISSION STANDARDS

This section describes the licensed emissions units and applicable requirements. For each unit, Verso Androscoggin accepts streamlining for standards for which there are more than one applicable requirement. Applicable emission standards, the origin and authority of each standard, and the applicable emission limits and associated averaging periods after streamlining, as appropriate, are presented in the “Emission Limits and Streamlining” table for each unit. The origin and authority of the most stringent limit upon which the final, streamlined emission limit is based is presented in **bold type** in each table, as applicable. Unless otherwise specified, the averaging times for the emission limits in the table are based on the specified averaging time of the applicable test method for each pollutant.

A. Power Boilers #1 and #2 (PB#1 and PB#2)

Power Boiler #1 and Power Boiler #2 were both manufactured by Babcock & Wilcox, each with a design heat input capacity of 680 MMBtu/hour. Power Boiler #1 was installed in 1965, and Power Boiler #2 was installed in 1967. Emissions from PB#1 and PB#2 exhaust through a common 300-foot above-ground-level (AGL) stack. PB#1 and PB#2 are licensed to fire #6 fuel oil, distillate fuel, and used oil.

The Best Available Retrofit Technology (BART) determination as established in NSR License A-203-77-11-M (November 2, 2010) requires the reduction of SO₂ emissions from PB#1 and PB#2 by firing fuel oil containing no more than 0.7% sulfur by weight by January 1, 2013, and by firing fuel oil containing no more than 0.5% sulfur by weight by January 2, 2018. These boilers are each equipped with retrofit low-NO_x burner systems utilizing low-NO_x burners.

Annual Capacity Factor Limit

As part of NSR License A-203-77-17-A (October 31, 2012), the use of PB#1 and PB#2 at the Verso Androscoggin facility was limited to a 10% annual capacity factor. At 100% capacity (680 MMBtu/hour each) firing #6 fuel oil, the total fuel oil fired by these boilers would be 79,424,000 gallons per year. With a 10% combined annual capacity factor, the total fuel oil fired by these boilers is limited to no more than 7,942,400 gallons per year of all fuel oils fired in the two boilers.

PB#1 and PB#2 shall operate with a combined 10% annual capacity factor limit, equivalent to a combined total fuel use limit of 7,942,400 gallons/year of fuel oil. Records documenting compliance with the annual average capacity factor limit shall be kept on a calendar year basis.

Control Equipment

Control Equipment for PB#1 and PB#2 consists of low-NO_x burners. These are not control equipment for the purposes of CAM applicability determination.

1. New Source Performance Standards (NSPS) , 40 CFR Part 60

PB#1 and PB#2 are not subject to the following New Source Performance Standards (NSPS) of 40 CFR Part 60 for the reasons as stated:

<i>Subpart</i>	<i>Applies to...</i>	<i>Justification of Non-Applicability</i>
Subpart D	Fossil-Fuel-Fired Steam Generators for which Construction is Commenced After August 17, 1971	These units were constructed prior to the applicability date.
Subpart Da	Electric Utility Steam Generating Units for which Construction is Commenced After Sept. 18, 1978	These units are not Electric Utility Steam Generating Units, per the definition in Subpart Da.
Subpart Db	Industrial-Commercial-Institutional Steam Generating Units	These units were constructed prior to the applicability date.
Subpart Dc	Small Industrial-Commercial-Institutional Steam Generating Units	These units have a capacity greater than 100 MMBtu/hour each.

2. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

PB#1 and PB#2 are subject to the applicable requirements of 40 CFR Part 63, Subpart DDDDD (Boiler MACT). Verso Androscoggin must comply with the requirements of this regulation applicable to limited use boilers no later than January 31, 2016, or as the rule is amended, or no later than the date established per a request for a compliance date extension made in accordance with 40 CFR §63.6(i). [40 CFR §63.7495(b)] Note that if the status of the Final Rule should change (subsequent to the final rule of January 31, 2013), the compliance date may also change.

Under Subpart DDDDD, PB#1 and PB#2 are each considered a Limited Use Boiler. As such, each boiler must be capped via a federally enforceable license condition to less than 10% average annual capacity factor (equivalent to 876 hours per year at full capacity).

PB#1 and PB#2 must each undergo a tune-up every five years as specified in 40 CFR §63.7540, as applicable if the boilers operate. As Limited Use

Boilers, these units are not subject to specific emission limits, the annual tune-up requirement, or the energy assessment requirements in Table 3 of Subpart DDDDD or the operating limits in Table 4 of Subpart DDDDD. [§63.7500(c)] There are no applicable emission limits under this Subpart and thus no corresponding performance test requirements.

The initial tune-up of PB#1 and of PB#2 must be completed following the procedures described in §63.7540(a)(10)(i) through (iv) no later than January 31, 2016, or as applicable if the rule is amended, or unless the facility is granted an extension of compliance in accordance with 40 CFR §63.6 (i). The tune-up is required if and when the boilers actually operate. [40 CFR §63.7495 (b)] Subsequent tune-ups are required every five calendar years, or as applicable. A compliance report is to be submitted after each tune-up, in accordance with Subpart DDDDD requirements.

3. Emission Limits and Streamlining

Power Boilers #1 and #2: Streamlining Summary

<u>Pollutant</u>	<u>Applicable Emission Standards</u>	<u>Origin and Authority</u>	<u>Emission Limits</u>
PM	0.20 lb/MMBtu	06-096 CMR 103, §2.A(1) and 06-096 CMR 140, BPT	0.20 lb/MMBtu
	232.0 lb/hr (combined emissions from Power Boilers #1 and #2)	A-203-70-A-I (Jan. 12, 2005), BPT	232.0 lb/hr (combined emissions from Power Boilers #1 and #2)
PM ₁₀	232.0 lb/hr (combined emissions from Power Boilers #1 and #2)	A-203-70-A-I (Jan. 12, 2005), BPT	232.0 lb/hr (combined emissions from Power Boilers #1 and #2)
SO ₂ : Fuel Oil Sulfur Content (% S)	#6 oil	2% S by weight	0.7% S #6 fuel oil until January 1, 2018
		0.7% S by weight	
		0.5% S #6 fuel oil beginning Jan. 1, 2018	0.5% S #6 fuel oil as of January 1, 2018
	Distillate fuel	2% S limit, by weight	Distillate fuel, ASTM D396 compliant (0.5% S)
		Distillate fuel ASTM D396 compliant (0.5% S)	
		0.005% S (50 ppm) fuel beginning July 1, 2016	0.005% S (50 ppm) distillate fuel as of July 1, 2016
		0.0015% S (15 ppm) fuel beginning Jan. 1, 2018	0.0015% S (15 ppm) distillate fuel as of Jan. 1, 2018
SO ₂ , lb/hr	996.43 lb/hr (combined emissions from Power Boilers #1 and #2)	A-203-70-A-I (Jan. 12, 2005), BPT	996.43 lb/hr (combined emissions from Power Boilers #1 and #2)

<u>Pollutant</u>	<u>Applicable Emission Standards</u>	<u>Origin and Authority</u>	<u>Emission Limits</u>
NO _x	0.447 lb/MMBtu	A-203-70-A-I (Jan. 12, 2005), BPT	0.447 lb/MMBtu, 1-hour basis
	518.5 lb/hr		518.5 lb/hr
CO	38.3 lb/hr	A-203-70-A-I (Jan. 12, 2005), BPT	38.3 lb/hr
VOC	11.6 lb/hr	A-203-70-A-I (Jan. 12, 2005), BPT	11.6 lb/hr

	<u>Applicable Emission Standards</u>	<u>Origin and Authority</u>	<u>Emission Limits</u>
Visible Emissions	Individual Units: 30% opacity on a 6-minute block average basis except for no more than two 6-minute block averages in a 3-hr period	06-096 CMR 101, §2(B)(1)(a)(i)	Individual Units: 30% opacity on a 6-minute block average basis except for no more than two 6-minute block averages in a 3-hour period Combined Stack: 30% opacity on a 6-minute block average basis, except for no more than three 6-minute block averages in a 3-hour period
Visible Emissions	Combined Stack: 30% opacity on a 6-min.block average basis, except for no more than three 6-min. block averages in a 3-hour period		

4. Emission Limit Compliance Methods

Compliance with the emission limits associated with PB#1 and PB#2 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

<u>Pollutant</u>	<u>Emission Limits</u>	<u>Compliance Method</u>	<u>Frequency</u>
PM	lb/MMBtu and lb/hour limits	40 CFR Part 60, App. A, Method 5	As requested
PM ₁₀	lb/hour limits	40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	
SO ₂	lb/hour limits	40 CFR Part 60, App. A, Method 6	
NO _x	lb/MMBtu and lb/hour limits	40 CFR Part 60, App. A, Method 7	
CO	lb/hour limits	40 CFR Part 60, App. A, Method 10	
VOC	lb/hour limits	40 CFR Part 60, App. A, Method 25 or 25A	
Visible Emissions	Limits for Individual Units and for Combined Stack	40 CFR Part 60, App. A, Method 9	

5. Periodic Monitoring

Periodic monitoring shall consist of recordkeeping which demonstrates fuel use and firing rates in PB#1 and PB#2 and delivery receipts or other records from the supplier showing the percent sulfur by weight of the fuel oil.

6. Parameter Monitors

Verso Androscoggin shall continuously monitor and record the fuel oil firing rate for each of PB#1 and PB#2.

7. CEMS and COMS

There are no CEMS or COMS required for emissions from PB#1 or PB#2, explained as follows:

a. NO_x CEMS

Chapter 138

Section (4)(6) of 06-096 CMR 138 requires compliance with 06-096 CMR 117 by May 31, 1996.

Chapter 117

In accordance with 06-096 CMR 117 (1)(B)(2), NO_x CEMS are not required on PB#1 and PB#2 because the two boilers are limited by a federally enforceable license condition to less than 30% annual capacity. [See NSR license 203 77 17-A (October 31, 2012) and this Part 70 license.]

b. COMS (Continuous Opacity Monitoring System)

Chapter 117

In accordance with 06-096 CMR 117 (1)(B)(1)(b), opacity monitors are not required on PB#1 and PB#2 because the two boilers are limited by a federally enforceable license condition to less than 30% annual capacity. [See NSR license 203-77-17-A (October 31, 2012) and this Part 70 license.]

B. Boiler #3

The multi-fuel biomass boiler, Boiler #3 – formerly called the Waste Fuel Incinerator, or WFI – is licensed to fire biomass, oil, and natural gas. Biomass includes de-watered pulp and paper WWTP sludge, and biomass (including bark, sawdust, wood, knots and screenings, etc.). The boiler may also fire cotton residue, sawdust imbued with oil, and waste papers. (Note: If federal Boiler MACT, CISWI, or secondary materials rules define these materials as waste, then they will not be fired in the boiler. Only alternative fuels meeting legitimacy criteria will be used.) Oil includes distillate fuels, #6 fuel oil, specification used oil, off-specification used oil, and oily rags*. All oil is limited to a maximum

sulfur content of 1.8% by weight and is used as startup/supplemental fuel. Natural gas is also used as startup and/or supplemental fuel.

- * In accordance with the terms and specifics of 40 CFR Part 279, *Standards for the Management of Used Oil*, oily rags (generated on-site in maintenance and/or clean-up activities), which “contain or are otherwise contaminated with used oil that are burned for energy recovery” are subject to regulation as *used oil* under this Subpart. [40 CFR §279.10 (c)(2)] According to 40 CFR §279.11, specification used oil may be burned for energy recovery in a boiler such as Verso Androscoggin’s Boiler #3. Per 40 CFR §279.12 (c), off-specification used oil may be burned for energy recovery in boilers (as defined in 40 CFR §260.10), such as Verso Androscoggin’s Boiler #3. All types of oil used at the facility which may be the “oil” in the “oily rags” category either fall within the definitions of specification waste oil or off-specification waste oil, or are specifically licensed to be burned in this boiler.

The firing rate capacity of Boiler #3 depends on the fuel or fuel mixture being combusted. Boiler #3 is licensed at the following firing rates:

Fuel	MMBtu/hour
Oil and/or Natural Gas	240
Biomass and Fossil Fuel (combined)	480 (24-hour block average)

Verso Androscoggin monitors the natural gas firing rate, fuel oil firing rate, biomass firing rate (through back-calculations), scrubber pressure drop, scrubber fluid flow rate, and total steam production for Boiler #3. The facility operates SO₂, O₂, and NO_x CEMS to monitor Boiler #3 emissions. Emissions from Boiler #3 exhaust through a 221-foot stack.

Control Equipment

Emissions from Boiler #3 are controlled by a variable throat venturi scrubber and demister arrangement, installed with a water spray into the demister. The scrubber media pH is controlled by a caustic solution, as required. Boiler #3 is also equipped with a combustion system designed to ensure the optimal balance between control of NO_x and limitation of CO and VOC.

1. New Source Performance Standards (NSPS), 40 CFR Part 60

Boiler #3 is not subject to the following New Source Performance Standards (NSPS) of 40 CFR Part 60 for the reasons stated:

<u>Subpart</u>	<u>Applicable to...</u>	<u>Justification of Non-Applicability</u>
Subpart D	Fossil-Fuel-Fired Steam Generators for which Construction is Commenced After August 17, 1971	Boiler #3 has federally enforceable limits that require the firing of fossil fuel at a lower rate than the Subpart D applicability rate of 250 MMBtu/hour. Verso monitors fossil fuel firing into the boiler documenting compliance with this cap. Thus, Boiler #3 is not subject to the NSPS requirements of Subpart D.
Subpart Da	Electric Utility Steam Generating Units for which Construction is Commenced After Sept. 18, 1978	Boiler #3 is not an Electric Utility Steam Generating Unit, per the definition in Subpart Da.
Subpart Db	Industrial-Commercial-Institutional Steam Generating Units	Boiler #3 was installed prior to June 19, 1984, the applicability date for this subpart, and has not been modified (as defined in 40 CFR §60.14) or reconstructed (as defined in 40 CFR §60.15) [See A-203-77-18-A (February 14, 2013).] Thus, Boiler #3 is not subject to the requirements of Subpart Db.
Subpart Dc	Small Industrial-Commercial-Institutional Steam Generating Units	This unit has a capacity greater than 100 MMBtu/hour. This Subpart applies to units with design heat input of 100 MMBtu/hour or less.

2. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

Boiler #3 is subject to the applicable emission standards, work practice standards, operating limits, performance testing, monitoring, and reporting requirements of 40 CFR Part 63, Subpart DDDDD (Boiler MACT). Verso Androscoggin must comply with the applicable requirements of this regulation no later than January 31, 2016, or as the rule is modified, or no later than the date established per a request for a compliance date extension made in accordance with 40 CFR §63.6(i). [40 CFR §63.7495(b)] Note that if the status of the Final Rule (Boiler MACT Final Rule of January 31, 2013) changes, the compliance date may also change.

a. Emission Limits

Verso Androscoggin shall comply with the applicable emission limits for pollutants specified in 40 CFR Part 63, Subpart DDDDD, Table 2. [40 CFR §63.7505(a)]

These emission limits shall apply at all times the affected unit is operating, except during periods of startup and shutdown, during which the source must comply only with applicable requirements of 40 CFR Part 63, Subpart DDDDD, Table 3. [40 CFR §63.7500(f)]

In accordance with and for the purposes of the standards and requirements pursuant to 40 CFR Part 63, Subpart DDDDD, the definitions of *startup*

and *shutdown* are as defined in 40 CFR §63.7575, or as modified in subsequent rule-making.

- b. Work Practice Standards and Operating Limits [40 CFR Part 63, Subpart DDDDD, Tables 3, 4, and 8]

Verso Androscoggin shall conduct an initial tune-up of Boiler #3 according to the procedures specified in 40 CFR §63.7540 no later than the initial tune-up due date established per 40 CFR §63.7495.

Subsequent tune-ups must be conducted at the frequency specified by Subpart DDDDD and as specified in 40 CFR §63.7540. [40 CFR §63.7510(e)]

- c. Performance testing for filterable PM (or TSM), HCl, Hg, and CO shall be conducted according to the specifics contained in Table 5 of 40 CFR Part 63, Subpart DDDDD; or alternate compliance demonstrations shall be followed as authorized under Subpart DDDDD.

The 30-day rolling average operating load of Boiler #3 shall be maintained such that it does not exceed 110% of the highest hourly average operating load recorded during the most recent performance test. [40 CFR Part 63, Subpart DDDDD, Table 4]

- d. Reporting requirements shall be in accordance with Table 9 of Subpart DDDDD, as applicable.

3. Reasonably Available Control Technology (RACT)

VOC RACT

06-096 CMR 134, exempts VOCs emitted from the incomplete combustion of any material, such as VOCs from Boiler #3. [06-096 CMR 134 (1)(C)(4)]

NO_x RACT

Boiler #3 is subject to 06-096 MCR 138 (NO_x RACT) and must meet the emission standard of 0.4 lb/MMBtu, for which compliance is demonstrated on a 24-hour block arithmetic average basis using a CEMS which satisfies the requirements of 06-096 CMR 117. [06-096 CMR 138 (4), (6) and (8)]

4. Emission Limits and Streamlining

Boiler #3: Streamlining Summary

Pollutant	Applicable Emission Standards	Origin and Authority	Emission Limits
PM	0.2 lb/MMBtu	06-096 CMR 103 (2)(A)(1)	0.10 lb/MMBtu or
	0.10 lb/MMBtu	A-203-70-A-I (January 12, 2005), BPT	Table 2 limit (except during startup/shutdown), as of the 40 CFR Part 63, Subpart DDDDD compliance date
	Table 2 Standard (except during startup and shutdown)	40 CFR Part 63, Subpart DDDDD, Table 2	
	48.0 lb/hr, 1-hr basis	A-203-70-A-I (January 12, 2005), BPT	48.0 lb/hr
PM ₁₀	48.0 lb/hr, 1-hr basis	A-203-70-A-I (January 12, 2005), BPT	48.0 lb/hr
SO ₂	2% fuel sulfur content	06-096 CMR 106(2)(A)(2)	Maximum #6 fuel sulfur content of 1.8% by weight until Jan. 1, 2018 Maximum #6 fuel oil sulfur content of 0.5% as of January 1, 2018
	0.5% S #6 fuel oil beginning Jan. 1, 2018	38 MRSA §603-A(1)&(2)	
	1.8% fuel sulfur content	A-203-70-A-I (January 12, 2005), BPT	0.8 lb/MMBtu, 3-hr rolling average basis
	0.8 lb/MMBtu, 3-hr rolling average basis		384.0 lb/hr, 3-hr rolling average basis
	384.0 lb/hr, 3-hr rolling average basis		
NO _x	0.40 lb/MMBtu, 24-hr block average basis	06-096 CMR 138 (4)(3)	0.40 lb/MMBtu, 24-hr block average basis, documented via NO _x CEMS
	192.0 lb/hr	A-203-70-A-I (January 12, 2005), BPT	192.0 lb/hr
CO	Table 2 standard @ 3% O ₂ , 3-run average (except during startup and shutdown)	40 CFR Part 63, Subpart DDDDD, Table 2	Table 2 limit @ 3% O ₂ , 3-run average (except during startup and shutdown) or as modified in the rule; or as a 30-day average if an alternative CEMS monitoring method is used.
CO	1200.0 lb/hr	A-203-70-A-I (January 12, 2005), BPT	1200.0 lb/hr
VOC	140.2 lb/hr	A-203-70-A-I (January 12, 2005), BPT	140.2 lb/hr
Visible Emissions	30% opacity on a six-minute block average basis except for no more than two six-minute block averages in a three-hour period	06-096 CMR 101, §2(B)(1)(a)(i)	30% opacity on a six-minute block average basis except for no more than two six-minute block averages in a three-hour period

Pollutant	Applicable Emission Standards	Origin and Authority	Emission Limits
HCl	Table 2 standard (except during startup and shutdown)	40 CFR Part 63, Subpart DDDDD, Table 2	Table 2 limit (except during startup and shutdown), as of the 40 CFR Part 63, Subpart DDDDD compliance date or as modified in the rule
Hg	Table 2 standard (except during startup and shutdown)	40 CFR Part 63, Subpart DDDDD, Table 2	Table 2 limit (except during startup and shutdown), as of the 40 CFR Part 63, Subpart DDDDD compliance date or as modified in the rule

5. Emission Limit Compliance Methods

Compliance with the emission limits associated with Boiler #3 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

Pollutant	Emission Limit	Compliance Method	Frequency
PM, PM ₁₀	lb/MMBtu and lb/hr limits	Emissions Testing according to 40 CFR Part 60, Appendix A, Method 5	Annually, or otherwise in accordance with 40 CFR Part 63, Subpart DDDDD *
SO ₂	lb/MMBtu limit	CEMS	Continuously
	lb/hr limit	Emissions Testing according to Applicable Method of 40 CFR Part 60, Appendix A	As requested
NO _x	lb/MMBtu limit	CEMS	Continuously
	lb/hr limit	Emissions Testing according to Applicable Method of 40 CFR Part 60, Appendix A	As requested
CO	ppmvd limit	Emissions Testing according to Applicable Method of 40 CFR Part 60, Appendix A; or CEMS if alternative monitoring is selected for Boiler MACT.	<u>As requested</u> if stack testing standard is chosen. <u>Annually</u> , or otherwise in accordance with 40 CFR Part 63, Subpart DDDDD *
	lb/hr limit	Emissions Testing according to Applicable Method of 40 CFR Part 60, Appendix A	As requested
VOC	lb/hr limit	Emissions Testing according to Applicable Method of 40 CFR Part 60, Appendix A	As requested
Visible Emissions	opacity limit	40 CFR Part 60, Appendix A, Method 9	As requested

* In accordance with 40 CFR §63.7515, if performance tests for a given pollutant for at least two consecutive years show emissions at or below

75% of the emission limit for that pollutant, and if there are no changes in the operation of the boiler or air pollution control equipment that could increase emissions, Verso may opt to conduct performance testing every third year on this unit. Such option and conditions shall be in accordance with the requirements and specifications of 40 CFR §63.7515.

6. Compliance Assurance Monitoring (CAM)

For Boiler #3, CAM requirements are not applicable to PM emissions because the boiler is subject to a NESHAP standard. SO₂ emissions are exempt from CAM requirements because the facility operates and maintains a SO₂ CEMS on this unit.

7. Periodic Monitoring

Periodic monitoring shall consist of regular, recurring recordkeeping of fuel use and firing rates in Boiler #3, including percent sulfur by weight of fuel oil from delivery receipts or other records from the supplier, and a metals analysis for used oil.

Verso Androscoggin shall monitor and record values for Boiler #3 and its associated air pollution control equipment as indicated in the following table whenever the equipment is operating.

<u>Value</u>	<u>Frequency</u>
Fuel Oil Firing Rate	Continuously* when firing this fuel
Total Primary and Secondary Sludge to Boiler #3	
Total Paper Pellets	Monthly
Total Biomass	
Natural Gas Firing Rate	Continuously*
Total Steam Production	Continuously*

* For periodic monitoring purposes, *continuously* shall mean at least one data value recorded every 15 minutes; three data points constitute a valid hour. Two data points constitute valid data during maintenance and calibration periods.

8. Parameter Monitors

Verso Androscoggin shall monitor and record parameters for Boiler #3 and its associated Venturi scrubber as indicated in the following table whenever the equipment is operating. Verso Androscoggin is not required to operate the Venturi scrubber when firing natural gas only.

<u>Parameter</u>	<u>Frequency</u>
Scrubber Differential Pressure	Continuously*
Scrubbing Fluid Flow Rate	

<u>Parameter</u>	<u>Frequency</u>
Scrubbing liquid pH (if HCl compliance is demonstrated through emissions testing)	Continuously*
Boiler O ₂ (if CO compliance is demonstrated through the emissions testing alternative)	Continuously*

* For parameter monitoring purposes, *continuously* shall mean at least one data value recorded every 15 minutes. Upon the applicability of 40 CFR Part 63, Subpart DDDDD, scrubber monitoring will be in accordance to the requirements of 40 CFR §63.7525 and §63.8, as applicable.

9. CEMS

For Boiler #3, the following are required continuous emission monitoring systems (CEMS):

<u>Pollutant/ Monitor</u>	<u>Units of Measurement</u>	<u>Origin and Authority</u>
SO ₂	lb/MMBtu	06-096 CMR 117 and 140, BPT
NO _x	lb/MMBtu	06-096 CMR 138 and 117
O ₂	ppm or %	06-096 CMR 117, 138, and 140; BPT

C. Recovery Boilers Source Group

Verso Androscoggin operates two recovery boilers, RB1 and RB2, as part of the chemical recovery portion of the pulping process.

<u>Unit</u>	<u>Primary Fuel</u>	<u>Maximum Capacity, Primary Fuel</u>	<u>Secondary Fuel(s)</u>	<u>Maximum Capacity, Secondary Fuel(s)</u>	<u>Stack #</u>
RB1	Black Liquor	2.5 MMlbs dry BLS ¹ /day	fuel oil ²	315 MMBtu/hour	CRB
RB2		3.44 MMlbs dry BLS ¹ /day	natural gas	405 MMBtu/hour	

¹ BLS ≡ black liquor solids

² including #6 fuel oil, specification waste oil, off-specification waste oil, and distillate fuel oil; with a maximum sulfur content of 0.5% by weight. The term “waste oil” used in this license is as defined in 06-096 CMR 860, *Waste Oil Management Rules*.

Note: Distillate fuel oil has historically been and continues to be used as a de-foaming agent in black liquor. Distillate fuel oil use is monitored by tank level drop and purchasing records and prorated to the boilers based on black liquor firing records.

RB1 was manufactured by Combustion Engineering in 1964 with a maximum process rate of 2.50 MMlbs dry black liquor solids (BLS) per day. It was

installed at the facility in 1965 and converted to a low-odor design in 1985. The conversion of RB1 in 1985 did not result in an emission increase on a lb/hour basis, nor did the total cost of the project exceed 50% of the fixed capital projected cost for a comparable new recovery boiler.

RB2 was manufactured by Babcock & Wilcox in 1976 with a maximum process rate of 3.44 MMBtu dry BLS per day. Both recovery boilers have undergone significant maintenance and upgrades since the early 1990s, including inclusion of a low sulfur fuel oil system, improvements in the operation and effectiveness of the control equipment, improvements in the air systems, replacement of parts of the furnace wall tubes, and other projects to maximize the efficiency of the two units. These changes and improvements are addressed in several air emission license amendments found in the facility's files maintained by the Department.

RB1 and RB2 are licensed to fire black liquor, natural gas, and fuel oil (including #6 fuel oil, specification waste oil, off-specification waste oil, and distillate fuel). The fuel oil fired is allowed to contain a maximum sulfur content of 0.5% by weight. Both natural gas and fuel oil may be used as startup/supplemental fuel. The two recovery boilers have the following maximum design auxiliary fuel heat input capacities: RB1: 315 MMBtu/hour; RB2: 405 MMBtu/hour. Both recovery boilers exhaust through a common 240 foot AGL stack.

1. New Source Performance Standards (NSPS), 40 CFR Part 60

Recovery Boilers #1 and #2 are not subject to NSPS subparts as follows:

<i>Subpart</i>	<i>Applies to...</i>	<i>Justification of Non-Applicability</i>
Subpart D	Fossil-Fuel-Fired Steam Generators for which Construction Commenced After August 17, 1971	Each unit's annual capacity factor firing oil is less than 10%.
Subpart Da	Electric Utility Steam Generating Units for which Construction Commenced After Sept. 18, 1978	These units are not Electric Utility Steam Generating Units, per the definition in Subpart Da.
Subpart Db	Industrial-Commercial-Institutional Steam Generating Units	These units were constructed prior to the applicability date and have not undergone "modifications" or "reconstructions" as defined in this subpart.
Subpart Dc	Small Industrial-Commercial-Institutional Steam Generating Units	These units have a capacity greater than 100 MMBtu/hour each.
Subpart BB	Standards of Performance for Kraft Pulp Mills	RB1 and RB2 were constructed prior to this Subpart's applicability date of Sept.24, 1976.

2. National Emissions Standards for Hazardous Air Pollutants: 40 CFR Part 63

Subpart MM

RB1 and RB2 are subject to the requirements for existing kraft recovery boilers found in 40 CFR Part 63, Subpart MM – *National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills* and the applicable provisions contained in 40 CFR Part 63, Subpart A, *General Provisions*. Subpart MM limits PM emissions and requires operation of a COMS in accordance with applicable data collection and calculation methods specified in this subpart.

Subpart DDDDD

RB1 and RB2 are not subject to 40 CFR Part 63, Subpart DDDDD *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters* (Boiler MACT) because units covered by 40 CFR Part 63 Subpart MM are not subject to the Boiler MACT standards. [40 CFR Part 63, §63.7491(f)]

3. Reasonably Available Control Technology (RACT)

VOC RACT

06-096 CMR 134, exempts VOCs emitted from the incomplete combustion of any material. [06-096 CMR 134, Section 1(C)(4)]

NO_x RACT

Requirements of 06-096 CMR 138 (NO_x-RACT) for RB1 and RB2 include emission limits of 150 ppm @ 8% O₂ for RB1 and 206 ppm @ 8% O₂ for RB2, for which compliance is demonstrated on a 24-hour daily block arithmetic average basis through the use of a CEMS that satisfies the requirements of 06-096 CMR 117 on the breaching of each recovery boiler before the common stack. [06-096 CMR 138 (3)(I)]

4. Control Equipment

Flue gas particulate emissions from RB1 and RB2 are controlled by the operation of an electrostatic precipitator (ESP). The ESP is a rigid frame, dry bottom design precipitator powered by transformer rectifier (TR) sets. The ESP has the design capacity to control emissions from both recovery boilers RB1 and RB2. Compliance with emission limits has been demonstrated operating while two chambers of the ESP are down and while one side of the ESP is down.

5. Emission Limits and Streamlining

RB1 and RB2: Streamlining Summary

Pollutant	Applicable Emission Standard(s)	Origin and Authority	Emission Limits
PM	0.044 gr/dscf @ 8% O ₂	40 CFR Part 63, Subpart MM, §63.862(a)(i)(A)	PM: 0.035 gr/dscf @ 8% O ₂ , 1-hour basis
	0.035 gr/dscf @ 8% O ₂	A-203-77-4-A (April 22, 2008) and A-203-77-14-A (March 12, 2012); BACT	
	4 lb/ADT pulp	06-096 CMR 105	
	133.3 lb/hr (combined emissions from RB1 and RB2)	A-203-70-A-I (January 12, 2005), BPT	PM and PM ₁₀ : 133.3 lb/hr, 1-hour basis (combined emissions from RB1 and RB2)
PM ₁₀	133.3 lb/hr (combined emissions from RB1 and RB2)	A-203-70-A-I (January 12, 2005), BPT	
SO ₂	0.5% fuel oil sulfur content	A-203-70-A-I (January 12, 2005), BPT	0.5% fuel sulfur content
	180 ppmv @ 8% O ₂	A-203-70-A-I (January 12, 2005), BPT	RB1: 120 ppmdv, @ 8% O ₂ at black liquor firing rate of 50% or higher; 140 ppmv @ 8% O ₂ at a black liquor firing rate of less than 50% RB2: 150 ppm@8% O ₂ at black liquor firing
	RB1: 120 ppmdv, @ 8% O ₂ at black liquor firing rate of 50% or higher; 140 ppmv @ 8% O ₂ at a black liquor firing rate of less than 50%	A-203-77-4-A (April 22, 2008) and A-203-77-14-A (March 12, 2012); BACT	
	RB2: 150 ppmdv, 30-day rolling average, as of 1/1/2013	A-203-77-11-M (November 2, 2010), BART	
	806.6 lb/hr on a 3-hour block average	A-203-70-A-I (January 12, 2005), BPT	
NO _x	RB2: 206 ppmv (dry), 24-hour block average basis	06-096 CMR 138 (3)(C)	RB1: 150 ppmdv, @ 8% O ₂ or 12% CO ₂
	RB1: 150 ppmdv, corrected to 8% O ₂ or 12% CO ₂	A-203-77-4-A (April 22, 2008) and A-203-77-14-A (March 12, 2012); BACT	RB2: 206 ppmv @ 8% O ₂ (dry), 24-hour block avg. basis
	213.3 lb/hr	A-203-70-A-I (January 12, 2005), BPT	213.3 lb/hr, 1-hour basis
CO	266.6 lb/hr (combined emissions from RB1 and RB2)	A-203-70-A-I (January 12, 2005), BPT	266.6 lb/hr, 1-hour basis (combined emissions from RB1 and RB2)
VOC	22.3 lb/hr (combined emissions from RB1 and RB2)	A-203-70-A-I (January 12, 2005), BPT	22.3 lb/hr, 1-hour basis (combined emissions from RB1 and RB2)
TRS	5 ppmdv @ 8% O ₂ (measured as H ₂ S), 12-hour block average basis	06-096 CMR 124 and A-203-77-4-A (April 22, 2008) and A-203-77-14-A (March 12, 2012); BACT	5 ppmdv @ 8% O ₂ (measured as H ₂ S), 12-hour block average basis

Visible emissions from the recovery boilers' common stack shall not exceed 30% opacity recorded as six-minute block averages, except for no more than three six-minute block averages in a three-hour period. [06-096 CMR 101 (2)(B)(5)]

Verso Androscoggin shall implement corrective action if monitoring shows an average of 10 consecutive six-minute averages greater than 20% opacity; and opacity must not be greater than 35% for 6% or more of the operating time in any operating quarter. [40 CFR Part 63, Subpart MM §63.864(k)]

6. Emission Limit Compliance Methods

Compliance with the emission limits associated with RB1 and RB2 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

<u>Pollutant</u>	<u>Applicable Emission Limit</u>	<u>Compliance Method</u>	<u>Frequency</u>
PM	gr/dscf and lb/hr limits (combined emissions from RB1 and RB2)	40 CFR Part 60, Appendix A, Method 5	Once every five calendar years
PM ₁₀	lb/hr limit (combined emissions from RB1 and RB2)	40 CFR Part 60, Appendix A, Method 5	As requested
SO ₂	ppmdv limits (individual units only)	SO ₂ CEMS	Continuously
	lb/hr limit (combined stack only)	SO ₂ CEMS on the combined stack	Continuously
NO _x	ppmdv limits	NO _x CEMS	Continuously
	lb/hr limits	Emissions Testing according to Applicable Method of 40 CFR Part 60, Appendix A	As requested
CO	lb/hr limits		
VOC	lb/hr limits	Emissions Testing according to Applicable Method of 40 CFR Part 60, Appendix A	Continuously
Visible Emissions	Opacity limit	COMS monitoring emissions from the common stack	
TRS	ppmdv limit	TRS CEMS	

7. Periodic Monitoring

Verso Androscoggin shall monitor and record parameters for RB1 and RB2 and the associated air pollution control equipment as indicated in the following table whenever the equipment is operating.

<u>Parameter</u>	<u>Frequency</u>
Fuel Oil Firing Rate	Continuously whenever this fuel is fired
Natural Gas Firing Rate	
Fuel Oil Sulfur Content	Whenever fuel is purchased or delivered

<u>Parameter</u>	<u>Frequency</u>
Black Liquor Firing Rate	Continuously
Black Liquor Solids	Continuously when this fuel is fired

Verso Androscoggin shall comply with the ongoing compliance provisions of 40 CFR §63.864 (k).

8. Parameter Monitors

There are no parameter monitors required for RB1 and RB2.

9. CEMS and COMS

For RB1 and RB2, the table below lists the required continuous emission monitoring systems (CEMS) and the continuous opacity monitoring system (COMS).

<u>Pollutant and Continuous Monitor</u>	<u>Location</u>	<u>Unit of Measurement</u>	<u>Origin and Authority</u>
SO ₂	on the individual boiler ducts	ppm	06-096 CMR 117
TRS		ppm	06-096 CMR 117 and
O ₂		percent	06-096 CMR 124
NO _x		ppm	06-096 CMR 138
Visible Emissions	Combined stack	percent opacity	40 CFR Part 63, Subpart MM, §63.864(d)
SO ₂		lb/hr	06-096 CMR 117

D. Smelt Dissolving Tanks #1 and #2

Smelt Dissolving Tank #1 (SDT#1) was installed in 1965 and has a design capacity of 2.50 MMlb dry BLS per day. Since 1983, a dual nozzle, wet scrubber has controlled emissions from SDT#1, which then exit to the atmosphere through a 168-ft. stack.

Smelt Dissolving Tank #2 (SDT#2) was installed in 1975 with a design capacity of 3.44 MMlb dry BLS per day. Since 1976, SDT#2 has been equipped with a dual nozzle, wet scrubber to control emissions, which then exit to the atmosphere through a 170-ft. stack.

1. New Source Performance Standards (NSPS), 40 CFR Part 60

Both smelt dissolving tanks were installed prior to the applicability date of 40 CFR Part 60, Subpart BB, *Standards of Performance for Kraft Pulp Mills*, and are thus not subject to requirements of this Subpart.

2. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

SDT#1 and SDT#2 are subject to the requirements of *NESHAPs for Chemical Recovery Sources at Pulp Mills*, 40 CFR Part 63, Subpart MM and the general provisions of Subpart A, as applicable. Verso Androscoggin has established a PM lb/ton BLS limit for each Smelt Dissolving Tank pursuant to 40 CFR §63.862(a)(1)(ii), as documented in the facility's 40 CFR Part 63, Subpart MM Notice of Compliance Status report.

The proposed limit for SDT#1 was 0.31 lb/ton BLS, greater than the referenced value given in Subpart MM for smelt dissolving tanks; and the proposed limit for SDT#2 was 0.13 lb/ton BLS, less than the referenced value in Subpart MM. Because the smelt tanks are not subject to 40 CFR Part 60, Subpart BB, flexibility for SDT#1 was allowed with an emission limit of 0.31 lb/ton BLS. [40 CFR Part 63, Subpart MM, §63.862(a)(i)(B) and 40 CFR §63.862(a)(1)(ii)]

3. VOC Reasonably Available Control Technology (VOC RACT)

VOC RACT for the smelt tanks was determined to be the control of emissions with the wet scrubber systems meeting the requirements of 06-096 CMR 124, *Total Reduced Sulfur Control from Kraft Pulp Mills*, for the control of TRS emissions.

4. Control Equipment

Verso Androscoggin operates a wet scrubber on each smelt dissolving tank to control emissions of PM, PM₁₀, SO₂, and TRS. Verso Androscoggin shall monitor and record the scrubber fan amps and the scrubber media flow rate for each scrubber on the smelt dissolving tanks. This alternative monitoring fulfills the continuous parameter monitoring system (CPMS) requirements of 40 CFR Part 63, Subpart MM, §63.864, *Monitoring Requirements*.

5. Emission Limits and Streamlining

Smelt Dissolving Tanks #1 and #2: Streamlining Summary

<u>Pollutant</u>	<u>Applicable Emission Standards</u>	<u>Origin and Authority</u>	<u>Emission Limits</u>
PM*	0.5 lb/ADT pulp, 2-hr sampling period (from each smelt tank)	06-096 CMR 105 (2)	SDT#1: 0.31 lb/ton BLS SDT#2: 0.13 lb/ton BLS
	0.20 lb/ton BLS fired	40 CFR Part 63, Subpart MM, §63.862(a)(i)(B)	
	SDT#1: 0.31 lb/ton BLS SDT#2: 0.13 lb/ton BLS	Established pursuant to 40 CFR §63.862(a)(1)(ii)	

Pollutant	Applicable Emission Standards	Origin and Authority	Emission Limits
PM*	SDT#1: 13.7 lb/hr SDT#2: 11.7 lb/hr	A-203-70-A-I (January 12, 2005), BPT	SDT#1: 13.7 lb/hour SDT#2: 11.7 lb/hour
PM ₁₀ *	SDT#1: 13.7 lb/hr SDT#2: 11.2 lb/hr		SDT#1: 13.7 lb/hour SDT#2: 11.2 lb/hour
SO ₂	SDT#1: 2.7 lb/hr SDT#2: 3.9 lb/hr		SDT#1: 2.7 lb/hour SDT#2: 3.9 lb/hour
Visible Emissions	20% opacity on a 6-minute block average basis, except for no more than one 6-minute block in any 1-hour period	06-069 CMR 101 (2)(B)(3)(d)	20% opacity on a 6-minute block average basis, except for no more than one 6-minute block in any 1-hour period
TRS	0.033 lb/ton BLS (as H ₂ S) from each SDT	06-096 CMR 124 (3)(J)	0.033 lb/ton BLS (as H ₂ S) from each SDT, 1-hour basis

* Lb/hour emission limits for SDT#1 and SDT#2 are based on the values used in the most recently submitted particulate modeling, documented in air emission license A-203-71-E-R (September 3, 1996). These limits for SDT#1 are greater than the corresponding values for SDT#2, even though SDT#2 has a greater process capacity than SDT#1.

6. Emission Limit Compliance Methods

Compliance with the emission limits associated with SDT#1 and SDT#2 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

Pollutant	Applicable Emission Limit	Compliance Method	Frequency
PM	lb/ton BLS fired and lb/hour limits	Emissions testing per applicable method of 40 CFR Part 60, Appendix A	Once every five years
PM ₁₀	lb/hour limits		As requested
SO ₂	lb/hour limits		As requested
Visible Emissions	opacity limit	Emissions testing per 40 CFR Part 60, Method 9	As requested
TRS	lb/ton BLS (as H ₂ S) limit	Emissions testing per applicable method of 40 CFR Part 60, Appendix A	Once every two calendar years

7. Periodic Monitoring [A-203-70-A-I (January 12, 2005)]

Periodic monitoring for the smelt tanks' scrubbers shall consist of recordkeeping of scrubber bypass incidents that exceed five minutes. These shall be included within the quarterly report with reasons for each occurrence. An event shall be considered a scrubber bypass event when gases are vented

directly to the atmosphere from either SDT#1 or SDT#2 without first being treated in the associated scrubber for TRS removal by bypassing the scrubber itself. An instantaneous low scrubber flow or scrubber fan amps event which does not result in a three-hour deviation under 40 CFR Part 60, Subpart MM monitoring shall not be included as a scrubber bypass event.

8. Parameter Monitors

Verso Androscoggin shall monitor and record the following parameters for the wet scrubbers on Smelt Dissolving Tanks #1 and #2 whenever the equipment is operating: [A-203-70-A-I (January 12, 2005)]

<u>Parameter</u>	<u>Frequency</u>
Scrubber media flow rate	Continuous, rolling three-hour block average
Scrubber fan amperage	

Data shall be verified pursuant to 40 CFR §63.8(c)(3). The parameter ranges shall be determined or modified, if necessary, according to the procedures as specified in 40 CFR §63.864(j).

E. Lime Kilns A and B

The Lime Kilns A and B were installed in 1965 and 1975, respectively, with identical design parameters. Each kiln's design production capacity is 248 tons CaO per day. Each kiln may fire #6 fuel oil, distillate fuel, on- or off-specification used oil, propane as pilot fuel, and/or natural gas. Fuel oil fired in either Lime Kiln is limited to 1.8% sulfur by weight. The Lime Kilns also incinerate non-condensable gases (NCGs) generated by the pulping process, subjecting the NCGs to a temperature of 1200 °F or greater for at least 0.5 seconds, per 06-096 CMR 124. Both Lime Kiln A and Lime Kiln B serve as the primary and backup NCG and TRS control devices, as required by 06-096 CMR 124. An additional operational scenario is considered a Tertiary Control Method for the destruction of LVHC gases.

<u>Equipment</u>	<u>Production Rate</u>	<u>Pollution Control Equipment</u>	<u>Stack #</u>
Lime Kiln A	248 tons/day of CaO	Wet Scrubber	LKA
Lime Kiln B	248 tons/day of CaO	Wet Scrubber	LKB

Though originally designed at a maximum heat input rate of 72 MMBtu/hour to provide energy for the lime regeneration process, those burners were replaced with new burners having design heat input capacities of 80 MMBtu/hour in each lime kiln, as a part of the modification to include natural gas as a licensed fuel. [A-203-77-13-A, January 19, 2012]

Post-control emissions from Lime Kilns A and B are vented to the atmosphere through separate 100 foot stacks.

Control Equipment

Particulate emissions from each Lime Kiln A and B are controlled by a wet scrubber on each kiln. The scrubbers may be operated with water, a weak wash solution, or a caustic solution as the scrubbing media.

When lime is present in a lime kiln, lime mud is an effective media to scrub SO₂ emissions generated from the incineration of TRS gases in the kiln. For times when no lime mud is present in a kiln in which NCGs are incinerated, the NCG gas line is equipped with an NCG scrubber to remove sulfur gases prior to entry into the kiln. The scrubber uses a white liquor shower and is only required to operate when NCGs are being incinerated in the kiln without the presence of lime. Since scrubber emissions go directly into the lime kilns, emissions specifically from the NCG Scrubber are accounted for in lime kiln emissions.

The LVHC NCG line scrubber on the main LVHC gas collection line is required to be in operation under no-load conditions. The A Chip Bin NCG gas line is also equipped with a NCG scrubber; the A Chip Bin gases are in a dilute state and contribute negligible quantities of TRS compared to the concentrated LVHC gas line. The A Chip Bin TRS scrubber is to be in operation during no-load conditions. *No-load condition* means the lime kiln is in operation when NCGs are being combusted in the kiln in the absence of lime, and the lime mud feed to the kilns has stopped without interruption for a period greater than one hour. [A-203-77-13-A (January 19, 2012)] This is also referred to as the Lime Kilns operating in tertiary mode.

When a lime kiln is in no-load operation, the following shall apply.

Note: The NCG scrubbers typically run under normal operations also, and the conditions below are specific only to no-load conditions, not to the scrubber operation.

- 1) SO₂ emissions from that kiln firing NCGs shall not exceed 24.0 lb/hour;
- 2) Verso Androscoggin shall maintain a record of the date and length of time, in minutes, when NCGs are combusted within Lime Kilns A and B without the presence of lime;
- 3) Verso Androscoggin shall continuously monitor and record either the pH or the conductivity of lime kiln scrubbers;
- 4) The following monitoring and recordkeeping shall be performed when Lime Kilns A and B are operating in tertiary mode. Each identified alternate method of monitoring shall be employed only in the event the primary method becomes non-operational.

<u>Parameter</u>	<u>Primary Monitoring Method</u>	<u>Alternate Monitoring Method</u>
Temperature	Monitor Lime Kiln hood temperature	Monitor Lime Kiln discharge temperature
pH or Conductivity of the lime kiln wet scrubber	a meter to continuously monitor and record the pH or conductivity of the scrubbing solution for each Lime Kiln wet scrubber	a grab sample analyzed for pH or conductivity of the Lime Kiln wet scrubber recorded in a log once when both the pH and the conductivity meter become non-operational and every 30 minutes thereafter

[06-096 CMR 140, BPT]

1. New Source Performance Standards (NSPS)

Both lime kilns were installed prior to the applicability date of 40 CFR Part 60, Subpart BB, *Standards of Performance for Kraft Pulp Mills*, and are thus not subject to NSPS requirements of this Subpart.

2. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

Lime Kiln A and B are subject to the requirements of *NESHAPs for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills*, 40 CFR Part 63, Subpart MM. Subpart MM sets forth PM emission limits, testing requirements, monitoring requirements, and recordkeeping/reporting requirements for chemical recovery combustion sources.

3. Reasonably Available Control Technology (RACT)

VOC RACT

The control of VOC emissions by maintaining adequate combustion conditions within the lime kiln to meet a TRS emission limit of 20 ppmv @ 10% O₂ on a dry basis, as required by 06-096 CMR 124, has been determined to meet VOC RACT.

NO_x RACT

Amendment A-203-71-R-A (October 4, 1995) established NO_x RACT requirements for the lime kilns of a NO_x limit of 120 ppmv (wet) @ 10% O₂, per 06-096 CMR 138 (3)(E)(2), with compliance to be demonstrated through NO_x stack testing. Verso shall conduct NO_x stack testing once every five calendar years. If operating parameters, federal requirements, or other information indicates the source may be operating out of compliance, additional testing may be required upon request of the Department.

4. Emission Limits and Streamlining

Lime Kilns A and B: Streamlining Summary

<u>Pollutant</u>	<u>Applicable Emission Standards</u>	<u>Origin and Authority</u>	<u>Emission Limits</u>
PM	1.0 lb/ADT pulp, from each kiln, 2-hour sampling period	06-096 CMR 105 (2)	0.05 gr/dscf @ 10% O ₂
	0.13 gr/dscf @ 10% O ₂	LK A: A-203-70-A-I (Jan. 12, 2005), BPT LK B: A-203-77-12-A (Sept. 16, 2011), BACT	
	0.064 gr/dscf @ 10% O ₂	40 CFR Part 63, Subpart MM, §63.862(a)(1)(i)(C)	
	0.05 gr/dscf @ 10% O ₂	A-203-77-17-A (October 31, 2012), BACT	
	LK A: 25.5 lb/hr LK B: 25.0 lb/hr	A-203-70-A-I (January 12, 2005), BPT and A-203-77-13-A (January 19, 2012), BACT	LK A: 25.5 lb/hr LK B: 25.0 lb/hr
PM ₁₀	LK A: 25.5 lb/hr LK B: 25.0 lb/hr		LK A: 25.5 lb/hr LK B: 25.0 lb/hr
PM _{2.5}	LK A: 25.5 lb/hr LK B: 25.0 lb/hr		LK A: 25.5 lb/hr LK B: 25.0 lb/hr
SO ₂	1.8% fuel sulfur content by weight	A-203-70-A-I (January 12, 2005), BPT	1.8% fuel sulfur content by weight
	1.92 lb/MMBtu, 24-hour average	06-096 CMR 106 (4)	6.7 lb/hr from each kiln, (loaded conditions)
	6.7 lb/hr (when loaded) 24 lb/hr (no-load condition)	A-203-77-13-A (January 19, 2012), BACT	24 lb/hr from each kiln, (no-load conditions)
NO _x	120 ppmv(wet) @ 10% O ₂ , 1-hour average	A-203-77-13-A (January 19, 2012), BACT	120 ppmv(wet) @ 10% O ₂ , 1-hour average
	33.3 lb/hr		33.3 lb/hr
CO	200 lb/hr from each lime kiln		200 lb/hr from each lime kiln
VOC	1.4 lb/hr from each lime kiln	A-203-77-13-A (January 19, 2012), BACT	1.4 lb/hr from each lime kiln
Visible Emissions	20% opacity on a 6-minute block average basis, except for no more than one 6-minute block average in any 1-hour period	06-096 CMR 101 (2(B)(3)(d))	20% opacity on a 6-minute block average basis, except for no more than one six-minute block average in any one-hour period
TRS	20 ppmv(dry) @ 10% O ₂ , measured as H ₂ S, 12-hour block average	A-203-77-13-A (January 19, 2012), BACT	20 ppmv @ 10% O ₂ , 12-hour block average

5. TRS Emission Limits Review

In accordance with NSR license A-203-77-12-A (September 16, 2011), condition (2); and NSR license A-203-77-13-A (January 19, 2012), conditions (1)(D) and (2)(D), Verso Androscoggin submitted monitoring data of TRS emissions from the lime kilns. The purpose was to inform the Department's finding as to whether a lower TRS emission limit is appropriate as BACT for the lime kilns firing natural gas.

The data shows a correlation between TRS emissions and operational variances associated with mill outages, fresh lime use, and lime kiln startup conditions. During lime kiln outages, fresh lime is purchased to maintain production (to make white liquor) while one lime kiln is down. Fresh lime use can result in elevated TRS emissions. As the fresh lime is assimilated into the process, the TRS emissions subsided back to normal (lower) emission rates.

The facility requires operational flexibility to maintain production during maintenance outages and other unavoidable lime kiln outages. These events related to mill outages and variability are short, discrete, and necessary to maintain production. The current TRS limit of 20 ppm @ 10% O₂ for each lime kiln, on a 12-hour block average basis, provides for this flexibility. The Department finds that the current TRS limit is appropriate and meets BACT criteria for Lime Kilns A and B.

6. Emission Limit Compliance Methods

Compliance with the emission limits associated with Lime Kilns A and B shall be demonstrated in accordance with the methods and frequencies for each unit as indicated in the table below or other methods or frequencies as approved by the Department.

Pollutant	Emission Limit	Compliance Method	Frequency
PM	gr/dscf and lb/hr limits	Emissions testing in accordance with the applicable method of 40 CFR Part 60, Appendix A	Once every five years*
PM ₁₀	lb/hr limits		As requested
PM _{2.5}	lb/hr limits		
SO ₂	lb/hr limits	Emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 6	As requested
NO _x	ppmv(wet) and lb/hr limits	Emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 7E	Once every five calendar years**
CO	lb/hr limits	Emissions testing in accordance with the applicable method in 40 CFR Part 60, Appendix A	As requested

<u>Pollutant</u>	<u>Emission Limit</u>	<u>Compliance Method</u>	<u>Frequency</u>
VOC	lb/hr limits	Emissions testing in accordance with the applicable method in 40 CFR Part 60, Appendix A	As requested

* In accordance with 38 M.R.S.A. §589, §§2, if visible emissions, operating parameters, federal requirements, or other information indicates the source may be operating out of compliance, additional testing may be required upon request of the Department.

** If operating parameters, federal requirements, or other information indicates the source may be operating out of compliance, additional testing may be required upon request of the Department.

<u>Pollutant</u>	<u>Emission Limit</u>	<u>Compliance Method</u>	<u>Frequency</u>
TRS	ppm limit	CEMS – monitoring TRS concentration on a dry basis and % O ₂ by volume on a dry basis of emissions	Calculate and record daily: 12-hour block average TRS @ 10% O ₂ and O ₂ concentrations for the two consecutive periods of each operating day, determined as the arithmetic mean of the appropriate 12 contiguous, one-hour averages from the CEMS

7. Periodic Monitoring

Periodic monitoring shall consist of records demonstrating fuel use and firing rates in Lime Kilns A and B and delivery receipts or other records from the fuel supplier indicating the percent sulfur by weight of fuel oil.

8. Parameter Monitors

Verso Androscoggin shall monitor and record parameters for Lime Kiln A and Lime Kiln B and their associated air pollution control equipment as indicated in the following table whenever the kilns are operating. Collected data shall be verified pursuant to 40 CFR §63.8(c)(3). The parameter ranges shall be determined, or modified as necessary, according to the procedures as specified in 40 CFR §63.864(j) and in accordance with 06-096 CMR 140.

<u>Parameter</u>	<u>Frequency</u>
Pressure Drop across the Scrubber	Monitor continuously; record three-hour rolling average (Continuously is considered one data point every 15-minute period.)
Scrubbing Liquid Flow Rate, venturi section	
Scrubbing Liquid Flow Rate, quench section	
Mist Eliminator Section Flow Rate	

NESHAP regulation 40 CFR Part 63, Subpart MM requires that for each lime kiln, a continuous parameter monitoring system (CPMS) be used to determine

and record the pressure drop across each lime kiln scrubber and the scrubbing liquid flow rate of each at least once every successive 15-minute period pursuant to 40 CFR §63.8(c). The monitoring devices used to satisfy the CPMS requirements shall meet the certification and accuracy requirements specified in 40 CFR Part 63, Subpart MM, §63.864(3)(10). [40 CFR Part 63, Subpart MM, §63.864(3)(10)]

9. CEMS and COMS

For Lime Kiln A and Lime Kiln B, the table below lists the required continuous emission monitoring systems (CEMS).

<u>Pollutant and Continuous Monitor</u>	<u>Unit of Measurement</u>	<u>Origin and Authority</u>
TRS	ppm	06-096 CMR 117 and 124
O ₂	ppm or %	

F. Lime Slakers and Causticizers

Each pulping production line A and B has an associated Reausticizing process which includes a lime kiln, a lime slaker, a set of causticizers, and a mud filter. The Lime Kilns were addressed in the previous section. The Lime Slakers each vent inside a building and are fugitive emission sources of VOC and methanol.

In the Lime Slakers, green liquor is reacted with lime (CaO) to form white liquor and lime mud (CaCO₃). The white liquor is used in the Kraft pulping process, and the lime mud is oxidized in the lime kilns to recover lime.

In addition, Reaust includes a single caustic recovery system that serves both the A and B process lines. The caustic recovery system consists of a number of process tanks, filtration units, lime silos, and other equipment used to clarify and separate solid material (dregs and grits) from green liquor, clarify white liquor for use in the digesters, and prepare lime mud for oxidation in the lime kilns. Of this equipment, the Lime Kilns, the Lime Slakers, and the Lime Silos (addressed in the *Bulk Handling Systems* part of this license) are the units required to be in the air emission license.

The A Slaker was installed in 1965 and has a capacity equivalent to 248 tons/day of CaO. The B Slaker was installed in 1975 and also has a capacity equivalent to 248 tons/day of CaO.

Verso Androscoggin shall maintain records of production for use in annual emission inventory reporting for the Lime Slakers.

G. Digester Chip Bins/Steaming

The Androscoggin Mill operates two parallel, Kraft chemical pulping process lines, Pulp Mill A and Pulp Mill B, each of which is equipped with a continuous digester system to produce pulp from wood chips. On both A and B lines, wood chips are fed to the respective digester systems from existing chip bins, designated A Chip Bin and B Chip Bin. A rotary feeder at the bottom of each chip bin conveys the chips to a pressurized steaming vessel that, in turn, feeds the corresponding digester.

Both A and B Chip Bins are equipped with systems that inject steam into the bins, making the process more energy efficient by steaming/heating the chips prior to the digesters. As a result, both bins meet the Subpart S definition of “chip steamer” [40 CFR Part 63, Subpart S, §63.441]. According to Subpart S, Chip Steamers are part of the “digester system” [also defined at 40 CFR Part 63, Subpart S, §63.441] and regulated by Subpart S. However, as defined in the Subpart, Chip Steamers are only considered to be part of the digester system when they *do not* use fresh steam [§63.443(a)]; thus, Chip Steamers using fresh steam or its equivalent are not subject to Subpart S requirements.

1. The A and B Chip Bins are exempt from the collection, treatment, and reporting requirements of 40 CFR Part 63, Subpart S provided Verso complies with the following:
 - a. Ensure fresh, non-process steam use on the chip bins;
 - b. Ensure fresh, non-process steam use on the low pressure feeder pocket purge;
 - c. Ensure wood chip level in the bin is high enough to condense/adsorb LVHC emissions.[40 CFR 63, Subpart S and A-203-70-M-A (November 19, 2012)]
2. The A Chip Bin is configured to use fresh steam, flash steam from the A Digester, and clean condensate flash steam. The B Chip Bin is configured to use only fresh steam and clean condensate flash steam. The Department has previously determined (NSR License A-203-77-9-A, March 30, 2010) that clean condensate flash steam is equivalent to fresh steam; therefore, the clean condensate flash steam used in both the A and B Chip Bins is included as fresh steam for applicability determination purposes.

The rotary chip feeders located on both A and B Chip Bins are equipped with steam purge systems to reduce the amount of residual chips left in the feeder pockets and the quantity of gas blowback into the chip bins from the steaming vessels. The chip feeders have vent pipes that typically route such gases back into the chip bin below the normal chips level in the bin. During certain operating conditions such as startup, shutdown, malfunction, chip delivery interruption, or when the chip level in the bin is too low, the vents from the chip feeders and the chip bins themselves will bypass directly to atmosphere

on the B Chip Bin and through the low volume, high concentration (LVHC) gas collection system to the atmosphere on the A Chip Bin.

Chip Bins are different from other digester system equipment within the LVHC system in that, occasionally, continuous digester system chip bins need to vent to the atmosphere as part of normal and routine operations. LVHC gases are vented from chip bins during startups and shutdowns. Chip feeder pocket purge gases and chip steaming gases are vented when the chip level in the chip bin is low, as indicated by the chip bin's exhaust gas temperature. Standard operating practices require chip bins to be emptied when the digester is shut down; otherwise, remaining wood chips swell and plug the bin, interrupting normal startup and shutdown procedures and potentially leading to other process problems and system vents. When chip flow to the digester is interrupted and the chip level in the chip bin drops below safe operating levels, chip bin gases must be diverted from the control device to the atmosphere (at sources where chip bin gases are collected for treatment).

When flash steam is used for pre-steaming in the A Chip Bin, emissions from the bin include non-condensable gases (NCGs) and are collected and controlled as part of the Mill's LVHC system, as required under 40 CFR Part 63, Subpart S. The A Chip Bin exhaust gases are normally collected and conveyed through a system of separators and scrubbers for removing particulate matter; a closed heat exchanger to lower the gas temperature and condense out any water, turpentine, or methanol in the gas stream; then through a white liquor scrubber and transport cooler, before being introduced into the flame zone in either of Verso's lime kilns.

Under certain conditions such as startup, shutdown, malfunction, periods of low chip level in the bin, or when dictated for safety reasons, exhaust gases from the chip bin exceed the capacity of the exhaust gas cooler, and the gases are vented to the atmosphere after the transport cooler; this is because it is unsafe to introduce gases in this state to a lime kiln. When A Chip Bin exhaust gases vent directly to the atmosphere, flash steam use is discontinued and replaced with fresh steam.

The A Chip Bin can also vent locally through a pressure relief device when steam pressure and temperature exceeds the capacity of the chip bin due to process variations and/or chip flow interruptions. Under Subpart S, during periods when steam used in the A Chip Bin is not fresh steam, venting is allowed during one percent of the operating time for each semi-annual reporting period [40 CFR Part 63, Subpart S, §63.443 (e)(1)]. As long as only fresh steam or its equivalent is in use in A Chip Bin when venting occurs, Subpart S does not apply, and the duration of the venting is not included in the one percent allowance.

As described above, B Chip Bin uses only fresh steam for pre-steaming the wood chips; therefore, 40 CFR Part 63, Subpart S does not require collection and control of the vent gases from B Chip Bin. However, during normal operations, the Androscoggin Mill does collect B Chip Bin exhaust gases in the HVLC gas collection system, which routes them to the Mill's regenerative thermal oxidizer (RTO) for destruction. During startup, shutdown, malfunction, periods of low chip level in the bin, or when dictated for safety reasons, exhaust gases from the B Chip Bin are vented directly to atmosphere. Unlike for the A Chip Bin, there is no requirement under Subpart S to collect or control B Chip Bin vent gases; therefore, under Subpart S there is no limitation on or requirement pertaining to the amount of time B Chip Bin vents directly to atmosphere.

3. Documentation of Compliance [A-203-70-M-A (November 19, 2012)]
 - a. To determine compliance with the Subpart S one percent venting allowance for the A Chip Bin, Verso Androscoggin will track the duration of A Chip Bin venting that occurs when flash steam is used in the A Chip Bin. (Venting that occurs when fresh steam or its equivalent is used does not need to be tracked.)
 - b. The Mill is not required to track venting from the B Chip Bin for determining compliance with Subpart S venting provisions, since that bin uses only fresh steam and is not subject to any of the Subpart S requirements.
4. 06-096 CMR 124 Applicability

As documented in the NSR license A-203-77-9-A (March 30, 2010), emissions from A and B Chip Bins are not subject to the LVHC collection system requirements under 06-096 CMR 124. This was based on the economic infeasibility of controlling low/empty chip bin vents as part of the LVHC system. During normal operation, the chips absorb steam and vent gases from the digester. In addition, during normal operation, a condenser is used to remove steam and condensable gases from the chip bin exhaust stream. During startup, shutdown, and malfunction events when the level in the chip bin is lowered, the chip bin exhaust must bypass the condenser because the total volume of exhaust gases and steam load exceeds the capacity of the condenser. The BACT economic analysis as part of that NSR license showed that control of low/empty chip bins is not economically feasible, and that a condenser sized for low/empty chip bin vents would not be cost effective.

In 06-096 CMR 124, LVHC vent time is limited to one (1) percent of operating time. There are no startup, shutdown, malfunction (SSM) exemptions in 06-096 CMR 124; thus, the Mill sought a finding by the

Department that “low/empty” chip bins are not required to be controlled and, therefore, “low/empty” chip bin vents are not considered for purposes of determining compliance with the 1% venting allowance for LVHC systems in 06-096 CMR 124.

Chapter 06-096 CMR 124 requires LVHC collection systems to have both a primary and a backup control strategy. A Chip Bin vent gases are collected and controlled in the lime kilns with a primary, a secondary, and a tertiary strategy. Furthermore, any “full” chip bin vents associated with the control device (lime kilns) are reported as a “Main Header” vent of the entire LVHC system.

The Department found that emissions from the A and B Chip Bins are not subject to the LVHC collection system requirements under 06-096 CMR 124.

H. Pulping Process Components

The federal regulation 40 CFR Part 63, Subpart S, *National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry*, contains emissions standards; test methods and procedures; and monitoring, recordkeeping, and reporting requirements for emissions of hazardous air pollutants (HAP) from a kraft process such as that utilized by Verso Androscoggin’s A and B Pulp Lines. Affected sources include HAP emission points in the pulping and bleaching systems at the facility. Emissions from specified units are required to be collected and treated, either as part of a system collecting high volume, low concentration (HVLC) gases or a system collecting low volume, high concentration (LVHC) gases. At Verso Androscoggin, the collected HVLC gases are conveyed to a dedicated unit, the Regenerative Thermal Oxidizer (RTO), for destruction; and the collected LVHC gases are conveyed to a lime kiln for destruction.

Verso Androscoggin shall comply with all applicable standards of 40 CFR Part 63, Subpart S for enclosures and closed-vent systems. [40 CFR Part 63, Subpart S, §63.450]

1. HVLC/RTO Source Group: HVLC System

HVLC System

In accordance with 40 CFR Part 63, Subpart S and 06-096 CMR 124, *Total Reduced Sulfur Control from Kraft Pulp Mills*, Verso Androscoggin collects and controls high volume, low concentration gas streams containing non-condensable gases (NCGs), including both HAP and TRS compounds, as part of their HVLC system. Federal regulation 40 CFR §63.443(c) requires HVLC equipment system emission points to be enclosed, vented to a closed vent system, and then routed to a control device. Verso Androscoggin’s MACT HVLC system collects vent gases from the following sources:

- #1 and #2 Brown Stock Washers;
- #1 and #2 Filtrate Tanks (also called Seal Tanks);
- the Oxygen Delignification System, which includes the MC1 pump (the O₂ System MC1 pump standpipe), O₂ Tower, O₂ Washer, O₂ Filtrate Tank, and a vent off of the MC2 pipe after the O₂ Reactor.

Emissions from these sources are collected with a Pulp Mill Fan and are joined in a main header, then passed through a condenser to remove water vapor.

Note: The O₂ Reactor and Separator including MC2 pump are part of the Oxygen Delignification System; however, these are not a named source in the HVLC collection system because the O₂ Reactor is entirely enclosed and has no vents. However, one vent off of the MC2 pipe after the Reactor is collected.

The following sources, although not required to be collected under Subpart S, are also collected in the HVLC system to meet the requirements of 06-096 CMR 124:

- B Chip Bin (when full) and
- Black Liquor Storage Tanks - including the No. 1 and No. 2 Recovery Boiler Mix Tanks, West Precipitator Mix Tank, East Precipitator Mix Tank, East Economizer Mix Tank, 52% Black Liquor Tank, 63% Black Liquor Tank, No. 1 Weak Black Liquor Tank, and No. 2 Weak Black Liquor Tank.

Vents from the Strong Black Liquor Tanks are routed to the Power House Main Header.

Sources voluntarily collected and treated in the HVLC system are

- the Parshall flume, and
- the A Pulp Mill No. 1 Secondary Knotter (knotter/screen).

Because the B Chip Bin uses only fresh steam for pre-steaming the wood chips, 40 CFR Part 63, Subpart S does not require collection and control of the vent gases from the B Chip Bin. However, during normal operations, the Androscoggin Mill collects the B Chip Bin exhaust gases into the HVLC gas collection system to meet the requirements of 06-096 CMR 124. During startup, shutdown, malfunction, periods of low chip level in the bin, or when dictated for safety purposes, exhaust gases from the B Chip Bin are vented directly to atmosphere. There is no requirement under Subpart S to collect or control the B Chip Bin vent gases; therefore, under Subpart S, there is no limitation on the amount of time the exhaust gases from the B Chip Bin can vent directly to atmosphere. In addition, the B Chip Bin is not subject to the LVHC collection system requirements of 06-096 CMR 124. [A-203-77-16-M (September 27, 2012)]

Emissions from the following black liquor storage tanks were determined not to require control, per BPT analysis and emission exemptions: No. 3 and No. 4 Weak Black Liquor Tanks, Strong Black Liquor Tank, and 68% Black Liquor Tank.

General HVLC System Requirements

Components of the HVLC Collection System subject to 40 CFR Part 63, Subpart S, §63.443 shall meet the standards for enclosure and closed-vent systems specified in 40 CFR §63.450. [40 CFR Part 63, Subpart S]

The HVLC system shall maintain a 96% collection and control uptime based on quarterly brownstock washer system operating time on a total mass weighted basis for each line. [06-096 CMR 124 (3)(E)]

Condensates from the HVLC System shall be treated in accordance with 40 CFR Part 63, Subpart S.

Verso Androscoggin shall meet the vent notification requirements of 06-096 CMR 124 (5)(B)(2) and quarterly reporting requirements of 06-096 CMR (5)(C)(8) as specified in the Conditions of this license.

HVLC Control Device: RTO

Gases collected as part of the HVLC system are conveyed to and combusted in the Regenerative Thermal Oxidizer (RTO). The RTO is comprised of three individual beds packed with ceramic material and is designed to thermally destroy VOC and TRS compounds. The RTO, a Smith Regenerative Thermal Oxidizer, was installed as a pollution control device in the fall of 1995. Because combustion of TRS results in the creation of SO₂, the RTO is equipped with a spray scrubber to reduce SO₂ and acid gas emissions. The scrubber uses sodium hydroxide as the scrubbing medium to remove SO₂ formed from the oxidization of TRS compounds. Emissions exiting the RTO scrubber are vented to the atmosphere through a 30-inch diameter stack (at port elevation), which is 150 feet above ground elevation.

The fuels and firing capacities for the RTO are as specified in the following table [A-203-77-13-A (January 19, 2012)]:

Equipment	Max. Capacity (MMBtu/hr)	Associated Single-Fuel Firing Rate	Fuel Type, % sulfur	Stack #
Regenerative Thermal Oxidizer (RTO)	8	88 gal/hr	Propane, negligible	RTO
		57 gal/hr	Distillate Fuel, 0.3%	
		7,843 scf/hr	Natural Gas, negligible	

VOC RACT for the Brown Stock Washer System A is the control of VOC emissions by the RTO System, which meets the TRS emissions control requirements of 06-096 CMR 124.

a. New Source Performance Standards (NSPS)

Verso Androscoggin operates one Brown Stock Washer System A, which was installed in 1965, prior to the NSPS applicability date for 40 CFR Part 60, Subpart BB. There are no NSPS requirements applicable to the units making up the HVLC Source Group.

b. Control Equipment

For those units listed as part of the HVLC Source Group, the RTO is the control device for TRS, VOC, and HAP emissions. Resultant SO₂ is controlled by a wet scrubber on the RTO.

Verso's HVLC system must meet one of the four compliance options specified in Subpart S at 40 CFR §63.443(d) for the control device used to reduce HAP emissions from the Kraft pulping process.

The requirement of 06-096 CMR 124, 4(B) is a minimum temperature of 1200 °F for at least 0.5 seconds for TRS destruction. When Chapter 124-only (not Subpart S) applicable units are running, the RTO will meet a minimum temperature of 1200 °F.

c. Emission Limits and Streamlining

For the RTO, a listing of applicable emission standards, the origin and authority of the standards, and the applicable emission limits can be found in the table below. Unless otherwise specified, the averaging times for the emission limits in this table are based on the specified averaging time of the applicable test method for each pollutant.

Pollutant	Origin and Authority	Emission Limits
PM	A-203-71-M-A (July 31, 1995) and A-203-77-13-A (January 19, 2012); BACT	1.0 lb/hr
PM ₁₀		1.0 lb/hr
PM _{2.5}		1.0 lb/hr
SO ₂	A-203-71-M-A (July 31, 1995) and A-203-77-13-A (January 19, 2012); BACT	0.3% by weight, auxiliary fuel oil sulfur content
		2.02 lb/hr
NO _x	A-203-71-AC-A (October 15, 1996) and A-203-77-13-A (January 19, 2012); BACT	1.71 lb/hr
CO	A-203-71-M-A (July 31, 1995) and A-203-77-13-A (January 19, 2012); BACT	1.2 lb/hr
VOC		3.0 lb/hr
TRS		0.2 lb/hr

* documented for fuel oil, since propane and natural gas have negligibly low sulfur contents

d. Emission Limit Compliance Methods

Compliance with the emission limits associated with the RTO shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

Pollutant	Compliance Method	Frequency
PM	Emissions testing in accordance with the applicable Method of 40 CFR Part 60, Appendix A	As requested
PM ₁₀		
PM _{2.5}		
SO ₂		
NO _x	Emissions testing in accordance with the applicable Method of 40 CFR Part 60, Appendix A	As requested
CO		
VOC		
TRS		

- e. The Mill shall maintain a written preventative maintenance program for each respective TRS gas collection system in accordance with 06-096 CMR 124 (3)(G).

f. Compliance Assurance Monitoring

For the RTO, CAM is applicable to SO₂ emissions. The CAM monitoring requirements for the wet scrubber on the RTO are included in the monitoring sections below.

g. Periodic Monitoring

Periodic monitoring for the RTO shall consist of recordkeeping which demonstrates the following:

- (1) Fuel use, calculated monthly from purchase records and use on the paper machines;
- (2) Percent sulfur by weight of fuel oil fired in the RTO.

Periodic monitoring for the HVLC Source Group shall consist of recordkeeping which demonstrates the following:

- (1) Monthly visual leak inspections of the HVLC collection system, in accordance with dates and methods of 40 CFR Part 63, Subpart S and as approved in an alternative monitoring plan;
- (2) Annual negative pressure demonstrations at enclosure openings of the HVLC collections system, in accordance with 40 CFR Part 63, Subpart S;
- (3) Annual positive pressure demonstrations at sections of the HVLC collection system under positive pressure, in accordance with 40 CFR Part 63, Subpart S.

h. Parameter Monitors

The following RTO operating parameters shall be monitored as specified:
[A-203-71-M-A (July 31, 1995) and A-203-70-A-I (January 12, 2005),
BACT]

CAM?	Parameter	Frequency	
		Monitor	Record
Yes	Scrubbing media pH, recirc. flow	Continuously	one data point every 15 minutes
Yes	RTO Combustion Temperature	Continuously	one data point every 15 minutes

In accordance with 40 CFR §63.443(b), the Mill conducts continuous monitoring of temperature as an indicator of compliance with the total HAP reduction standard. The RTO scrubber pH and recirculation flow values are based on the minimum values recorded during testing for SO₂ to establish an Assured Compliance Plan value. Additional performance tests may be used to establish or re-establish 40 CFR §63.443 compliance options and the values for the site-specific parameters. [40 CFR §63.453(n)(2)]

2. Kraft Pulping Condensates

The federal regulation 40 CFR Part 63, Subpart S requires the collection of pulping process condensates and the reduction of total HAP emissions from the mill. Verso utilizes the “hard-pipe” option described in 40 CFR §63.446, in which pulping process condensates are collected and conveyed in a closed collection system, and discharged below the liquid surface of a biological treatment system. The Condensate Collection Tank (CCT) and associated piping were installed by April 15, 2002, to meet these requirements of 40 CFR Part 63, Subpart S, for the Kraft Pulping Condensates System.

3. LVHC Source Group

In accordance with applicable requirements of 40 CFR Part 63, Subpart S and 06-096 CMR 124, Verso Androscoggin collects and controls low volume, high concentration (LVHC) gas streams containing non-condensable gases (NCGs) from a variety of emission units in several of the process areas of the mill. Certain points are NCG collection locations, and others involve safety relief points for use as needed during startup, shutdown, normal interlock pressure relief/balance, or malfunction. NCG collection is directly associated with the flash tanks or separation tanks on both the digesters and evaporators. NCGs are directed for control to the lime kilns, and foul condensates are directed to the WWTP through

the hardpipe. The A Digester blow tanks are collected within the LVHC system at the Androscoggin Mill.

The LVHC Source Group consists of the following emission units:

A Digester	B Evaporators	Condensate Collection Tank
B Digester	#1 Blow Tank	
A Evaporators	#2 Blow Tank	

Note: Use of flash steam results in the A Chip Bin becoming a "named" LVHC source. Subpart S requires the collection of the chip bin gases at all times when flash steam is being used, except for periods of startup, shutdown, and malfunction of the LVHC source control device.

LVHC gases are routed to the Lime Kilns for destruction. Each Lime Kiln serves as the back-up incineration device for the other. In such circumstances when neither Lime Kiln is processing lime, Verso has established an alternate operating scenario for a Tertiary Control Method for the destruction of LVHC gases in one or both Lime Kilns. [A-203-70-A-I (January 12, 2005)]

a. NSPS

The A and B Digesters are Kamyr continuous digesters installed in 1965 and 1975, respectively, prior to the applicability date for 40 CFR Part 60, Subpart BB.

The A and B Evaporator Systems, with capacities of 2.50 and 3.44 MMlb dry BLS/day, respectively, are non-contact, multiple effect evaporators that concentrate weak black liquor from the digesters. The A System was manufactured in 1965, and the B System was manufactured in 1975, both prior to the applicability date for 40 CFR Part 60, Subpart BB.

b. VOC RACT

VOC RACT for the A and B Digesters and Evaporators is the control of emissions by incineration in the Lime Kiln, in accordance with 06-096 CMR 124.

c. Periodic Monitoring

Federal regulation 40 CFR Part 63, Subpart S, contains a requirement to operate the LVHC Collection System with no detectable leaks. The following periodic monitoring for the LVHC system shall be conducted in accordance with Subpart S standards and as approved in an alternative monitoring plan:

Item to be Evaluated	Monitor and Record
LVHC collection system visual leak inspection	Monthly
LVHC collection system positive pressure demonstration (for those sections of the LVHC collection system under positive pressure)	Annually

Components of the LVHC Collection System subject to 40 CFR §63.443 shall meet the standards for enclosure and closed-vent systems in 40 CFR §63.450. [40 CFR Part 63, Subpart S]

d. LVHC System Recordkeeping and Reporting

(1) The applicable systems shall comply with the recordkeeping and reporting requirements of 40 CFR Part 63, Subpart S and 06-096 CMR 124.

(2) Verso Androscoggin shall not allow venting of TRS from the LVHC system or associated equipment required to be controlled which

(a) Exceeds 40 minutes in duration; or

(b) Contributes to an aggregate TRS venting of more than 1.0% of quarterly operating time. [06-096 CMR 124 (3)(C)]

(3) Verso Androscoggin must submit vent notification in accordance with 06-096 CMR 124 (5)(B)(1) as outlined in the Conditions of this license.

Verso Androscoggin must submit quarterly reports in accordance with 06-096 CMR 124 (5)(C)(5), (6), and (7), as applicable, as outlined in the Conditions of this license.

(4) The Mill shall maintain a written preventative maintenance program for each respective TRS gas collection system in accordance with 06-096 CMR 124 (3)(G).

4. Condensates Source Group/Clean Condensate Alternative

Condensates Source Group

Verso Androscoggin is subject to 40 CFR Part 63, Subpart S and the applicable provisions of Subpart A, which require the collection and treatment of pulping process condensates which contain a total HAP mass of 11.1 lb/ODTP or greater.

The following condensate streams may be collected to meet the mass collection requirement of 11.1 lb/ODTP from 40 CFR §63.446(c)(3):

Digester A Flash Steam Condenser	A Evaporators Pre-Evaporators
Digester B Flash Steam Condenser	B Evaporators Surface Condenser
A Evaporators Surface Condenser	B Evaporators 6 th Effect

The condensate streams are collected in the main foul Condensate Collection Tank (CCT). From there, they are transported in a closed collection system via a hard pipe, per 40 CFR §63.446(d)(1), and discharged below the liquid surface of the aerated stabilization basin. This biological treatment system is required by Subpart S to destroy a minimum of 10.2 lb/ton ODP of HAP. Quarterly condensate treatment performance tests conducted by Verso, as required under 40 CFR §63.453, documents the facility's compliance with this requirement. Because of the treatment method, emissions from the Condensates Source Group are combined and reported as part of emissions from the Wastewater Treatment Plant Group.

The CCT is a vertical, cylindrical, fixed-roof tank with a storage capacity of approximately 41,500 gallons. The tank is used as a flow-through process tank and collects condensates, then feeds them in a metered stream to the aeration lagoon. The CCT is equipped so that the fixed roof and all openings are operated with no detectable leaks, and each opening is maintained in a closed, sealed position at all times that the tank contains condensates (except when it is necessary to use the openings for sampling, removal, equipment inspection, maintenance, or repair). A water seal device at the top of the tank provides pressure and vacuum seal protection from over-design conditions. Condensate gases from the CCT are vented through a closed-vent system to the LVHC collection system, and then incinerated in the Lime Kilns.

Verso shall conduct annual leak detection inspections and positive pressure demonstrations for the CCT, in accordance with 40 CFR Part 63, Subpart S.

Clean Condensate Alternative Source Group: B Diffusion Washer

Federal regulation 40 CFR Part 63, Subpart S allows for the control of HAP emissions through a Clean Condensate Alternative which achieves a total HAP emission reduction equal to or greater than the total HAP emissions reduction that would have been achieved by compliance with the requirements of 40 CFR §§63.443(a)(1)(ii) through (a)(1)(v). Verso uses the Clean Condensate Alternative for the B Diffusion Washer.

Verso uses daily emission credits from the over-collection of methanol, above and beyond the amount required by the condensate collection requirements outlined above. This is achieved by routing the over-collected condensates through the existing Hard Pipe System and not through the open primary clarifier system. These credits are compared with emission debits of methanol emitted from the B-Diffuser System on a 15-day rolling total.

The Department has previously approved Verso's emission credit and debit calculation methodology to ensure compliance with the Clean Condensate requirements specified in 40 CFR §63.447. Other emission units associated with the B-side pulp washing system were determined to be "Categorically Exempt" or "Insignificant based on Size or Production Rate," as established in 06-096 CMR 140, Appendix B, and are therefore not addressed in this license.

I. Bleach Plant Source Group

Verso Androscoggin operates two bleach plants, Bleach Plants A and B, to physically and chemically whiten the brown stock pulp fibers (and pulp reclaimed from the Mill's paper mill and wastewater treatment process) in a series of reaction towers and washers. Bleach plant A is preceded by an oxygen delignification system. Chlorine dioxide (ClO_2) used in each of the bleach plants is manufactured in a separate, on-site process, which is vented to the bleach plant emissions control system.

The Bleach Plant Source Group consists of the following emission units. Other bleach plant emission units which are "Categorically Exempt or Insignificant Based on Size or Production Rate," per 06-96 CMR 140, Appendix B, are identified for inventory purposes in the Part 70 Air Emission License application.

Bleach Plant Scrubber Source Group Components

No. 10 Tower (Cl_2)	No. 35 Seal Tank*	No. 45B Washer
No. 20 Tower* (NaOH)	No. 45 Washer	No. 45B Seal Tank
No. 40 Tower (ClO_2 Tower)	No. 45 Seal Tank	B Bleached Leveling Chest*
No. 15 Washer	A Bleached Leveling Chest*	Primary ClO_2 Generator*
No. 15 Seal Tank	No. 35B Seal Tank*	Secondary ClO_2 Recovery Unit*
No. 35 Washer*	No. 45B Tower	Secondary ClO_2 Absorber*

* These units are not subject to 40 CFR Part 63, Subpart S.

1. New Source Performance Standards (NSPS) , 40 CFR Part 60

There are no NSPS requirements applicable to the Bleach Plant Source Group.

2. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

The A and B Bleach Plants (only the applicable equipment as defined in Subpart S) are subject to the requirements of NESHAP 40 CFR Part 63, Subpart S, *National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry*, and the general provisions of Subpart A as applicable per Subpart S. These requirements are addressed in the following sections.

3. Control Equipment

Exhaust gases from the A and B Bleach Plants and associated chemical preparation systems pass through two scrubbers in series, the ClO₂ Scrubber and the Cl₂ Scrubber, before being released to the atmosphere through a common stack. Each scrubber is a packed column using either white liquor or weak wash as the scrubbing media. The A Bleach Plant may operate with either the Cl₂ Scrubber or the ClO₂ Scrubber operating alone; the B Bleach Plant may operate with the Cl₂ Scrubber alone. This emissions control system satisfies the requirements of 40 CFR Part 63, Subpart S, §63.445(b).

4. VOC RACT

VOC RACT for the A and B Bleach Plants is the use of the Bleach Plant Scrubbers to control chlorine and chlorine dioxide emissions to a maximum of 3.0 lb/hour of each pollutant, and the discontinued use of sodium hypochlorite as a primary bleaching stage. [06-096 CMR 134]

5. Emission Limits and Streamlining

- a. As previously licensed, emissions from the Mill's A and B Bleach Plants shall not exceed 3.0 lb/hour of Cl₂ and 3.0 lb/hour of ClO₂. [A-203-70-A-I (January 12, 2005), BPT]
- b. Verso Androscoggin's bleach plant must meet one of the three control standards specified in 40 CFR Part 63, Subpart S, §63.445 (c).
- c. To reduce chloroform emissions from the bleaching processes, Verso shall use no hypochlorite or chlorine for bleaching in the bleaching system or pulp line. [40 CFR Part 63, Subpart S, §63.445 (d)(2)]

6. Emission Limit Compliance Methods

Compliance with the Cl₂ and ClO₂ lb/hour emission limits shall be demonstrated by stack testing performed once every five years and upon the request of the Department. [A-203-70-H-A (July 12, 2010)]

7. Periodic Monitoring

Components of the Bleach Plant Source Group subject to 40 CFR Part 63, Subpart S, §63.445 are those identified as part of the *Bleaching system* in this Subpart. *Bleaching system* means 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. These applicable components shall meet the standards for enclosure and closed-vent systems specified in 40 CFR §63.450.

8. Parameter Monitors

Subpart S requires the operation of a continuous monitoring system (CMS) on each Bleach Plant Scrubber to measure the pH or the oxidation/reduction potential (ORP) of the gas scrubber effluent, the gas scrubber vent gas inlet flow rate, and the gas scrubber liquid influent flow rate. In two letters from EPA, both dated March 14, 2001, Verso was granted approval for the following modifications to these monitoring requirements:

- a. The facility shall monitor the pH or the ORP of the scrubbers' *influent* in lieu of the scrubbers' *effluent*; and
- b. The facility shall monitor fan amps for the scrubbers' vent gas fans in lieu of monitoring vent gas inlet flow rate.

[40 CFR Part 63, Subpart S, §63.453 (c)]

Thus, Verso Androscoggin shall operate monitors and record the following parameters as specified for the A and B Bleach Plant Scrubbers as approved in an alternative monitoring plan [CFR Part 63, §63.453(c), and 06-096 CMR 140, BPT]:

<u>Parameter</u>	<u>Frequency</u>	
	<u>Monitor</u>	<u>Record</u>
Scrubber Recycle Flow Rate	Continuously	Once every 8 hours
Scrubber Pressure Drop		
Scrubber Influent pH		
Scrubber Influent ORP*		
Bleach Plant Scrubber Fan Amperage		

* ORP = oxidation-reduction potential

The continuous monitoring system must be operated in accordance with 40 CFR §63.8 and §63.453.

For the purposes of the above table, *continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period. The Mill's system is programmed to obtain a minimum of 75% valid data for the averaging period; under Subpart S, four data points every hour are not required.

To establish or reestablish the value for each operating parameter required by Subpart S, Verso Androscoggin shall use the procedures set forth in 40 CFR Part 63, Subpart S, §63.453 (n). [40 CFR Part 63, Subpart S, §63.453(n)]

Verso Androscoggin shall comply with applicable recordkeeping, reporting, and test methods and procedures requirements of Subpart S. [40 CFR Part 63, Subpart S, §63.454 (g); §63.457]

Verso Androscoggin shall submit performance test reports in accordance with 40 CFR Part 63, Subpart S, §63.455 (h), as applicable to the test method. [40 CFR Part 63, Subpart S, §63.455 (h)]

J. Paper Machines

1. #2, #3, and #4 Paper Machines: NSPS and NESHAP

a. New Source Performance Standards (NSPS), 40 CFR Part 60

Federal regulations under 40 CFR Part 60 include NSPS for specific sources, including the regulation 40 CFR Part 60, Subpart BB, *Standards of Performance for Kraft Pulp Mills*. The #2, #3, and #4 Paper Machines do not qualify as affected facilities under this Subpart. [40 CFR Part 60, Subpart BB, §60.280]

b. National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63

40 CFR Part 63, Subpart S

Pursuant to the Clean Air Act Amendments (CAAA) of 1990, Verso is subject to 40 CFR Part 63, Subpart S, *National Emission Standards for Hazardous Air Pollutants for the Pulp and Paper Industry*. However, this Subpart includes no requirements applicable to the #1, #2, #3, #4, and #5 Paper Machines. [40 CFR §63.440]

40 CFR Part 63, Subpart JJJJ

Federal regulation 40 CFR Part 63, Subpart JJJJ, *National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating*, applies to facilities that perform paper and other web coating operations. Verso Androscoggin performs coating operations on their paper machines. However, the coating is part of the sheet formation and on-machine operations. Pursuant to a letter dated November 19, 2003, from the U.S. EPA to Timothy Hunt of the American Forest and Paper Association, both size presses and on-machine coaters that function as part of the in-line papermaking system used to form the paper substrate are not subject to 40 CFR Part 63, Subpart JJJJ requirements. Therefore, Subpart JJJJ does not apply to the #1, #2, #3, #4, and #5 Paper Machines operations.

c. VOC RACT

The chapter of Maine's rules entitled *Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds*

(VOC-RACT), 06-096 CMR 134, exempts certain VOC-emitting equipment from the requirements contained therein. These listed exemptions include “paper machine area emissions which include paper machines and the finishing and converting areas.” The #1, #2, #3, #4, and #5 Paper Machines do not trigger requirements of this rule. [06-096 CMR 134, Section 1(C)(7)]

d. Compliance Assurance Monitoring (CAM)

The #1, #2, #3, #4, and #5 Paper Machines are not subject to CAM requirements of 40 CFR Part 64. To be subject to CAM requirements, an individual emission unit must satisfy all of the applicability requirements specified in §64.2. The paper machines do *not* each have an emission limit or standard for an applicable pollutant; and each do *not* use a control device to achieve compliance with a limit or standard. Thus, CAM requirements do not apply to the #1, #2, #3, #4, and #5 Paper Machines. [40 CFR Part 64, §64.2]

e. Paper Coating Regulation (06-096 CMR 123)

Requirements of 06-096 CMR 123, *Paper Coating Regulation*, apply to roll, knife, meyer rod, or rotogravure coater(s) and drying oven(s) of paper coating lines at stationary sources of VOC emissions. This regulation does not apply to size presses and on-machine coaters on papermaking machines that apply sizing or water-based clays. Since the #2, #3, and #4 Paper Machines coating systems are on-machine coaters, the requirements of this regulation do not apply. [06-096 CMR 123 (1)(C)(1)]

f. Periodic Monitoring

Verso Androscoggin shall maintain records of production and of additives and coating used in the paper or substrate formation associated with the #1, #2, #3, #4, and #5 Paper Machines. Annual production and VOC emissions based on industry emission factors for bleached kraft paper are to be reported in the annual emissions reporting required in Specific Condition (51) of this license.

Periodic Monitoring shall also consist of recordkeeping which demonstrates fuel use for the #3 PM Infrared Dryers and the #4 Paper Machine Calender Roll, Infrared Dryer, and Flootation Dryer.

2. Additives and Coatings

Verso Androscoggin shall maintain records of production and of additives and coatings used in the paper or substrate formation associated with the Paper Machines. Annual emissions from the Paper Machines, to be reported in

accordance with 06-096 CMR 137, will be calculated based on production and industry-based emission factors for bleached kraft paper machines.

3. #2 Paper Machine

The #2 Paper Machine produces coated papers. NSR Air Emission License A-203-77-19-A was issued on February 8, 2013, authorizing modifications to the #2 Paper Machine to improve reliability and performance. There were no additional Specific Conditions as part of this NSR license.

BACT for particulate matter (PM, PM₁₀, PM_{2.5}) and VOC emissions from the #2 Paper Machine is good operating practices in accordance with manufacturer's recommendations. [A-203-77-19-A (February 8, 2013)]

4. #3 Paper Machine

Air emission sources associated with the #3 Paper Machine are infrared coater dryer units operated on the machine. The dryers fire natural gas or propane at a maximum heat input of 13.92 MMBtu/hour.

<u>Equipment</u>	<u>Max. Capacity (MMBtu/hr)</u>	<u>Associated Single-Fuel Firing Rate</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
#3 PM Infrared Dryers	13.92	154 gal/hr	Propane, negligible	PM3ID
		13,647 ft ³ /hr	Natural Gas, negligible	

a. Emission Limits and Streamlining

#3 Paper Machine Infrared Dryers Emission Limits

<u>Pollutant</u>	<u>Applicable Standards</u>	<u>Origin and Authority</u>	<u>Emission Limits</u>
PM	0.05 lb/MMBtu 0.70 lb/hr	A-203-71-AU-A, (December 20, 1999), BACT	0.05 lb/MMBtu 0.70 lb/hr
PM ₁₀	0.70 lb/hr		0.70 lb/hr
SO ₂	0.05 lb/hr		0.05 lb/hr
NO _x	2.0 lb/hr		2.0 lb/hr
CO	2.2 lb/hr		2.2 lb/hr
VOC	0.14 lb/hr		0.14 lb/hr
Visible Emissions	20% on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period	06-096 CMR 101, 2(B)(3)(d)	10% opacity on a six-minute block average basis
	10% opacity on a six-minute block average basis	A-203-71-AU-A, (December 20, 1999), BACT	

b. Emission Limits Compliance Methods

Compliance with the above emission limits shall be via emissions testing in accordance with the applicable method as specified in 40 CFR Part 60, Appendix A, upon request of the Department.

5. #4 Paper Machine Source Group

The #4 Paper Machine Source Group produces coated and uncoated papers and includes the following emission units:

Equipment	Max. Capacity (MMBtu/hr)	Associated Single-Fuel Firing Rate	Fuel Type, % sulfur	Stack #
#4 PM Calender Roll (Beloit Soft-Nip Calender Roll)	14 ¹	100 gal/hr	Distillate fuel*, ASTM D396 compliant (0.5% S)	PM4CR
		155 gal/hr	Propane, negligible	
		13,726 ft ³ /hr	Natural Gas, negligible	
#4 PM Infrared Dryers	9.6 ²	106 gal/hr	Propane, negligible	PM4IR
		9,412 ft ³ /hr	Natural Gas, negligible	
#4 PM Air Flootation Dryers	8 ³	88 gal/hr	Propane, negligible	PM4FD
		7,843 ft ³ /hr	Natural Gas, negligible	
Trimvac Trim Conveying System	N.A.	The trim conveying vacuum system vents to a wet cyclone separator.		

* The Part 70 Section 502 (b)(10) Change identified in a letter dated June 23, 2014, requested specification of “distillate fuel” as a licensed fuel for the #4 PM Calender Roll, to allow flexibility of fuel use within the same fuel category.

¹ two American Hydrotherm burners, each @ 7 MMBtu/hour

² two Solaronics burners, each @ 4.8 MMBtu/hour

³ two Maxxon dryers, each @ 4 MMBtu/hour

a. NESHP

The #4 PM Calender Roll heats oil (instead of making steam) in a fire-tube boiler. As such, the #4 PM Calender Roll is subject to the applicable requirements of 40 CFR Part 63, Subpart DDDDD. Under Subpart DDDDD, #4 PM Calender Roll is considered a process heater designed to burn liquid fuel and light liquid fuel.

Verso must comply with the applicable requirements of this regulation no later than January 31, 2016, or no later than the date established per a request for a compliance date extension made in accordance with 40 CFR §63.6(i). [40 CFR §63.7495(b)] Note that if the status of the Final

Rule (Boiler MACT Final Rule of January 31, 2013) should change, the compliance date may also change.

The #4 PM Calender Roll process heater must comply with applicable work practice standards, recordkeeping and reporting, and requirements as specified in Tables 3 and 9 of Subpart DDDDD.

b. Emission Limits

The Department has determined that the #4 Paper Machine is meeting BACT requirements through the use of propane, natural gas, and distillate fuels in the direct-fired dryer systems and good combustion practices. BACT emission limits were determined as follows:

Unit	lb/MMBtu	lb/hour					
	PM	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
#4PM Calender Roll	0.12 ¹	1.7	1.7	7.1	4.2	4.2	1.4
Infrared Dryers	0.05 ¹	0.5	0.5	0.01	2.4	3.8	1.0
Air Floatation Dryers	0.05 ²	0.4	0.4	0.1	2.0	3.2	0.8
Trimvac Trim Conveying System	--	2.0 ²	1.0 ²	--	--	--	--

¹ [A-203-71-AC-A (October 15, 1996), A-203-77-6-A (July 15, 2009), and A-203-77-13-A (January 19, 2012); BACT]

² [A-203-71-AA-A (June 27, 1996), A-203-77-6-A (July 15, 2009), and A-203-77-13-A (January 19, 2012); BACT]

[A-203-77-8-A (November 20, 2009), A-203-77-13-A (January 19, 2012), and A-203-77-13-A (January 19, 2012); BACT unless otherwise noted]

BACT limits for visible emissions from these same units are summarized as follows:

Unit	Visible Emissions Limit	Authority
#4PM Calender Roll	10% opacity on a six-minute block average basis while firing propane or natural gas; and 20% opacity for no more than 5 minutes in any continuous one-hour period when firing distillate fuel	A-203-71-AA-A (June 27, 1996), A-203-77-6-A (July 15, 2009), and A-203-77-13-A (Jan. 19, 2012); BACT
Infrared Dryers	10% opacity on a six-minute block average basis	
Air Floatation Dryers	10% opacity on a six-minute block average basis	
Trimvac Trim Conveying System	5% opacity on a six-minute block average basis	A-203-71-AC-A (Oct. 15, 1996), A-203-77-6-A (July 15, 2009), and A-203-77-13-A (Jan. 19, 2012); BACT

K. Steam Jenny

Verso Androscoggin operates a distillate oil (kerosene) fired boiler, the Steam Jenny, at the hydro stations to melt river ice. The Steam Jenny is a portable, fire tube boiler with a maximum heat input capacity of 1.7 MMBtu/hour.

1. The fuel fired in the Steam Jenny shall be kerosene or distillate fuel which complies with the fuel sulfur requirements of 38 MRSA §603-A(2)(A)(3) and 06-096 CMR 106.
2. Visible emissions from the Steam Jenny shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [06-096 CMR 101 (2)(B)(1)(b)]
3. The Steam Jenny is subject to 40 CFR Part 63, Subpart DDDDD, as an existing boiler with capacity less than 5 MMBtu/hour. As such, Subpart DDDDD requires that a tune-up be conducted on this unit every five years in the manner as specified in 40 CFR §63.7540. [Part 1 of Table 3 to 40 CFR Part 63, Subpart DDDDD]

L. Water Treatment Plant Furnaces

The Water Treatment Plant (WTP) process includes drawing water from the Androscoggin River to supply mill process water needs, including boiler feedwater. The river water is filtered and treated before being distributed to the Mill system. This facility operates the WTP Main Furnace and the WTP Small Furnace for space heating.

The WTP Main Furnace has a maximum design capacity of 3.1 MMBtu/hour and fires distillate fuel. The WTP Small Furnace has a maximum design capacity of 1.1 MMBtu/hour and also fires distillate fuel.

1. NSPS, NESHAP

There are no NSPS or NESHAP requirements associated with either Water Treatment Plant furnace. The WTP Main and Small Furnaces are not subject to 40 CFR Part 63, Subpart DDDDD. These units are indirect-fired air heating units used for space heating and are not applicable boilers or process heaters. Thus, the WTP Main and WTP Small Furnaces are not subject to 40 CFR Part 63, Subpart DDDDD. [based on definitions found at 40 CFR §63.7575]

2. Emission Limits and Streamlining

WTP Main Furnace Emission Limits

Pollutant	Applicable Standards	Origin and Authority	Emission Limits
PM	0.12 lb/MMBtu	06-069 CMR 103 (2)(B)(1)(a)	0.12 lb/MMBtu
	0.4 lb/hr	A-203-70-A-I (January 12, 2005); BACT	0.4 lb/hr, 1-hour average
PM ₁₀	0.4 lb/hr	A-203-70-A-I (January 12, 2005); BACT	0.4 lb/hr, 1-hour average
SO ₂	2.0% by wt. fuel sulfur content limit	06-096 CMR 105, 2(A)(2)	Fuel sulfur content limit*
	0.5% by wt. fuel sulfur content limit	38 MRSA §603-A(2)(A)(3)	
	0.94 lb/hr	A-203-70-A-I (January 12, 2005); BACT	0.94 lb/hr, 1-hour average
NO _x	0.93 lb/hr	A-203-70-A-I (January 12, 2005); BACT	0.93 lb/hr, 1-hour average
CO	0.11 lb/hr	A-203-70-A-I (January 12, 2005); BACT	0.11 lb/hr, 1-hour average
VOC	0.01 lb/hr	A-203-70-A-I (January 12, 2005), BPT	0.01 lb/hr, 1-hour average
Visible Emissions	30% opacity for no more than five minutes in any one-hour period	A-203-71-E-R, (September 3, 1996); BACT	20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period
	20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period	06-096 CMR 101, 2(B)(1)(b)	

* as defined by ASTM D396 standards for distillate fuel oil

The fuel fired in the WTP Main Furnace shall be kerosene or distillate fuel which complies with the fuel sulfur requirements of 38 MRSA §603-A(2)(A)(3) and 06-096 CMR 106.

WTP Small Furnace Emission Limits

Pollutant	Applicable Standard or Emission Factor	Basis/ Origin and Authority	Licensed Emission Limits
PM	3.3 lb/1000 gal	AP-42 Table 1.3-1 (5/10)	0.02 lb/hr
PM ₁₀ , PM _{2.5}	1.3 lb/1000 gal	AP-42 Tables 1.3-1 and 1.3-2 (5/10)	0.02 lb/hr
SO ₂	Fuel sulfur content limit of 0.5% by weight	38 MRSA §603-A(2)(A)(3)	Fuel sulfur content limit*
	142S lb/1000 gal, S=0.5	AP-42 Table 1.3-1 (5/10)	0.53 lb/hr

Pollutant	Applicable Standard or Emission Factor	Basis/ Origin and Authority	Licensed Emission Limits
NO _x	20 lb/1000 gal	AP-42 Table 1.3-1 (5/10)	0.15 lb/hr
CO	5 lb/1000 gal		0.04 lb/hr
VOC	0.34 lb/1000 gal	AP-42 Table 1.3-3 (5/10)	0.01 lb/hr
Visible Emissions	20% on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period	06-096 CMR 101, 2(B)(1)(b)	20% on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period

* as defined by ASTM D396 standards for distillate fuel oil

The fuel fired in the WTP Small Furnace shall be kerosene or distillate fuel which complies with the fuel sulfur requirements of 38 MRSA §603-A(2)(A)(3) and 06-096 CMR 106.

Unless otherwise specified, the averaging times for the emission limits in these tables are based on the specified averaging time of the applicable test method for each pollutant.

3. Emission Limits Compliance Methods

Compliance with the emission limits for the WTP Main Furnace and the WTP Small Furnace shall be demonstrated through testing according to the applicable emissions test method of 40 CFR Part 60, Appendix A, on the request of the Department.

4. Periodic and Parameter Monitoring

Periodic Monitoring shall consist of recordkeeping demonstrating the amount of fuel used by the WTP Main Furnace and the WTP Small Furnace and information from the fuel supplier indicating the type of fuel meeting ASTM D396 standards for distillate fuel. When lower fuel sulfur content standards apply according to the dates specified in 06-096 CMR 106, Verso shall maintain records showing compliance with the applicable fuel sulfur content.

There are no Parameter Monitors required for either the WTP Main Furnace or the WTP Small Furnace.

M. Wastewater Treatment Plant Source Group

The Wastewater Treatment Plant (WWTP) Source Group consists of emission sources in the wastewater treatment plant process. Specifically, the WWTP Source Group consists of the following emission sources:

Primary Clarifiers (2)
Wet Well (2)

Aeration Lagoon
Secondary Clarifiers (2)

The wastewater system receives wastewater from various process streams at the Mill. Wastewater treatment at the Mill consists of clarification in two primary clarifiers, biological treatment in an aeration lagoon, and final clarification before the water is returned to the river.

1. VOC RACT

VOC RACT for Verso Androscoggin's WWTP Source Group is maintaining their National Pollution Discharge Elimination System (NPDES) discharge permit or Maine PDES license.

The Aeration Lagoon is used as the control method for the Condensate Source Group, it is subject to the applicable requirements of 40 CFR Part 63, Subpart S and the applicable general provisions of 40 CFR Part 63, Subpart A. Pulping process condensates (addressed in Section H of this License) are discharged below the liquid surface of the Aeration Lagoon, the biological treatment system for the condensates, and are treated to meet the requirements of 40 CFR Part 63, Subpart S, §63.446 (e).

2. Periodic Monitoring

Verso Androscoggin shall conduct periodic monitoring in accordance with the requirements of 40 CFR §63.453 (j), including the following:

- a. Monitor the following parameters daily for the Aeration Lagoon:
 - (1) Inlet soluble COD;
 - (2) Horsepower of aerator units;
 - (3) Effluent flow (representing inlet flow). [40 CFR §63.453 (j)(1)(i)]
- b. Obtain samples at the Aeration Lagoon for percent HAP reduction testing in accordance with the requirements of 40 CFR Part 63, Subpart S §63.453 (j)(1)(ii) and (j)(3); and perform testing in accordance with test methods and procedures as described in 40 CFR §63.457 (g). [40 CFR §63.453 (j)(1)(ii)]

N. Groundwood Mill

The Groundwood Mill process area produces groundwood pulp through a mechanical process. Debarked logs from the Woodyard area are conveyed via the Groundwood Flume to a set of grinders (Grinders No. 1 through No. 6), which grind the logs and mix them with water to form a groundwood pulp slurry. The groundwood pulp is discharged from the grinders to the Grinder Flume. From the Grinder Flume, the groundwood pulp is screened, refined, and cleaned, and is

then sent to a set of deckers where the slurry is thickened. The groundwood pulp is then bleached and sent to the Paper Mill.

The Groundwood Mill has the capacity to produce 480 air dried tons of unbleached pulp per day. VOC emissions result from grinding and processing of both softwood and hardwood. These emissions are quantified by tracking production and wood species, and using mill-specific softwood and hardwood emission factors established by stack testing.

1. NSPS and NESHAP

There are no NSPS or NESHAP standards or requirements applicable to the Groundwood Operations.

2. VOC RACT

VOC RACT for the Groundwood Mill was addressed by way of an alternative VOC RACT, pursuant to 06-096 CMR 134. Testing conducted in June and July of 2008 at the facility identified VOC emission factors of 0.120 pound per air dried ton of pulp (lb/ADTP) for hardwood and 3.648 lb/ADTP for softwood.

At full capacity and assuming 100% softwood production in the Groundwood Mill, the Grinders have the potential to emit 320.0 tons/year of VOC. However, in NSR license A-203-77-4-A (January 6, 2009), the annual VOC emission limit from the Grinders Source Group was established as 126.7 tons/year. This limit is carried over in this license.

Compliance with this limit shall be demonstrated by maintaining records of groundwood pulp production rates (in ADTP) specific to wood species processed (hardwood/softwood) on a monthly basis and calculating VOC emissions, in tons, based on an emission rate of 0.120 lb of VOC/ADTP for hardwood and 3.648 lb of VOC/ADTP for softwood on a 12-month rolling total basis. [A-203-77-5-A (January 6, 2009)]

3. BPT for the Groundwood Mill is continued good operational and maintenance practices to minimize air emissions from the process.

O. Bulk Handling Systems Source Group

The Bulk Handling Systems Source Group consists of emission sources used in the storage and handling of bulk process elements. Specifically, the Bulk Handling Systems Source Group consists of the following emission sources:

1. Recaust

Recaust lime pneumatic unloading system, consisting of silos A and B, each with a capacity of 100 tons of lime. These silos are vented to a baghouse during bulk lime unloading.

2. Additives Building

The starch pneumatic unloading systems consist of two silos in Additives (North and South) and three silos in Coating Prep (Starch Silos #1, #2, and #3). Starch is unloaded into the Additives Building Starch Silos through a ground level feeder and into two 100-ton silos (North and South) controlled by one common baghouse. Starch used as a paper coating is unloaded into the #1, #2, and #3 Starch Silos in coating prep. The feeder and each of the Starch Silos are equipped with baghouses.

3. Wastewater Treatment Plant (WWTP)

The Wastewater Treatment pneumatic lime unloading system consists of one lime silo, controlled by a baghouse when it is in use.

4. Power Plant

The saltcake pneumatic unloading system consists of one saltcake silo. The single silo is equipped with a baghouse on top. The system is vented to a cleanout pit and is equipped with a leak detector.

5. Control Equipment

Control equipment for the Bulk handling Systems Source Group consists of baghouses on the bulk storage silos.

6. Emission Limits

Visible emissions are limited under 06-096 CMR 101, Section 2(B)(3)(c) to 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period. Corrective action is required to be taken if emissions from any baghouse exceed 5% opacity.

7. Periodic Monitoring

Periodic Monitoring shall consist of inspection of all unloading systems for leaks and malfunctions before unloading bulk process elements into any of the silos that comprise the Bulk Handling Systems Source Group, and maintenance logs recording the date and location of all baghouse bag failures and routine maintenance on the baghouses.

8. All spills, including lime, clay, saltcake, and starch, shall be cleaned up within 24 hours of the occurrence of each spill. [A-203-70-A-I (January 12, 2005), BPT]
9. Verso shall inspect all unloading systems for leaks and malfunctions before commencing the unloading of materials into any of the silos of the Bulk Handling Systems Source Group. If a leak or malfunction is detected during unloading, Verso shall discontinue unloading until the leak or malfunction is corrected and eliminated. [A-203-70-A-I (January 12, 2005), BPT]

P. Landfill [A-203-70-A-I (January 12, 2005)]

The initial phases of the landfill at Verso Androscoggin were constructed in 1976. The landfill is used for disposal of a variety of mill-generated solid waste, including Wastewater Treatment Plant sludge, caustic wastes, refuse, and minor quantities of ash, knots and screenings, and woodyard wastes. The landfill emits fugitive methane and a small amount of non-methane VOC. The facility monitors the composition of landfill gases pursuant to its Maine DEP Solid Waste License #S-006247-WD-N-R.

VOC RACT for the landfill is the continued periodic sampling and analysis as required by the solid waste license.

Asbestos has been disposed of in the landfill in the past. The areas of the landfill containing asbestos waste are subject to the requirements of 40 CFR Part 61, Subpart M, *National Emission Standard for Asbestos*, §61.154: *Standard for active waste disposal sites*, and shall comply with all applicable parts thereof.

Q. Propane Flares

Verso Androscoggin has two Propane Flares which are infrequently used for maintenance and troubleshooting. These flares are used to purge the propane system, which includes the propane tank serving the #3 and #4 Paper Machines and the tank serving the RTO, during propane system maintenance. Due to the very infrequent use of these flares, the Department finds it unnecessary to limit use or emissions from these units.

R. Emergency Engines

Verso Androscoggin operates several existing emergency reciprocating internal combustion engines (RICE). Such units include emergency drives on Lime Kilns A and B (gasoline-fired), the Reaust Emergency Power Generator (propane-fired), the Big Daddy Pump (465 kW), the Fire Pump (268 hp), and others. The following generator/engine equipment classes are included in this Part 70 License renewal:

<u>Equipment Description</u>	<u>HP</u>	<u>40 CFR Part 63, Subpart ZZZZ Unit Classification</u>
Existing Emergency RICE	> 500	Existing Emergency Stationary Combustion Ignition (CI) Engines > 500 HP installed prior to December 19, 2002
	< 500	Existing Emergency Stationary CI Engines < 500 HP

For those engines firing distillate fuel, the fuel sulfur content shall not exceed 0.0015% by weight (15 ppm).

1. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

The federal regulation 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines* is applicable to the emergency engines at Verso Androscoggin. The units are considered existing, emergency stationary reciprocating internal combustion engines at a major HAP source and are not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) specifically does not exempt these units from the federal requirements.

a. Emergency Definition

Emergency stationary reciprocating internal combustion engine (RICE) is defined in 40 CFR Part 63, Subpart ZZZZ as any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary RICE used to produce power for critical networks or equipment - including power supplied to portions of a facility - when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or used to pump water in the case of fire or flood, etc.

Federal regulation 40 CFR §63.6640(f) limits maintenance checks and readiness testing of the units to 100 hours per year. Emergency stationary RICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing.

- b. Each emergency engine shall meet the maintenance requirements in 40 CFR Part 63, Subpart ZZZZ §63.6603(a) and Table 2(d).
- c. Each engine shall have a maintenance plan in accordance with 40 CFR §63.6625(e).

- d. A non-resettable hour meter shall be installed and operated on each engine. [40 CFR §63.6625(f)]
- e. With the exception of Big Daddy, each engine shall be limited to 100 hours/year for maintenance and testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving or generating income via a financial arrangement with another entity). A maximum of 15 hours per year (of the 50 hours/year) may be used as part of a demand response program. [40 CFR §63.6640(f)(1)]
- f. Verso Androscoggin shall keep records in accordance with the requirements of 40 CFR §63.6655(e) and (f).

2. Big Daddy

Big Daddy is an existing emergency stationary RICE with a site-rating of more than 500 hp located at a major source of HAP emissions and was installed prior to December 19, 2002. Therefore, Big Daddy is exempt from RICE MACT emission limits or operating practices (see emergency stationary RICE definition at 40 CFR §63.6675).

Big Daddy may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing must be minimized, but there is no time limit on the use of Big Daddy in emergency situations and for routine testing and maintenance. Big Daddy may also operate an additional 50 hours per year in non-emergency situations.

3. Periodic Monitoring

Verso Androscoggin shall monitor and record parameters for *each engine* as indicated in the following table whenever the equipment is operating.

<u>Parameter</u>	<u>Units of Measure</u>	<u>Monitoring Tool/Method</u>	<u>Frequency</u>
Fuel oil sulfur content	Ultra low sulfur (ULS) designation	Fuel receipts from supplier	As fuel is purchased, for distillate fuel-fired units
Operating time	Hours	Hour Meter	Log of operation with date and hour meter reading

S. **Organic Liquids Bulk Storage Tanks**

1. Methanol Bulk Storage Tank

The Pulp Mill area has one above ground, direct feed, methanol bulk storage tank with a capacity of 14,600 gallons (55.27 cubic meters). This tank was

installed in 1998. Federal regulation NSPS 40 CFR Part 60, Subpart Kb, *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*, applies to such storage vessels with a capacity greater than or equal to 75 cubic meters; thus, Verso's Methanol Bulk Storage Tank is not subject to this Subpart. [40 CFR Part 60, Subpart Kb, §60.110b(a)]

This tank is not subject to 40 CFR Part 63, Subpart EEEE, *NESHAP for Organic Liquid Distribution (Non-Gasoline)*, per EPA's review and letter dated December 14, 2004, pertaining to ClO₂ generation equipment for pulp and paper mill bleaching systems. This includes methanol storage tanks used for the sole purpose of ClO₂ generation and storage.

The Methanol Bulk Storage Tank is not currently in use. Verso shall notify the Department before commencing use of the Methanol Bulk Storage Tank. [A-203-70-A-I (January 12, 2005), 06-096 CMR 140, BPT]

2. Gasoline Storage Tank

Verso Androscoggin has an existing 10,000 gallon gasoline storage tank. The tank is an underground, double-walled fiberglass tank equipped with a submerged fill pipe. The fiberglass tank was installed with a vapor detection system between the double walls of the tank. In addition, the tank is equipped with steel piping with cathodic protection. Monthly gasoline throughput at the Mill is less than 10,000 gallons, and annual throughput is less than 1,000,000 gallons.

a. NSPS and NESHAP

There are no NSPS or NESHAP subparts which are applicable to the Gasoline Storage Tank. Federal Regulation 40 CFR Part 63, Subpart CCCCCC, *National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities*, is not applicable, as it only applies to an area source of HAP emissions. [40 CFR Part 63, Subpart CCCCCC, §63.11111(a)]

b. Maine Rule 06-096 CMR 118, *Gasoline Dispensing Facilities Vapor Control*

The parts of this Chapter applicable to the Gasoline Storage Tank include a submerged fill pipe and recordkeeping requirements. Because the monthly and annual throughputs for this tank are not at or above the applicability thresholds for 06-096 CMR 118, there are no additional applicable requirements.

Verso Androscoggin shall maintain records and provide notices in accordance with 06-096 CMR 118.

Verso Androscoggin shall maintain a submerged fill pipe that extends to within six inches of the bottom of the gasoline storage tank. [06-096 CMR 118 (4)(A)]

T. Temporary Units Source Group

1. Introduction

Verso Androscoggin is licensed to bring on-site and to operate a variety of temporary equipment, including but not limited to small Package Boilers. These units are leased and brought on-site on an as-needed basis and are not intended as permanent installations; the exact size of each unit varies based on the need and intended use. These temporary emission units are licensed to operate in addition to currently licensed emission sources.

Temporary units are defined as units with a heat input capacity of less than 10 MMBtu/hour and which are rented/leased and on-site for longer than four weeks but less than 12 months, unless an extension is approved by the Department, per unit per calendar year. This section is not applicable to non-road engines (mobile equipment) as defined in 40 CFR §1068.30, including air compressors, generators, and wood tub grinders (internal combustion and spark ignition engines), as these are not stationary sources.

2. NESHAP Applicability

Per 40 CFR 63, Subpart DDDDD, §63.7491 (j), temporary boilers are not subject to this subpart. *Temporary boiler* means any gaseous or liquid fuel boiler that is designed to and is capable of being carried or moved from one location to another such as by means of wheels, skids, carrying handles, dollies, trailers, or platforms. A boiler is not a temporary boiler if any one of the following conditions exists:

- a. The equipment is attached to a foundation.
- b. The boiler or a replacement remains at a location within the facility and performs the same or similar function for more than 12 consecutive months, unless the Department approves an extension.

Boilers addressed under the Temporary Units Source Group are temporary boilers and thus not subject to 40 CFR Part 63, Subpart DDDDD.

3. Emission Limits [06 096 CMR 101 (2)(B)(3)(d)]

Visible emissions from any unit in the Temporary Units Source Group shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in any one-hour period.

4. Periodic Monitoring [06-096 CMR 140, BPT]

Verso Androscoggin shall comply with the following periodic monitoring requirements:

- a. Records shall include the types and quantities of fuels based on receipts.
- b. Records shall include the dates that each unit was rented or leased and the capacity of the unit rented or leased.
- c. These records shall be made available to the Department upon request.

U. Quality Control Print Laboratory

Verso Androscoggin operates a Quality Control Print Laboratory which consists of a Printing Press and a Drying Oven used to test the printability of papers produced at the Mill. The Printing Press is not used for production purposes. The Drying Oven is considered an Insignificant Activity under Appendix B (101) of 06-096 CMR 140 and is not addressed further in this license.

As specified in 06-096 CMR 140, Appendix B, B(11), printing operations using less than 50 gallons per year (combined) of VOC or HAP containing coating is identified as an Insignificant Activity. The quantity of VOC emissions from the Printing Press as reported by the facility for 2012 confirmed the Printing Press as an Insignificant Activity.

Using guidance from *EPA's Control Techniques Guidelines for Paper, Film, and Foil Coatings* (June 2007, Draft) – which is not applicable to this equipment but which does provide some numerical demarcation for VOC content-based emission limits for coatings – Verso shall consider any coating or ink product used in the Printing Press with a VOC or HAP content greater than 0.08 lb VOC or HAP per lb of coating applied (8% VOC or HAP by weight) to be a *VOC or HAP containing coating*; coatings or inks with a lower VOC or HAP content shall not be considered when determining “Insignificant Activity” status per 06-096 CMR 140, Appendix B, B(11).

If usage exceeds 50 gallons per year (combined, on a calendar year basis) of VOC or HAP containing coating in the Printing Press, Verso shall amend their license to change the status of this equipment from “Insignificant” to a licensed emissions source.

V. Parts Washers

Parts washers utilized at Verso are subject to *Solvent Degreasers*, 06-096 CMR 130 (as amended), and records shall be kept documenting compliance.

W. General Process Sources

Visible emissions from any general process source not specifically addressed in this license shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period. [06-096 CMR 101]

X. Fugitive Emissions Sources

Visible emissions from a fugitive emission source, including stockpiles and roadways, shall not exceed 20% opacity except for no more than five minutes in any one-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any one hour. [06-096 CMR 101]

Y. Facility Annual Emissions

1. Total Annual Emissions

The table below provides an estimate of mill-wide potential emissions for the purposes of quantifying future license fees. The tons per year emissions were determined assuming constant operation of each emission unit at maximum capacity unless the unit is limited by the license to less than maximum capacity operation. In each case where a unit is license-limited, the combination of operating conditions that would produce the greatest emissions was considered. Previously licensed emission limits were used in every feasible situation. SO₂ emissions were computed using a mass balance calculation whenever possible.

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

<u>Pollutant</u>	<u>Tons/Year</u>
PM	1,275.3
PM ₁₀	1,250.0
SO ₂	5,792.1
NO _x	2,353.5
CO	9,428.0
VOC	1,383.7
Cl ₂	13.1
ClO ₂	13.1

The emissions listed above are based on the following emission rates per unit:

Emission Unit	PM (ton/year)	PM₁₀ (ton/year)	SO₂ (ton/year)	NO_x (ton/year)	CO (ton/year)	VOC (ton/year)
Power Boilers #1 and #2	119.1	101.6	436.4	226.9	19.9	5.1
Boiler #3	210.2	210.2	1681.9	841.0	5256.0	614.1
Recovery Boilers	583.9	583.9	3532.9	934.3	1167.7	97.7
Smelt Tank #1	60.0	60.0	11.8	--	--	--
Smelt Tank #2	51.2	49.1	17.1	--	--	--
A Lime Kiln	111.7	111.7	74.6	145.9	1459.9	6.1
B Lime Kiln	109.5	109.5		145.9	1459.9	6.1
RTO	4.4	4.4	8.8	7.49	5.3	13.1
Grinders	--	--	--	--	--	126.7
#3 PM– IR Dryer	3.0	3.0	0.2	8.8	9.6	0.6
#4PM – IR Dryer	2.1	2.1	0.4	10.5	16.6	4.4
#4 PM – Floatation Dryer	1.8	1.8	0.4	8.8	14.0	3.5
#4 PM – Calendering Roll	7.4	6.1	18.5	18.4	18.4	6.1
#4 PM Trim Conveyor System	8.8	4.4	--	--	--	--
Water Treatment Main Furnace	1.6	1.6	6.8	4.1	0.5	0.1
Water Treatment Small Furnace	0.6	0.6	2.3	1.4	0.2	0.1
WWTP	--	--	--	--	--	500*

* This represents a rough, high-end estimate of emissions of methanol from the WWTP based on quarterly performance test results and is not considered a limit.

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through ‘Tailoring’ revisions made to EPA’s *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21, *Prevention of Significant Deterioration of Air Quality* rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO₂e).

The quantity of CO₂e emissions from this facility is greater than 100,000 tons per year, based on the following:

- the facility's fuel use limits;
- worst case emission factors from U.S. EPA's AP-42, the Intergovernmental Panel on Climate Change (IPCC), and 40 CFR Part 98, *Mandatory Greenhouse Gas Reporting*; and
- global warming potentials contained in 40 CFR Part 98.

No additional licensing actions to address GHG emissions are required.

IV. AMBIENT AIR QUALITY ANALYSIS

Verso Androscoggin 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. NO₂ modeling was conducted in association with air emission license A-203-77-13-A, dated January 19, 2012; SO₂, PM₁₀, and CO modeling was conducted in association with air emission license A-203-71-E-R (September 3, 1996). An additional ambient air quality analysis is not required for this Part 70 License.

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 Part 70 License A-203-70-G-R/A pursuant to 06-096 CMR 140 and the preconstruction permitting requirements of 06-096 CMR 115 and subject to the standard and specific conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to Verso Androscoggin pursuant to the Department's preconstruction permitting requirements in 06-096 CMR 108 or 115 have been incorporated into this Part 70 license, except for such conditions that the Department has determined are obsolete, extraneous, or otherwise environmentally insignificant, as explained in the findings of fact accompanying this license. As such, the conditions in this license supersede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in 06-096 CMR 115 or other applicable rules under 06-096 CMR for making such changes and pursuant to applicable requirements in 06-096 CMR 140.

For each standard and specific condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only.**

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.

STANDARD STATEMENTS

- (1) Approval to construct shall become invalid if the source has not commenced construction within 18 months after receipt of such approval or if construction is discontinued for a period of 18 months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both; [06-096 CMR 140]
- (2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege; [06-096 CMR 140]
- (3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable. [06-096 CMR 140]
- (4) Verso Androscoggin may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license; [06-096 CMR 140]
- (5) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 140]
- (6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:
 - A. Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or
 - B. The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary, thereof.

Nothing in this section or any Part 70 license shall alter or affect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by Verso Androscoggin in an application dated October 13, 2009 and most recently supplemented on January 17, 2013. [06-096 CMR 140]

	<u>Source</u>	<u>Citation</u>	<u>Description</u>	<u>Basis for Determination</u>
A	Facility	06-096 CMR 107	Sulfur Dioxide Emission Standards for Sulfite Mills	Verso Androscoggin is not a sulfite pulp mill.
B	Petroleum Tanks	06-096 CMR 111	Petroleum Liquid Storage Vapor Control	All petroleum tanks at the facility greater than 39,000 gallons (volume) contain liquid with true vapor pressures < 1.0 psia.
C	Petroleum Tanks	06-096 CMR 112	Bulk Terminal Petroleum Liquid Transfer Requirements	Verso Androscoggin does not have a bulk gasoline terminal.
D	Gasoline Tank	06-096 CMR 119	Motor Vehicle Fuel Volatility Limit	
E	Power Boiler #3, Recovery Boilers #1 and #2	06-096 CMR 121	Emission Limitations and Emission Testing of Resource Recovery Facilities	Verso Androscoggin is not a resource recovery facility.
F	Paper Machines 2, 3, and 4	06-096 CMR 123	Paper Coating Regulation	This rule does not apply to on-machine coaters on papermaking machines.
G	Paper Machines 1 and 5	06-096 CMR 123	Paper Coating Regulation	The rule does not apply to machines without on-machine coaters.
H	Facility	06-096 CMR 125	Perchloroethylene Dry Cleaner Regulation	Verso Androscoggin does not have any dry-cleaning operations.
I	Facility	06-096 CMR 126	Capture Efficiency Test Procedures	Verso Androscoggin does not have add-on controls for VOCs with total enclosures.
J	Facility	06-096 CMR 127	New Motor Vehicle Emission Standards	Verso Androscoggin is not a car or truck dealer.
K	Paper Mill	06-096 CMR 129	Surface Coating Facilities	The facility does not operate units subject to this Rule.
L	Facility	06-096 CMR 131	Cutback Asphalt and Emulsified Asphalt	Verso Androscoggin does not have equipment for paving and maintenance of public roads and highways.

	<u>Source</u>	<u>Citation</u>	<u>Description</u>	<u>Basis for Determination</u>
M	Printing Presses	06-096 CMR 132	Graphic Arts – Rotogravure and Flexography	This Rule does not apply to the QC Printing Presses.
N	Gasoline Tank	06-096 CMR 133	Petroleum Liquid Transfer Vapor Recovery at Bulk Handling Gasoline Plants	Verso Androscoggin does not have or operate a bulk handling gasoline plant.
O	Paper Machines 1, 2, 3, 4, and 5	06-096 CMR 134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds (VOC-RACT)	Paper machines and the finishing converting areas are exempted in this rule.
P	Facility	06-096 CMR 145	NOx Control Program	Verso Androscoggin is in the NOx waiver area.
Q	Facility	06-096 CMR 152	Control of Emissions of Volatile Organic Compounds from Consumer Products	Verso Androscoggin does not offer for sale consumer products with VOCs.
R	Power Boiler #3	40 CFR Part 60, Subpart D	Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971	Boiler #3 was installed in 1976, prior to the NSPS applicability date and has a federally enforceable fossil fuel firing rate limit.
S	Power Boilers #1 and #2	40 CFR Part 60, Subparts D, Da	Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971 and Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced After September 18, 1978	Boilers installed in 1965 and 1967, prior to the NSPS applicability date.
T	Recovery Boilers#1 and #2			The Recovery Boilers are not fossil fuel fired steam generating units and are not electric utility steam generating units.
U	Water Treatment Plant Main and Small Furnaces	40 CFR Part 60, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	The furnaces are each less than 10 MMBtu/hour and are thus not subject to this regulation.
V	Methanol Bulk Storage Tank	40 CFR Part 60, Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984	This tank's capacity is less than the threshold capacity for applicability of this Subpart.

	<u>Source</u>	<u>Citation</u>	<u>Description</u>	<u>Basis for Determination</u>
W	Recovery Boilers #1 and #2	40 CFR Part 60, Subpart BB	Standards of Performance or Kraft Pulp Mills	Facility commenced construction of applicable equipment before September 24, 1976. Recent equipment modifications have not exceeded 50% of the cost of construction of a new unit.
X	Lime Kilns A and B			
Y	Smelt Tanks #1 and #2			
Z	Digester Systems			
AA	Brown Stock Washer System			
BB	Multiple-Effect Evaporator Systems	40 CFR Part 60, Subpart BB	Standards of Performance for Kraft Pulp Mills	Facility commenced construction of applicable equipment before September 24, 1976. Recent equipment modifications have not exceeded 50% of the cost of construction of a new unit.
CC	Paper Machines 1, 2, 3, 4, and 5	40 CFR Part 60, Subpart BB	Standards of Performance for Kraft Pulp Mills	These paper machines do not qualify as affected facilities under this Subpart.
DD	Groundwood Mill	40 CFR Part 63	NESHAP Standards	Mechanical pulping is exempt from Subpart S and is not subject to any other MACT.
EE	Paper Machines 1, 2, 3, 4, and 5	40 CFR Part 63, Subpart S	NESHAPS for the Pulp and Paper Industry	There are no requirements applicable to these units.
FF	Paper Machines 1, 2, 3, 4, and 5	40 CFR Part 63, Subpart MM	NESHAPS for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills	There are no requirements applicable to these units.
GG	Methanol Tank	40 CFR Part 63, Subpart EEEE	NESHAPs: Organic Liquids Distribution (Non-Gasoline)	The methanol tank is not subject based on the EPA letter of December 14, 2004, stating that storage tanks associated with chlorine dioxide generation equipment are exempt.
HH	Paper Mill	40 CFR Part 63, Subpart JJJJ	NESHAPs: Paper and Other Web Coating	On-machine coating is considered substrate formation and not coating; thus, it is not subject to this regulation.
II	Paper Mill	40 CFR Part 63, Subpart HHHHH	NESHAPs: Miscellaneous Coating Manufacturing	
JJ	Recovery Boilers #1 and #2	40 CFR Part 63, Subpart DDDDD	NESHAPs for Industrial, Commercial, and Institutional Boilers and Process Heaters	Recovery Boilers are covered under 40 CFR 63, Subpart MM. [40 CFR Part 63, §63.7491(f)]

	<u>Source</u>	<u>Citation</u>	<u>Description</u>	<u>Basis for Determination</u>
KK	Gasoline Storage Tank	40 CFR Part 63, Subpart CCCCC	NESHAPs for Source Category: Gasoline Dispensing Facilities	This Subpart applies to area HAP sources; Verso Androscoggin is a major HAP source.
LL	Paper Machines 1, 2, 3, 4, and 5	40 CFR Part 64	Compliance Assurance Monitoring (CAM)	The paper machines do not satisfy the applicability requirements of 40 CFR §64.2.

(7) The Part 70 license shall be reopened for cause by the Department or by EPA, prior to the expiration of the Part 70 license, if:

- A. Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of three or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to 06-096 CMR 140;
- B. Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;
- C. The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or
- D. The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements. Verso Androscoggin shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.

[06-096 CMR 140]

(8) No license revision or amendment shall be required under any approved economic incentives, marketable licenses, emissions trading, and other similar programs or processes for changes that are provided for in the Part 70 license.
[06-096 CMR 140]

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to Verso Androscoggin's premises during business hours or any time

- during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions and this license (38 M.R.S.A. §347-C).
- (2) Verso Androscoggin shall acquire a new or amended air emission license prior to commencing construction of a modification, as defined in 06-096 CMR 100, unless specifically provided for in 06-096 CMR 140. [06-096 CMR 140]
 - (3) Verso Androscoggin shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 140] **Enforceable by State-only**
 - (4) Verso Androscoggin shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S.A. §353-A.
 - (5) Verso Androscoggin shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 140] **Enforceable by State-only**
 - (6) Verso Androscoggin shall retain records of all required monitoring data and support information for a period of at least six years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written request or in accordance with other provisions of this license. [06-096 CMR 140]
 - (7) Verso Androscoggin shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, the filing of an appeal by Verso Androscoggin, the notification of planned changes or anticipated noncompliance by Verso Androscoggin, or the filing of an application by Verso Androscoggin for the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license. [06-096 CMR 140]
 - (8) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, Verso Androscoggin shall:

- A. Perform emissions testing under circumstances representative of the facility's normal process and operating conditions:
 - 1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring, or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions;
 - 2. To demonstrate compliance with the applicable emission standards; or
 - 3. Pursuant to any other requirement of this license to perform emissions testing.
- B. Install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emissions testing; and
- C. Submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 140] **Enforceable by State-only**

- (9) If the results of an emissions test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:
 - A. Within thirty (30) days following receipt of such test results, Verso Androscoggin shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - B. The days of violation shall be presumed to include the date of emissions test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. Verso Androscoggin may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 140] **Enforceable by State-only**

(10) Verso Androscoggin shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.

A. Verso Androscoggin shall notify the Commissioner within 48 hours of a violation of any emission standard and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;

B. Verso Androscoggin shall submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.

Pursuant to 38 M.R.S.A. §349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs during start-up or shutdown or results exclusively from an unavoidable malfunction entirely beyond the control of Verso Androscoggin and Verso Androscoggin has taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design, or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on Verso Androscoggin seeking the exemption under this subsection.

C. All other deviations shall be reported to the Department in the facility's semiannual report. [06-096 CMR 140]

(11) Upon the written request of the Department, Verso Androscoggin shall establish and maintain such records, make such reports, install, use, and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine Verso Androscoggin's compliance status. [06-096 CMR 140]

(12) Verso Androscoggin shall submit semiannual reports of any required periodic monitoring. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. [06-096 CMR 140]

(13) Verso Androscoggin shall submit a compliance certification to the Department and EPA at least annually, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:

- A. The identification of each term or condition of the Part 70 license that is the basis of the certification;
- B. The compliance status;
- C. Whether compliance was continuous or intermittent;
- D. The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
- E. Such other facts as the Department may require in determining the compliance status of the source.

[06-096 CMR 140]

SPECIFIC CONDITIONS

(14) Facility Fuel Limitations

A. #6 Fuel Oil [38 MRSA §603-A(2)(A)(1)and (2)]

- 1. Prior to January 1, 2018, or the date specified in 38 MRSA §603-A(2)(A)(1), the sulfur content of the #6 fuel oil fired at this facility shall not exceed 2.0% by weight, unless restricted to a lower sulfur content limit for a specific fuel burning unit.
- 2. Beginning January 1, 2018, or the date specified in 38 MRSA §603-A(2)(A)(1), the #6 fuel oil delivered on-site shall not exceed a maximum sulfur content limit of 0.5% by weight.

B. Distillate Fuel

- 1. Prior to July 1, 2016, or the date specified in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired shall be ASTM D396 compliant distillate fuel (maximum sulfur content of 0.5% by weight). [06-096 CMR 140, BPT]
- 2. Beginning July 1, 2016, or the date specified in 38 MRSA §603-A(2)(A)(3), the distillate fuel delivered on-site shall not exceed a maximum sulfur content limit of 0.005% by weight (50 ppm). [38 MRSA §603-A(2)(A)(3)(a)]
- 3. Beginning January 1, 2018, or the date specified in 38 MRSA §603-A(2)(A)(1), the distillate fuel delivered on-site shall not exceed a maximum sulfur content limit of 0.0015% by weight (15 ppm). [38 MRSA §603-A(2)(A)(3)(b)]

C. Fuel Oil Sulfur Content Compliance [06-096 CMR 140, BPT]

Fuel sulfur content compliance shall be demonstrated by fuel oil analysis of the bulk fuel oil storage tanks if the fuel is blended on-site, or by fuel delivery

receipts if the maximum sulfur content delivered is at or below the sulfur content limits listed above. For distillate fuel, compliance will be demonstrated based on purchasing receipts documenting ASTM D396 compliant distillate fuel or fuel receipts documenting ULS fuel (ultra-low sulfur fuel, i.e., fuel with sulfur content no greater than 15 ppm by weight).

(15) Power Boilers #1 and #2 (680 MMBtu/hour each)

A. Fuels

1. Until January 1, 2018, Power Boilers #1 and #2 are licensed to fire #6 fuel oil, distillate fuel, and used oil, with the maximum oil sulfur content not to exceed 0.7% by weight. As of January 1, 2018, the fuel oil sulfur content shall not exceed 0.5% by weight. [A-203-77-11-M (November 2, 2010), BART; and 30 M.R.S.A. §603-A]
2. The distillate fuel fired in Power Boilers #1 and #2 shall comply with the fuel sulfur contents and corresponding dates as specified in Specific Condition (14) of this license.

B. Firing Rates [A-203-70-A-I (January 12, 2005), BPT]

1. Power Boiler #1 shall not exceed a heat input rate of 680 MMBtu/hour on a three-hour block average basis demonstrated by the fuel oil firing rates.
2. Power Boiler #2 shall not exceed a heat input rate of 680 MMBtu/hour on a three-hour block average basis demonstrated by the fuel oil firing rates.
3. Total combined heat input to Power Boilers #1 and #2 shall not exceed 1160 MMBtu/hour on a three-hour block average basis, demonstrated by the sum of the fuel oil firing rates for Power Boilers #1 and #2.

C. Annual Capacity Factor Limit

Power Boiler #1 and Power Boiler #2 shall operate with a combined 10% annual capacity factor limit, equivalent to a combined total fuel use limit of 7,942,400 gallons/year fuel oil. Records documenting compliance with the annual average capacity factor limit shall be kept on a calendar year basis. [A-203-77-17-A (October 31, 2012) and A-7-203-70-P-A (May 13, 2013)]

D. Sulfur Content Compliance

Sulfur content compliance shall be demonstrated by fuel oil analysis of the bulk fuel oil storage tanks if the fuel is blended on-site or by fuel delivery receipts if the maximum sulfur content delivered is at or below the sulfur content limits listed above. [06-096 CMR 140, BPT]

E. Emission Limits

Emissions from Power Boilers #1 and #2 shall not exceed the following limits. Unless otherwise specified, the averaging times for the emission limits in this table are based on the specified averaging time of the applicable test method for each pollutant.

<u>Pollutant</u>	<u>Origin and Authority</u>	<u>Emission Limits</u>
PM	06-096 CMR 103, §2.A(1) and 06-096 CMR 140, BPT	0.20 lb/MMBtu
	A-203-70-A-I (Jan. 12, 2005), BPT	232.0 lb/hr (combined emissions from Power Boilers #1 and #2)
PM ₁₀	A-203-70-A-I (Jan. 12, 2005), BPT	232.0 lb/hr (combined emissions from Power Boilers #1 and #2)
SO ₂	A-203-70-A-I (Jan. 12, 2005), BPT	996.43 lb/hr (combined emissions from Power Boilers #1 and #2)
NO _x	A-203-70-A-I (Jan. 12, 2005), BPT	0.447 lb/MMBtu, 1-hour block average basis per test method
		518.5 lb/hr
CO	A-203-70-A-I (Jan. 12, 2005), BPT	38.3 lb/hr
VOC	A-203-70-A-I (Jan. 12, 2005), BPT	11.6 lb/hr
Visible Emissions	06-096 CMR 101, §2(B)(1)(a)(i)	Individual Units: 30% opacity on a six-minute block average basis except for no more than two six-minute block averages in a three-hour period Combined Stack: 30% opacity on a six-minute block average basis, except for no more than three six-minute block averages in a three-hour period

F. Emission Limit Compliance Methods

Compliance with the emission limits associated with Power Boilers #1 and #2 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department. [06-096 CMR 140, BPT]

<u>Pollutant</u>	<u>Emission Limits</u>	<u>Compliance Method</u>	<u>Frequency</u>
PM	lb/MMBtu and lb/hour limits	40 CFR Part 60, App. A, Method 5	As requested
PM ₁₀	lb/hour limits	40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	
SO ₂	lb/MMBtu and lb/hour limits	40 CFR Part 60, App. A, Method 6	

<u>Pollutant</u>	<u>Emission Limits</u>	<u>Compliance Method</u>	<u>Frequency</u>
NO _x	lb/MMBtu and lb/hour limits	40 CFR Part 60, App. A, Method 7	As requested
CO	lb/hour limits	40 CFR Part 60, App. A, Method 10	
VOC	lb/hour limits	40 CFR Part 60, App. A, Method 25 or 25A	
Visible Emissions	Limits for Individual Units and for Combined Stack	40 CFR Part 60, App. A, Method 9	

G. Periodic Monitoring

Periodic monitoring shall consist of recordkeeping which demonstrates fuel use and firing rates by Power Boiler #1 and Power Boiler #2 and delivery receipts or other records from the supplier indicating the percent sulfur by weight of the fuel oil.

H. Parameter Monitors

Verso Androscoggin shall monitor and record the fuel oil firing rate for each of Power Boilers #1 and #2, obtaining and recording one data point each 15-minute period. A valid hour of data includes at least three 15-minute periods of data, except for periods of startup, shutdown, or monitor system calibration and maintenance, when two data points may be valid. [A-203-70-A-I (January 12, 2005)]

- I. To satisfy NO_x RACT requirements, Verso Androscoggin shall meet the NO_x emission limit of 0.447 lb/MMBtu on a one-hour block average basis demonstrated using stack testing methods and continue to use low-NO_x burners in Power Boilers #1 and #2. [A-203-70-P-A (May 13, 2013)]

J. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

1. By January 31, 2016, or no later than the date established per a request for a compliance date extension made in accordance with 40 CFR §63.6(i), Verso shall comply with all requirements of 40 CFR Part 63, Subpart DDDDD as applicable to Power Boilers #1 and #2. [40 CFR §63.7495(b)]

Note that if the status of the Final Rule (Boiler MACT Final Rule of January 31, 2013) should change, the compliance date may also change.

2. The facility shall complete an initial tune-up of Power Boilers #1 and #2 following the procedures described in §63.7540(a)(10)(i) through (vi) no later than January 31, 2016, or when the power boilers actually run after January 31, 2016. [40 CFR §63.7510(e)]
3. Subsequent tune-ups must be conducted every five years if the boilers operate, and as specified in §63.7540. [40 CFR §63.7510(e)]

(16) Boiler #3

A. Fuels

Boiler #3 is licensed to fire a combination of fuels including biomass, oil, and natural gas. Biomass shall include de-watered pulp and paper wastewater treatment plant sludge residuals, wood (including bark, sawdust, knots and screenings, etc.), cotton residue, sawdust absorbed with oil, and waste papers. Oil shall include #6 fuel oil, distillate fuel oil, specification used oil, off-specification used oil, oily rags and oil soaked absorbent pigs, etc. All oil is limited to a maximum sulfur content of 1.8% by weight.

Oily rags and oil soaked absorbent pigs generated on-site in maintenance and/or clean-up activities may be disposed of by incineration in Boiler #3, in accordance with the applicable requirements of 40 CFR Part 279, *Standards for the Management of Used Oil*.

The sulfur content of fuel oil fired in Boiler #3 shall be documented by purchase records from the supplier or by test results performed on a representative sample of onsite-generated specification or off-specification used oil, both within the accuracy of the test methods used. [A-203-70-A-I (January 12, 2005)]

B. Firing Rates

1. Boiler #3 shall not exceed a total heat input rate of 480 MMBtu/hour on a 24-hour block average basis demonstrated by a steam production limit of 317,000 lb/hour at 900 psig on a daily average. [A-203-70-A-I (January 12, 2005)]
2. Boiler #3 shall not exceed a heat input rate of 240 MMBtu/hour from the firing of fuel oil and/or natural gas. This limit shall be demonstrated by the following:
 - a. Continuously monitoring and recording the rate (in gallons per minute) at which oil is fed to Boiler #3. [A-203-70-A-I (January 12, 2005)]
 - b. Continuously monitoring the natural gas flow rate whenever natural gas is fired in this unit. [A-203-77-18-A (February 14, 2013)]

C. Emission Limits

Emissions from Boiler #3 shall not exceed the following limits. Unless otherwise specified, the averaging times for the emission limits in this table are based on the specified averaging time of the applicable test method for each pollutant.

Pollutant	Emission Limits	Origin and Authority
PM	0.10 lb/MMBtu; and the applicable limit in Table 2 of Subpart DDDDD in lb/MMBtu (except during startup/shutdown), as of the 40 CFR Part 63, Subpart DDDDD compliance date	A-203-70-A-I (January 12, 2005), BPT and 40 CFR Part 63, Subpart DDDDD, Table 2
	48.0 lb/hr	
PM ₁₀	48.0 lb/hr	A-203-70-A-I (January 12, 2005), BPT
SO ₂	0.8 lb/MMBtu, 3-hr rolling average basis	
	384.0 lb/hr, 3-hr rolling average basis	
NO _x	0.40 lb/MMBtu, 24-hr block average basis	06-096 CMR 138 (4)(3)
	192.0 lb/hr	A-203-70-A-I (January 12, 2005), BPT
CO	The CO emission limits from Table 2 of Subpart DDDDD, as applicable, as of the 40 CFR Part 63, Subpart DDDDD compliance date	40 CFR Part 63, Subpart DDDDD, Table 2
CO	1200.0 lb/hr	A-203-70-A-I (January 12, 2005), BPT
VOC	140.2 lb/hr	A-203-70-A-I (January 12, 2005), BPT
Visible Emissions	30% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hour period	06-096 CMR 101, §2(B)(1)(a)(i)
HCl	The applicable lb/MMBtu limit from Table 2 of Subpart DDDDD (except during startup and shutdown), as of the 40 CFR Part 63, Subpart DDDDD compliance date	40 CFR Part 63, Subpart DDDDD, Table 2
Hg	The applicable lb/MMBtu limit from Table 2 of Subpart DDDDD (except during startup and shutdown), as of the 40 CFR Part 63, Subpart DDDDD compliance date	

D. Emission Limit Compliance Methods

Compliance with the emission limits associated with Boiler #3 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

Pollutant	Emission Limit	Compliance Method	Frequency
PM, PM ₁₀	lb/MMBtu and lb/hr limits	Emissions Testing according to 40 CFR Part 60, Appendix A, Method 5	Annually, or otherwise in accordance with 40 CFR Part 63, Subpart DDDDD *

<u>Pollutant</u>	<u>Emission Limit</u>	<u>Compliance Method</u>	<u>Frequency</u>
SO ₂	lb/MMBtu limit	CEMS	Continuously
	lb/hr limit	Emissions Testing according to Applicable Method of 40 CFR Part 60, Appendix A	As requested
NO _x	lb/MMBtu limit	CEMS	Continuously
	lb/hr limit	Emissions Testing according to Applicable Method of 40 CFR Part 60, Appendix A	As requested
CO	ppmvd limit	Emissions Testing according to Applicable Method of 40 CFR Part 60, Appendix A; or CEMS if alternative monitoring is selected for Boiler MACT.	As requested if stack testing standard is chosen. <u>Annually</u> , or otherwise in accordance with 40 CFR Part 63, Subpart DDDDD *
	lb/hr limit	Emissions Testing according to Applicable Method of 40 CFR Part 60, Appendix A	As requested
VOC	lb/hr limit	Emissions Testing according to Applicable Method of 40 CFR Part 60, Appendix A	As requested
Visible Emissions	opacity limit	40 CFR Part 60, Appendix A, Method 9	As requested

* In accordance with 40 CFR §63.7515, if performance tests for a given pollutant for at least two consecutive years show emissions at or below 75% of the emission limit for that pollutant, and if there are no changes in operation of the boiler or air pollution control equipment that could increase emissions, Verso may opt to conduct performance testing every third year on this unit. Such option and conditions shall be in accordance with the requirements and specifications of 40 CFR §63.7515.

E. Periodic Monitoring

Periodic monitoring shall consist of regular, recurring recordkeeping of fuel use and firing rates in Boiler #3, records of the percent sulfur by weight of fuel oil from delivery receipts or other records from the supplier, and a metals analysis for used oil.

Verso Androscoggin shall monitor and record values for Boiler #3 and its associated air pollution control equipment as indicated in the following table whenever the equipment is operating.

<u>Parameter</u>	<u>Frequency</u>
Fuel Oil Firing Rate	Continuously* when firing this fuel
Total Primary and Secondary WWTP Sludge to Boiler #3	

<u>Parameter</u>	<u>Frequency</u>
Total Paper Pellets	Monthly
Total Biomass	Monitor steam continuously, back-calculate monthly
Natural Gas Firing Rate	Continuously*
Total Steam Production	

* For periodic monitoring purposes, *continuously* shall mean at least one data value recorded every 15 minutes. A valid hour of data includes at least three 15-minute periods of data, except for periods of startup, shutdown, or monitor system calibration and maintenance, for which two data points may be valid. Upon the applicability of Boiler MACT, scrubber monitoring will be in accordance to applicable requirements of 40 CFR §63.7525 and §63.8.

F. Parameter Monitors

Verso Androscoggin shall monitor and record parameters for Boiler #3 and its associated Venturi scrubber as indicated in the following table whenever the equipment is operating.

<u>Parameter</u>	<u>Frequency</u>
Scrubber Differential Pressure	Continuously*
Scrubbing Fluid Flow Rate	
Scrubbing liquid pH (if HCl compliance is demonstrated through emissions testing)	
Boiler O ₂ (if CO compliance is demonstrated through the emissions testing alternative)	Continuously*

* For parameter monitoring purposes, *continuously* shall mean at least one data value recorded every 15 minutes. Monitoring shall be consistent with 40 CFR Part 63, Subpart DDDDD.

G. CEMS

For Boiler #3, the following are required continuous emission monitoring systems (CEMS):

<u>Pollutant/ Continuous Monitor</u>	<u>Units of Measurement</u>	<u>Origin and Authority</u>
SO ₂	lb/MMBtu	06-096 CMR 117 and 140, BPT
NO _x	lb/MMBtu	06-096 CMR 138 and 117
O ₂	ppm or %	06-096 CMR 117, 138, and 140; BPT

H. NESHAPs 40 CFR Part 63, Subpart DDDDD (Boiler MACT)

Upon the compliance date applicable to this unit, Boiler #3 shall be in compliance with applicable requirements of 40 CFR Part 63, Subpart

DDDDD. The compliance date may change if the Final Rule changes. [40 CFR §63.7495(e)] These applicable requirements include the following:

1. Emission Limits [40 CFR Part 63, Subpart DDDDD Table 2]

Boiler #3 shall comply with the applicable emission limits for specific pollutants in 40 CFR Part 63, Subpart DDDDD, Table 2. [40 CFR §63.7505(a)]

The Subpart DDDDD emission limits shall apply at all times the affected unit is operating, except during periods of startup and shutdown, during which the source must comply only with applicable requirements of 40 CFR Part 63, Subpart DDDDD, Table 3. [40 CFR Part 63, Subpart DDDDD, §63.7500(f)]

2. In accordance with 40 CFR Part 63, Subpart DDDDD and for the purposes of the standards and requirements pursuant to Subpart DDDDD, the definitions of *startup* and *shutdown* are as defined in 40 CFR Part 63, §63.7575, or as modified in subsequent rule-making.

3. Work Practice Standards and Operating Limits [40 CFR Part 63, Subpart DDDDD, Tables 3, 4, and 8]

a. Verso Androscoggin shall conduct an initial tune-up of Boiler #3 according to the procedures specified in §63.7540 no later than the initial tune-up due date established per 40 CFR §63.7495 or per a compliance extension.

b. Subsequent tune-ups must be conducted at the frequency specified by Subpart DDDDD and as specified in §63.7540. [40 CFR §63.7510(e)]

4. Performance testing for filterable PM (or TSM), HCl, Hg, and CO shall be conducted according to the specifics contained in Table 5 of 40 CFR Part 63, Subpart DDDDD, as applicable. Performance testing for CO (ppmdv limit compliance) will not be required if the boiler becomes equipped with a CO CEMS. Performance testing will not be required for HCl or Hg if the fuel analysis alternative in Subpart DDDDD is used.

The 30-day rolling average operating load of Boiler #3 shall be maintained such that it does not exceed 110% of the highest hourly average operating load recorded during the most recent performance test. [40 CFR Part 63, Subpart DDDDD, Table 4]

5. Reporting requirements shall be in accordance with the applicable requirements of Table 9 of Subpart DDDDD.

I. The wet scrubber shall operate at all times Boiler #3 is in operation. [A-203-70-A-I (January 12, 2005)] The wet scrubber is not required to be in

operation when only natural gas or other Subpart DDDDD clean fuels are being fired.

(17) **Recovery Boiler #1 and Recovery Boiler #2**

A. Fuels [A-203-70-A-I (January 12, 2005) and A-203-77-18-A (February 14, 2013)]

1. Recovery Boiler #1 and Recovery Boiler #2 are licensed to fire black liquor, natural gas, and fuel oil (including #6 fuel oil, specification waste oil, off-specification waste oil, and distillate fuel oil). The fuel oil fired is allowed to contain a maximum sulfur content of 0.5% by weight. Both the natural gas and the fuel oil may be used as startup/supplemental fuel.
2. The quantities of fuel oil, natural gas, and black liquor fired in each recovery boiler shall be monitored by fuel flow meters, with the exception of distillate fuel oil, which shall be monitored by the distillate oil storage tank level and calculations prorating quantities used to the boilers based on black liquor firing records.
3. The sulfur content of the fuel oil fired shall be demonstrated by purchase records from the supplier or by test results performed on a representative sample of onsite generated specification or off-specification used oil, both within the accuracy of the test methods used.

B. Firing Rates [A-203-70-A-I (January 12, 2005)] **Enforceable by State-only**

1. Recovery Boiler #1 shall not exceed a maximum firing rate of 2.50 MMlb dry BLS/day, on a 24-hour block average basis, demonstrated by documented black liquor firing rates.
2. Recovery Boiler #2 shall not exceed a maximum firing rate of 3.44 MMlb dry BLS/day, on a 24-hour block average basis, demonstrated by documented black liquor firing rates.

C. Emission Limits

Emissions from RB1 and RB2 shall not exceed the following limits. Unless otherwise specified, the averaging times for the emission limits in this table are based on the specified averaging time of the applicable test method for each pollutant.

Pollutant	<u>Emission Limits</u>		<u>Origin and Authority</u>
	<u>Emissions from Each Recovery Boiler</u>	<u>Combined Emissions, RB1 and RB2</u>	
PM	0.035 gr/dscf @ 8% O ₂	--	A-203-77-4-A (April 22, 2008) and A-203-77-14-A (March 12, 2012); BACT
	--	133.3 lb/hr	A-203-70-A-I (January 12, 2005), BPT

Pollutant	Emission Limits		Origin and Authority
	Emissions from Each Recovery Boiler	Combined Emissions, RB1 and RB2	
PM ₁₀	--	133.3 lb/hr	A-203-70-A-I (January 12, 2005), BPT
SO ₂	RB1: 120 ppm _{dv} , @ 8% O ₂ at black liquor firing rates of 50% capacity or higher; 140 ppm _v @ 8% O ₂ at black liquor firing rates of less than 50% capacity; 30-day rolling average basis ¹ RB2: 150 ppm _{dv} @ 8% O ₂ ; 30-day rolling average basis ¹	--	A-203-77-4-A (April 22, 2008) and A-203-77-14-A (March 12, 2012); BACT; BPT
	--	806.6 lb/hr on a 3-hour block avg. basis	A-203-70-A-I (January 12, 2005), BPT
NO _x	RB2: 206 ppm _{dv} @ 8% O ₂ ; 24-hour block average basis	--	06-096 CMR 138 (3)(C)
	RB1: 150 ppm _{dv} , @ 8% O ₂ , 24-hour block average basis	--	A-203-77-4-A (April 22, 2008) and A-203-77-14-A (March 12, 2012); BACT
	--	213.3 lb/hr, 24-hour block average basis	A-203-70-A-I (January 12, 2005), BPT
CO	--	266.6 lb/hr, 1-hour basis	A-203-70-A-I (January 12, 2005), BPT
VOC	--	22.3 lb/hr, 1-hour basis	A-203-70-A-I (January 12, 2005), BPT
TRS ²	5 ppm _{dv} @ 8% O ₂ (measured as H ₂ S), 12-hour block average basis	--	06-096 CMR 124 and A-203-77-4-A (April 22, 2008) and A-203-77-14-A (March 12, 2012); BACT

¹ When Recovery Boiler #1 or #2 is firing only fuel oil, the monitored SO₂ ppm_v emissions during that period shall not be included in determining the 30-day rolling average SO₂ ppm_v emission rate, for that boiler firing oil. [A-203-70-A-I (January 12, 2005)]

² The first two 12-hour block averages in a quarter which exceed the TRS license limit above shall not be considered a violation of 06-096 CMR 124. [06-096 CMR 124]

Visible Emissions

Visible emissions from the recovery boilers' common stack shall not exceed 30% opacity recorded as six-minute block averages, except for no more than three six-minute block averages in a three-hour period. [06-096 CMR 101 (2)(B)(5)]

Verso Androscoggin shall implement corrective action if monitoring shows an average of 10 consecutive six-minute averages greater than 20% opacity; and opacity must not be greater than 35% for 6% or more of the operating time in any operating quarter. [40 CFR Part 63, Subpart MM §63.864(k)]

D. Emission Limit Compliance Methods

Compliance with the emission limits for Recovery Boilers #1 and #2 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

Pollutant	Applicable Emission Limit	Compliance Method	Frequency
PM	gr/dscf and lb/hr limits (combined emissions from RB1 and RB2)	40 CFR Part 60, App. A, Method 5	Once every 5 calendar years
PM ₁₀	lb/hr limit (combined emissions from both RBs)	40 CFR Part 60, App. A, Method 5	As requested
SO ₂	ppmdv limits (individual units only)	SO ₂ CEMS	Continuously
	lb/hr limit (combined stack only)	SO ₂ CEMS on the shared stack	Continuously
NO _x	ppmdv limits	NO _x CEMS	Continuously
	lb/hr limits	Emissions Testing according to Applicable Method of 40 CFR Part 60, Appendix A	As requested
CO	lb/hr limits		As requested
VOC	lb/hr limits	Emissions Testing according to Applicable Method of 40 CFR Part 60, Appendix A	As requested
Visible Emissions	Opacity limit	COMS monitoring emissions from the common stack	Continuously
TRS	ppmdv limit	TRS CEMS	Continuously

E. Periodic Monitoring

Verso Androscoggin shall monitor and record parameters for Recovery Boilers #1 and #2 and the associated air pollution control equipment as indicated in the following table whenever the equipment is operating.

Parameter	Frequency
Fuel Oil Firing Rate	Continuously when this fuel is fired
Natural Gas Firing Rate	
Fuel Oil Sulfur Content	Whenever fuel is purchased or delivered
Black Liquor Solids Firing Rate	Continuously, record 24-hr average
Black Liquor Solids	Continuously when this fuel is fired

Verso Androscoggin shall comply with the ongoing compliance provisions of 40 CFR §63.864 (k).

F. CEMS and COMS

Verso Androscoggin shall maintain and operate the following continuous emission monitoring systems (CEMS) and continuous opacity monitoring systems (COMS) to monitor emissions from Recovery Boilers #1 and #2.

Pollutant/ Continuous Monitor	Location	Unit of Measurement	Origin and Authority
SO ₂	common stack	lb/hr	06-096 CMR 117
		ppm	
TRS	individual boiler ducts	ppm	06-096 CMR 117 and 124
O ₂		percent	
NO _x		ppm	06-096 CMR 138
Opacity	common stack	percent opacity	40 CFR Part 60, Subpart MM

G. Verso Androscoggin shall operate and maintain three differential pressure instruments on Recovery Boiler #1 to monitor performance and inform improvements in boiler cleaning performance. [A-203-77-14-A (March 12, 2012)]

H. NO_x RACT

Verso Androscoggin shall continue to comply with the following requirements identified in the NO_x RACT determination:

1. Operation of NO_x CEMS to meet the requirements of Chapter 117 on the breaching of each Recovery Boiler #1 and #2 to the common stack; and
2. Compliance with the NO_x CEMS monitored NO_x ppmv emission limit determined on a 24-hour block average basis (midnight to midnight).

[06-096 CMR 138, NO_x RACT and A-203-70-A-I (January 12, 2005)]

I. Control Equipment

1. Verso Androscoggin shall operate the Electrostatic Precipitator (ESP) to control emissions from Recovery Boiler #1 and Recovery Boiler #2 at all times that a recovery boiler is in operation and safety considerations of ESP operation have been met. The ESP need not operate when the Recovery Boilers are firing only oil and/or natural gas; however, Verso Androscoggin shall not be relieved of its obligation to meet its licensed opacity limits. [A-203-70-A-I (January 12, 2005)]

2. Verso Androscoggin shall operate, at a minimum, the number of ESP fields that operated during the unit's most recent demonstration of compliance with its licensed particulate emission limits. Upon written notification to the Department, and in accordance with the Bureau of Air Quality's Air Emission Compliance Test Protocol, Verso Androscoggin may perform additional particulate emission testing to demonstrate compliance with alternative operating scenarios; however, under no circumstances shall Verso Androscoggin be relieved of its obligation to meet its licensed emission limits. [A-203-70-A-I (January 12, 2005)]

J. Verso Androscoggin shall comply with the recordkeeping and reporting requirements of 40 CFR Part 63, Subpart MM and the general provisions of Subpart A for each Recovery Boiler #1 and #2. [40 CFR Part 63, Subpart MM]

(18) **Smelt Dissolving Tanks #1 and #2**

A. Control Equipment

1. Verso Androscoggin shall operate the wet scrubber systems to control emissions from the Smelt Dissolving Tanks #1 and #2 in accordance with Condition (5) of the Standard Conditions. [A-203-70-A-I (January 12, 2005)]
2. Verso Androscoggin shall inspect and replace the Smelt Dissolving Tanks' scrubber nozzles annually. [A-203-70-A-I (January 12, 2005)]

B. Emission Limits

Smelt Dissolving Tank #1 and Smelt Dissolving Tank #2 shall not exceed the following emission limits. Unless otherwise specified, the averaging times for the emission limits in this table are based on the specified averaging time of the applicable test method for each pollutant.

Pollutant	Emission Limits		Origin and Authority
	Smelt Dissolving Tank #1	Smelt Dissolving Tank #2	
PM	0.31 lb/ton BLS	0.13 lb/ton BLS	Established pursuant to 40 CFR Part 63, Subpart MM, §63.862(a)(1)(ii)
	13.7 lb/hour	11.7 lb/hour	A-203-70-A-I (January 12, 2005), BPT
PM ₁₀	13.7 lb/hour	11.2 lb/hour	A-203-70-A-I (January 12, 2005), BPT
SO ₂	2.7 lb/hour	3.9 lb/hour	A-203-70-A-I (January 12, 2005), BPT
Visible Emissions	20% opacity on a 6-minute block average basis, except for no more than one 6-minute block in any 1-hour period		06-069 CMR 101 (2)(B)(3)(d)

<u>Pollutant</u>	<u>Emission Limits</u>		<u>Origin and Authority</u>
	<u>Smelt Dissolving Tank #1</u>	<u>Smelt Dissolving Tank #2</u>	
TRS	0.033 lb/ton BLS (as H ₂ S) from each SDT, 1-hour basis		06-096 CMR 124 (3)(J)

C. Emission Limit Compliance Methods

Compliance with the emission limits associated with Smelt Dissolving Tanks #1 and #2 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

<u>Pollutant</u>	<u>Applicable Emission Limit</u>	<u>Compliance Method</u>	<u>Frequency</u>
PM	lb/ton BLS fired and lb/hour limits	Emissions testing in accordance with applicable method of 40 CFR Part 60, Appendix A	Once every five years
PM ₁₀	lb/hour limits		As requested
SO ₂	lb/hour limits	Emissions testing in accordance with applicable method of 40 CFR Part 60, Appendix A	As requested
TRS	lb/ton BLS (as H ₂ S) limit	Emissions testing in accordance with applicable method of 40 CFR Part 60, Appendix A	Once every two years
Visible Emissions	opacity limit	Emissions testing in accordance with 40 CFR Part 60, Method 9	As requested

D. Periodic Monitoring

For each scrubber, Verso Androscoggin shall record all scrubber by-pass incidents greater than five minutes in duration and report them in the quarterly report with reasons for each occurrence. [A-203-70-A-I (January 12, 2005)]

E. Parameter Monitors

Verso Androscoggin shall monitor and record the following parameters for the wet scrubbers on Smelt Dissolving Tanks #1 and #2 whenever the equipment is operating: [A-203-70-A-I (January 12, 2005)]

<u>Parameter</u>	<u>Frequency</u>
Scrubber media flow rate	Monitor continuously; record three-hour rolling average
Scrubber fan amperage	

Data shall be verified pursuant to 40 CFR Part 63.8(c)(3). The parameter ranges shall be determined or modified, if necessary, according to the procedures as specified in 40 CFR §63.864(j).

F. Recordkeeping

Verso Androscoggin shall comply with the recordkeeping and reporting requirements of 40 CFR Part 63, Subpart MM and the applicable provisions of Subpart A for each Smelt Dissolving Tank. [40 CFR Part 63, Subpart MM]

(19) **Lime Kilns A and B**

A. Fuels

1. Lime Kiln A and Lime Kiln B are licensed to fire fuel oil (including #6 fuel oil, distillate fuel, specification used oil, and off-specification used oil), propane, and natural gas. Fuel oil fired in each lime kiln is limited to 1.8% sulfur by weight. The lime kilns also incinerate non-condensable gases (NCGs) generated by the pulping process.
2. The combined total hours of which NCG gases are combusted in the A and B Lime Kilns without the presence of lime within either kiln shall not exceed 3000 hours per calendar year. [A-203-70-A-I (January 12, 2005)]
3. Verso Androscoggin shall maintain records of the amounts of each type of fuel fired in each lime kiln and the sulfur content of fuel oil fired. [A-203-77-13-A (January 19, 2012)]

B. Emission Limits

Emissions from Lime Kilns A and B shall not exceed the following limits. Unless otherwise specified, the averaging times for the emission limits in this table are based on the specified averaging time of the applicable test method for each pollutant.

<u>Pollutant</u>	<u>Emission Limits</u>		<u>Origin and Authority</u>
	<u>Lime Kiln A</u>	<u>Lime Kiln B</u>	
PM	0.05 gr/dscf @ 10% O ₂		A-203-77-17-A (October 31, 2012), BACT
	25.5 lb/hr	25.0 lb/hr	A-203-77-13-A (January 19, 2012), BACT
PM ₁₀	25.5 lb/hr	25.0 lb/hr	A-203-77-13-A (January 19, 2012), BACT
PM _{2.5}	25.5 lb/hr	25.0 lb/hr	
SO ₂ ¹	1.8% fuel sulfur content by weight		A-203-70-A-I (January 12, 2005), BPT
	6.7 lb/hr	6.7 lb/hr	A-203-77-13-A (January 19, 2012), BACT
	(loaded condition)	(loaded condition)	
	24 lb/hr	24 lb/hr	
	(no-load condition) ²	(no-load condition) ²	
NO _x	120 ppmv (wet) @ 10% O ₂ , 1-hour average	120 ppmv (wet) @ 10% O ₂ , 1-hour average	A-203-77-13-A (January 19, 2012), BACT

<u>Pollutant</u>	<u>Emission Limits</u>		<u>Origin and Authority</u>
	<u>Lime Kiln A</u>	<u>Lime Kiln B</u>	
NO _x	33.3 lb/hr	33.3 lb/hr	A-203-77-13-A (January 19, 2012), BACT
CO	200 lb/hr	200 lb/hr	
VOC	1.4 lb/hr	1.4 lb/hr	
Visible Emissions	20% opacity on a 6-minute block average basis, except for no more than one 6-minute block average in any 1-hour period		06-096 CMR 101 (2(B)(3)(d))
TRS ³	20 ppmv(dry) @ 10% O ₂ , measured as H ₂ S, 12-hour block average	20 ppmv(dry) @ 10% O ₂ , measured as H ₂ S, 12-hour block average	A-203-77-13-A (January 19, 2012), BACT

¹ The total combined annual SO₂ emissions from the “A” and “B” Lime Kilns shall not exceed 74.6 tons per year, which includes 3000 hours of SO₂ emissions at 24.0 lb/hr. [A-203-70-A-I (January 12, 2005)]

² *No-load condition* means the lime kiln is in operation when NCGs are being combusted in the kiln in the absence of lime, and the lime mud feed to the kilns has stopped without interruption for a period greater than one hour. [A-203-77-13-A (January 19, 2012)]

³ The first four 12-hour block averages in a quarter which exceed the TRS limit of this license are not a violation of Chapter 124. [06-096 CMR 124]

C. Emission Limit Compliance Methods

Compliance with the emission limits associated with Lime Kilns A and B shall be demonstrated in accordance with the methods and frequencies for each unit as indicated in the table below or other methods or frequencies as approved by the Department.

<u>Pollutant</u>	<u>Emission Limit</u>	<u>Compliance Method</u>	<u>Frequency</u>
PM	gr/dscf and lb/hr limits	Emissions testing in accordance with the applicable method of 40 CFR Part 60, Appendix A	Once every five years*
PM ₁₀	lb/hr limits		As requested
PM _{2.5}	lb/hr limits		
SO ₂	lb/hr limits	Emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 6	As requested
NO _x	ppmv (wet) and lb/hr limits	Emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 7E	Once every five calendar years**
CO	lb/hr limits	Emissions testing in accordance with the applicable method in 40 CFR Part 60, Appendix A	As requested

<u>Pollutant</u>	<u>Emission Limit</u>	<u>Compliance Method</u>	<u>Frequency</u>
VOC	lb/hr limits	Emissions testing in accordance with the applicable method in 40 CFR Part 60, Appendix A	As requested

* In accordance with 38 M.R.S.A. §589, §§2, if visible emissions, operating parameters, federal requirements, or other information indicates the source may be operating out of compliance, additional testing may be required upon request of the Department.

** If operating parameters, federal requirements, or other information indicates the source may be operating out of compliance, additional testing may be required upon request of the Department.

<u>Pollutant</u>	<u>Emission Limit</u>	<u>Compliance Method</u>	<u>Frequency</u>
TRS	ppm limit	CEMS – monitoring TRS concentration on a dry basis and % O ₂ by volume on a dry basis of emissions	Calculate and record daily: 12-hour block average TRS @ 10% O ₂ and O ₂ concentrations for the two consecutive periods of each operating day, determined as the arithmetic mean of the appropriate 12 contiguous, one-hour averages from the CEMS

D. Periodic Monitoring

Periodic monitoring shall consist of recordkeeping demonstrating fuel use and firing rates in Lime Kilns A and B and delivery receipts or other records from the fuel supplier indicating the percent sulfur by weight of fuel oil.

E. Parameter Monitors

1. Verso Androscoggin shall monitor and record parameters for Lime Kiln A and Lime Kiln B and their associated air pollution control equipment as indicated in the following table whenever the kilns are operating. Collected data shall be verified pursuant to 40 CFR §63.8(c)(3). The parameter ranges shall be determined, or modified as necessary, according to the procedures as specified in 40 CFR §63.864(j) and in accordance with 06-096 CMR 140.

This specified monitoring for Lime Kilns A and B fulfills the requirements for the CPMS for Subpart MM. [A-203-70-A-I (January 12, 2005)]

<u>Parameter</u>	<u>Frequency</u>
Pressure Drop across the Scrubber	Monitor continuously; record three-hour rolling average (Continuously is considered one data point every 15-minute period.)
Scrubbing Liquid Flow Rate, venturi section	
Scrubbing Liquid Flow Rate, quench section	
Mist Eliminator Section Flow Rate	

2. The monitoring devices used to satisfy the CPMS requirements of 40 CFR Part 63, Subpart MM shall meet the certification and accuracy requirements specified in 40 CFR Part 63, Subpart MM, §63.864(e)(10). [40 CFR Part 63, Subpart MM, §63.864(3)(10)]

F. CEMS and COMS

Verso Androscoggin shall operate and maintain the following continuous emission monitoring systems (CEMS) for Lime Kiln A and for Lime Kiln B.

Pollutant and Continuous Monitor	Unit of Measurement	Origin and Authority
TRS	ppm	06-096 CMR 117 and 124
O ₂	ppm or %	

G. Recordkeeping and Reporting

Verso Androscoggin shall comply with the recordkeeping and reporting requirements of 40 CFR Part 63, Subpart MM and the general provisions of Subpart A, as applicable to Lime Kilns A and B. [40 CFR Part 63, Subpart MM]

H. Tertiary Backup System

Verso Androscoggin operates a pre-kiln NCG line scrubber to allow for the combustion of NCG and TRS gases without the presence of lime mud within the kiln (referred to as the Tertiary Backup System for NCG and TRS control, or operating in tertiary mode). When the lime kiln is in no-load operation, the following shall apply:

1. SO₂ emissions from that kiln firing NCGs shall not exceed 24.0 lb/hour.
2. Verso Androscoggin shall maintain a record of the date and length of time, in minutes, when NCGs are combusted within Lime Kiln A and B without the presence of lime.
3. Verso Androscoggin shall continuously monitor and record either the pH or the conductivity of the lime kiln wet scrubbers.
4. The following monitoring and recordkeeping shall be performed when the Lime Kilns are operating in tertiary mode. Each identified alternate method of monitoring shall be employed only in the event the primary method becomes non-operational:

Parameter	Primary Monitoring Method	Alternate Monitoring Method
Temperature	Monitor Lime Kiln hood temperature	Monitor Lime Kiln discharge temperature

<u>Parameter</u>	<u>Primary Monitoring Method</u>	<u>Alternate Monitoring Method</u>
pH or Conductivity of Scrubbing Solution	a meter to continuously monitor and record the pH or conductivity of the scrubbing solution for each Lime Kiln wet scrubber	a grab sample analyzed for pH or conductivity of the Lime Kiln wet scrubber recorded in a log once when both the pH and the conductivity meter become non-operational and every 30 minutes thereafter

[06-096 CMR 140, BPT]

(20) Pulping Process Components

A. A Chip Bin and B Chip Bin

1. The A Chip Bin and all associated equipment of the A Chip Bin closed vent collection system shall be subject to all applicable requirements under 40 CFR Part 60, Subpart BB. [A-203-77-9-A (March 30, 2010)]
2. The A Chip Bin is configured to use fresh steam, flash steam from the A Digester, and clean condensate flash steam. The B Chip Bin is configured to use only fresh steam and clean condensate flash steam. As previously determined by the Department, clean condensate flash steam is considered equivalent to fresh steam; therefore, the clean condensate flash steam used in both the A and B Chip Bins is considered fresh steam for applicability determination purposes. [NSR License A-203-77-9-A, March 30, 2010]
3. During any period of time when the A Chip Bin is operating and not using fresh steam or its equivalent, the A Chip Bin and all associated equipment of the A Chip Bin closed vent collection system are considered to be part of the LVHC Source Group under 40 CFR Part 63, Subpart S and subject to all such applicable requirements. [A-203-77-16-M (September 27, 2012) and A-203-70-M-A (November 19, 2012)]
4. To determine compliance with the Subpart S one percent venting allowance for the A Chip Bin, Verso Androscoggin shall track the duration of A Chip Bin venting that occurs when flash steam is used in the A Chip Bin. (Venting that occurs when fresh steam or its equivalent is used does not need to be tracked.)

The Mill is not required to track venting from the B Chip Bin for determining compliance with Subpart S venting provisions, since that bin uses only fresh steam and is not subject to any of the Subpart S requirements.

[A-203-70-M-A (November 19, 2012)]

5. The A and B Chip Bins are exempt from the collection, treatment, and reporting requirements of 40 CFR Part 63, Subpart S provided Verso Androscoggin complies with the following: [40 CFR 63, Subpart S and A-203-70-M-A (November 19, 2012)]
 - a. Ensures fresh, non-process steam use on the chip bins;
 - b. Ensures fresh, non-process steam use on the low pressure feeder pocket purge;
 - c. Ensures wood chip level in the bin is high enough to condense/adsorb LVHC emissions.
6. Emissions from the A and B Chip Bins are not subject to the LVHC collection system requirements under 06-096 CMR 124. [A-203-77-9-A (March 30, 2010)]
7. Control Equipment [A-203-77-9-A (March 30, 2010), BACT]

Verso Androscoggin shall operate and maintain the following equipment for the purpose of collecting and treating emissions from the A Chip Bin during normal operating conditions (i.e., “full” Chip Bin conditions) whenever flash steam is being utilized:

- a. A white liquor scrubber for TRS reduction prior to combustion in the lime kilns, to be in use when the lime kiln is in a no-load scenario, and for minimizing TRS emissions at system vents located after the scrubber during A Chip Bin vents unless fresh steam is being used in the A Chip Bin during venting; and
 - b. A closed system designed to collect and treat the NCG emission stream from the A Chip Bin either by introduction into the flame zones of the A and B Lime Kilns or by operating the lime kilns in tertiary mode.
8. Operating Requirements [A-203-77-9-A (March 30, 2010), BACT]
 - a. Verso Androscoggin shall use fresh steam and/or clean (uncontaminated) condensate flash steam during “low/empty” chip bin conditions (i.e., startup, shutdown, and malfunction conditions) or during any malfunction resulting in venting from the A Chip Bin.
 - b. Verso Androscoggin shall use fresh steam and/or clean (uncontaminated) condensate flash steam during all B Chip Bin operating conditions.
 - c. The source of the clean condensate flash steam shall be the non-contact steam generated from the indirect black liquor heaters. The clean condensate flash steam shall be continuously monitored for conductivity as a measure of contamination. Conductivity readings of

10 micromhos ($\mu\Omega^{-1}$) or 10 microsiemens (μS) or greater shall be considered an indication that contamination has occurred and shall result in the immediate diversion of the contaminated condensate flash steam to the mill's wastewater treatment plant collection system.

B. A Flash Tank

Emissions from the A Flash Tank shall be collected and controlled through the existing LVHC Source group collection and control system. [A-203-77-9-A (March 30, 2010), BACT]

(21) HVLC Source Group: HVLC System

A. Verso Androscoggin shall collect and control high volume, low concentration (HVLC) gas streams containing non-condensable gases (NCGs), including both HAP and TRS compounds, as part of their HVLC system, in accordance with 40 CFR Part 63, Subpart S and 06-096 CMR 124.

B. The HVLC Source Group is comprised of the HVLC Collection System (the collection system, associated fans, wet scrubber and the Regenerative Thermal Oxidizer, the RTO), and several emission units which emit HVLC gases which shall be conveyed to the RTO for destruction. Emission units subject to the HVLC requirements of 40 CFR Part 63, Subpart S, include the A Brown Stock Washers, A #1 and #2 Seal Tanks, and the Oxygen Delignification System. Emission units subject to the HVLC requirements of 06-096 CMR 124 include the previously identified sources and the B Full Chip Bin, A Knotters (voluntary collection), and the Black Liquor Storage Tanks which consist of #1 and #2 Recovery Boiler Mix Tanks, West Precipitator Mix Tank, East Precipitator Mix Tank, East Economizer Mix Tank, the 52% Black Liquor Tank, the 63% Black Liquor Tank, the #1 Weak Black Liquor Tank, and the #2 Weak Black Liquor Tank. [A-203-70-A-I (January 12, 2005)]

C. The Regenerative Thermal Oxidizer (RTO) is licensed to fire the following supplemental fuels: propane, distillate fuel with sulfur content compliant with 38 MRSA §603-A(2)(A)(3) as specified in Specific Condition (14), and natural gas. Verso shall maintain records of the amounts of each type of fuel fired in the RTO. [A-203-77-13-A (January 19, 2012), BACT]

D. RTO Emission Limits

Emissions from the RTO shall not exceed the following limits. Unless otherwise specified, the averaging times for the emission limits in this table are based on the specified averaging time of the applicable test method for each pollutant.

<u>Pollutant</u>	<u>Emission Limits</u>	<u>Origin and Authority</u>
PM	1.0 lb/hr	A-203-71-M-A (July 31, 1995) and A-203-77-13-A (January 19, 2012); BACT
PM ₁₀	1.0 lb/hr	
PM _{2.5}	1.0 lb/hr	A-203-71-M-A (July 31, 1995) and A-203-77-13-A (January 19, 2012); BACT
SO ₂	0.3% by weight, fuel oil sulfur content	
	2.02 lb/hr	
NO _x	1.71 lb/hr	A-203-71-AC-A (October 15, 1996) and A-203-77-13-A (January 19, 2012); BACT
CO	1.2 lb/hr	A-203-71-M-A (July 31, 1995) and A-203-77-13-A (January 19, 2012); BACT
VOC	3.0 lb/hr	
TRS	0.2 lb/hr	

E. Emission Limit Compliance Method

Compliance with the emission limits associated with the RTO shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

<u>Pollutant</u>	<u>Compliance Method</u>	<u>Frequency</u>
PM	Emissions testing in accordance with the applicable Method of 40 CFR Part 60, Appendix A	As requested
PM ₁₀		
PM _{2.5}		
SO ₂		
NO _x		
CO		
VOC		
TRS		

F. Verso Androscoggin shall maintain a written preventative maintenance program for each respective TRS gas collection system in accordance with 06-096 CMR 124 (3)(G).

G. Periodic Monitoring [40 CFR Part 63, Subpart S and 06-096 CMR 140, BPT]

1. Periodic monitoring for the RTO shall consist of recordkeeping which demonstrates the following:
 - a. Monthly fuel use; and
 - b. Percent sulfur by weight of fuel oil fired in the RTO.

2. Periodic monitoring for the HVLC Source Group units subject to 40 CFR Part 63, Subpart S shall consist of recordkeeping which demonstrates the following:
 - a. Monthly visual leak inspections of the HVLC collection system, in accordance with the dates and methods of 40 CFR Part 63, Subpart S and as approved in an alternative monitoring plan approved by the EPA;
 - b. Annual negative pressure verifications at enclosure openings of the HVLC collection system, consistent with 40 CFR Part 63, Subpart S;
 - c. Annual positive pressure demonstrations at sections of the HVLC collection system under positive pressure, consistent with 40 CFR Part 63, Subpart S.

H. Parameter Monitors

The following operating parameters shall be monitored on the RTO [A-203-71-M-A (July 31, 1995) and A-203-70-A-I (January 12, 2005), BACT]:

Parameter	Frequency	
	Monitor	Record
Scrubbing media pH, recirc. flow	continuously	one data point every 15 minutes
RTO Combustion Temperature		

In accordance with 40 CFR §63.453(b), the Mill conducts continuous monitoring and recording of temperature in the firebox or in the ductwork immediately downstream of the firebox and before any substantial heat exchange occurs, as an indicator of compliance with the total HAP reduction standard. The RTO scrubber pH and recirculation flow values are based on the minimum values recorded during testing for SO₂ to establish an Assured Compliance Plan value. Additional performance tests may be used to establish or re-establish 40 CFR §63.443 compliance options and the values for the site-specific parameters. [40 CFR §63.453(n)(2)]

The continuous monitoring device to measure and record the combustion temperature in the RTO must be accurate to within $\pm 1\%$ of the temperature being measured and must achieve 95% uptime based on quarterly incineration time. [06-096 CMR 124 (4)(B)]

- I. Components of the HVLC Collection System subject to 40 CFR Part 63, Subpart S, §63.443 shall meet the standards for enclosure and closed-vent systems specified in 40 CFR §63.450. [40 CFR Part 63, Subpart S]

J. Exemptions from Collection Requirements

1. The knotter and screen systems and decker systems are exempt from HAP Control under MACT I Phase II requirements. [40 CFR 63, Subpart S]
2. The Strong Black Liquor Tank, the 68% Heavy Black Liquor Tank, and the #3 and #4 Weak Black Liquor Tanks are not required to be collected under 06-096 CMR Chapter 124 [06-096 CMR 124, BPT]

K. Uptime and Continuous Monitoring System Requirements

1. Verso Androscoggin's HVLC system shall maintain a 96% collection and control uptime, based on the time of vents divided by the total process operating time in a semi-annual reporting period for the following sources:
 - a. A Pulp Mill #1 and #2 Brown-stock Washer Hood Vents;
 - b. A Pulp Mill #1 and #2 Brown-stock Washer Seal (Weak Liquor Filtrate) Tank Vents;
 - c. O₂ Delignification Drum Washer Hood Vent;
 - d. O₂ Delignification Drum Washer Seal (Filtrate Tank) Vent;
 - e. O₂ Delignification O₂ Tower Vent;
 - f. O₂ Delignification System;
 - g. A Pulp Mill Combined Source Condenser Vent/Bypass Vent (for sources subject to the HVLC requirements of 40 CFR Part 63, Subpart S); and
 - h. Main RTO Bypass Vent, when the A Pulp Mill sources are in operation.[40 CFR 63 Subpart S]
2. Verso Androscoggin shall operate and maintain, according to the manufacturer's specifications, a continuous monitoring system (CMS) to determine HVLC system vent time and RTO combustion temperature. The CMS shall include a continuous recorder. [40 CFR 63 Subpart S]
3. Under 06-096 CMR 124, Verso Androscoggin's HVLC system shall maintain a 96% collection and control uptime with no start-up, shut-down, or malfunction allowance, based on quarterly system operating time on a total mass weighted basis for the following sources:
 - a. A Pulp Mill Combined Source Condenser Vent/Bypass Vent;
 - b. A Pulp Mill #1 BSW Seal Tank (Filtrate Tank) Vent;
 - c. Power House Combined Source Vent;
 - d. #1 and #2 Weak Black Liquor Tank Vents;
 - e. Main RTO Inlet Bypass Vent for 06-096 CMR 124 sources; and
 - f. B Chip Bin high level vents.[A-203-70-B-A (September 29, 2006)]

Note: Collection and control uptime of the individual vent points identified in K.1. above are also monitored by the Mill's programming

for compliance with 06-096 CMR 124 collection and control uptime requirements.

4. Sources that may be collected but will not count towards 06-096 CMR 124 downtime or MACT HVLC are:
 - a. No. 1 Secondary Knotter; and,
 - b. The Parshall Flume.[A-203-70-B-A (September 29, 2006)]
5. Verso Androscoggin shall report to the Department on the next State working day any venting of TRS to the atmosphere from the HVLC collection system with duration longer than four hours. [06-096 CMR 124 (5)(B)(2)]
6. Verso Androscoggin shall submit to the Department quarterly reports which identify all ventings of TRS from the HVLC system greater than one minute in duration when the sum of all venting occurrences is greater than 4% of the quarterly brownstock washer operating time on a total mass weighted basis for each line. [06-096 CMR 124 (5)(C)(8)]
7. Any timeframe during which venting occurs shall be counted as one minute of venting for any minute that either an individual source or header comprised of multiple sources in the combined header are venting. There can be no more than 1440 minutes of vent time in a day. [A-203-70-B-A (September 29, 2006)]

(22) LVHC Source Group

- A. Verso Androscoggin shall collect and incinerate all gases from the emission units that comprise the LVHC Source Group in Lime Kiln A or Lime Kiln B, in accordance with 06-096 CMR 124 and 40 CFR Part 63, Subpart S. Incineration of LVHC gases in either Lime Kiln in the presence of lime mud shall constitute Verso Androscoggin's primary strategy for control of TRS. Each Lime Kiln serves as the back-up incineration device for the other.

Incineration of LVHC gases in the Lime Kilns without the presence of lime mud shall constitute Verso Androscoggin's Tertiary Control Method for the destruction of LVHC gases in one or both Lime Kilns. Verso Androscoggin shall employ the Tertiary Control Strategy no later than 40 minutes after the primary system malfunctions or shuts down. [A-203-70-A-I (January 12, 2005)]

B. Periodic Monitoring

Verso Androscoggin shall conduct periodic monitoring of the closed collection system to meet the requirements of 40 CFR, Part 63, Subpart S, §63.450, which include the following: [40 CFR Part 63, Subpart S]

<u>Item to be Evaluated</u>	<u>Monitor and Record</u>
LVHC collection system piping visual leak detection, as approved in the alternative monitoring plan	Monthly
LVHC collection system positive pressure demonstration (for those sections of the LVHC collection system under positive pressure)	Annually

C. Components of the LVHC Collection System subject to 40 CFR Part 63, Subpart S, §63.443 shall meet the standards for enclosure and closed-vent systems specified in 40 CFR §63.450. [40 CFR Part 63, Subpart S]

D. LVHC System Recordkeeping and Reporting

1. The applicable systems shall comply with the recordkeeping and reporting requirements of 40 CFR Part 63, Subpart S and of 06-096 CMR 124.
2. Verso Androscoggin shall not allow venting of TRS from the LVHC system or associated equipment required to be controlled which exceeds 40 minutes in duration; or contributes to an aggregate TRS venting of more than 1.0% of quarterly operating time. [06-096 CMR 124 (3)(C)]
3. Any timeframe during which venting occurs shall be counted as one minute of venting for any minute that either an individual source or a header comprised of multiple sources is venting. There can be no more than 1440 minutes of LVHC System-related vent time in a day.
4. If the venting allowance exceeds the 1% vent allowance, then such an excess emissions event shall be counted as one event against both Subpart S and Chapter 124 requirements and not as separate incidents (for the same event minute) against both requirements.

[A-203-70-B-A (September 29, 2006)]

5. Verso Androscoggin shall report to the Department no later than the next State working day any venting of TRS to the atmosphere from the LVHC collection system of longer than 15 minutes, or in accordance with 06-096 CMR 124 if amended. [06-096 CMR 124]
6. Verso Androscoggin shall submit to the Department quarterly reports which identify the following: [06-096 CMR 124 (5)(C)(5), (6), and (7)]

- a. All ventings of TRS from the LVHC system or associated equipment that exceeds 40 minutes in duration;
 - b. All venting of TRS from the LVHC system or associated equipment for greater than one minute which contributes to an aggregate TRS venting of more than 1% of quarterly operating time; and
 - c. All venting of TRS from the LVHC system or associated equipment for greater than 15 minutes when the aggregate TRS venting exceeds 0.5% of quarterly operating time. For each event, an explanation shall be included of the cause of the event and action taken to prevent similar events from occurring in the future.
7. Periods of LVHC excess emissions reported under 40 CFR §63.455 shall not be a violation of 40 CFR §63.443 (c) and (d) provided that the time of excess emissions divided by the total process operating time in a semi-annual reporting period does not exceed one percent. [40 CFR Part 63, Subpart S]
 8. Verso Androscoggin shall maintain a written preventative maintenance program for each respective TRS gas collection system in accordance with 06-096 CMR 124 (3)(G).
- E. Verso Androscoggin may use hog ejectors to start the A and B Evaporators. Verso Androscoggin shall report in their quarterly report the dates and duration if the hog ejectors are used. [A-203-70-A-I (January 12, 2005)]

(23) Condensates Source Group

Verso Androscoggin shall collect pulping process condensates that contain a total HAP mass of 11.1 pounds per ton of oven-dry pulp or greater on a 15-day rolling average basis. Verso Androscoggin shall comply with all applicable monitoring, recording and reporting requirements as described in 40 CFR Part 63, Subpart S. [40 CFR Part 63, §63.446(c)]

Verso Androscoggin shall conduct annual leak detection inspections of the Condensates Collection Tank and positive pressure demonstrations for the Condensates Collection Tank, in accordance with 40 CFR Part 63, Subpart S.

(24) Clean Condensate Alternative

A. MACT Credits Calculation

Verso Androscoggin shall calculate MACT credits for the Clean Condensate Alternative (CCA) by measuring the methanol over-collection beyond MACT I, Phase I requirements. Credits shall be calculated in lbs/day from the

daily emissions reductions achieved by routing the over-collected condensates through the existing Hard Pipe System and not through the open primary clarifier. The facility will subtract the MACT I, Phase I required methanol collection in lb/ODTP from the total measured daily methanol collection entering the Hard Pipe to determine the over-collection of methanol that can be applied in the MACT I, Phase II CCA credit calculations. The over-collected methanol in lb/ODTP shall be multiplied by the facility's daily pulp production in ODTP/day and the primary clarifier atmospheric methanol emissions rate determined by EPA's WATER9 methanol emissions model, to calculate the daily CCA emission reduction credit in lb methanol/day.

$$\begin{aligned} & [\text{Over-collection (lb methanol /ODTP)}] \\ & \times [\text{mill pulp production (ODTP/day)}] \\ & \times [\text{\% volatilization, from WATER9 method}] \\ & = [\text{emissions reduction credits accrued per day (lb methanol)}] \end{aligned}$$

B. MACT Debits Calculation

Verso Androscoggin shall calculate MACT debits for the Clean Condensate Alternative by summing the methanol emissions from the B-Diffusion Washer System vents. Methanol emissions from the B-Diffusion Washer shall be calculated by multiplying the B-Digester daily production by the B-Diffusion Washer System emission factor in lb methanol/ODTP, as established in 2003 during HAP testing.

B-Diffusion Washer System Methanol Calculation Method

$$\begin{aligned} & [\text{lb/ODTP factor}] \\ & \times [\text{B pulp production (ODTP/day)}] \\ & = [\text{B-Diffusion Washer System Emissions (lb/day methanol)}] \end{aligned}$$

C. Clean Condensate Alternative Total HAP Emission Reduction

Verso Androscoggin shall calculate the total HAP emission reduction from the CCA by comparing the 15-day rolling average MACT Credits and the 15-day rolling average MACT Debits which accrue from the B-Diffusion Washer System. To demonstrate compliance with the MACT standards of 40 CFR §§63.443(a)(1)(ii) through (a)(1)(v), Verso Androscoggin shall demonstrate that total HAP emissions reductions achieved by the CCA 40 CFR §63.447 are equal or greater than total HAP emission reductions which would have been achieved by compliance with 40 CFR §§63.443(a)(1)(ii) through (v).

D. The Clean Condensate Alternative shall meet all the requirements of 40 CFR §§63.447(a) through (h).

[40 CFR 63 Subpart S, A-203-70-B-A (September 29, 2006)]

(25) Bleach Plant Source Group

A. Verso Androscoggin shall operate the bleach plant scrubbers to control Cl_2 and ClO_2 emissions from the Bleach Plants A and B whenever the associated bleach plant is in operation and in accordance with Standard Condition (5) of this License and the following:

1. Verso Androscoggin shall control emissions from Bleach Plant A utilizing one or both Bleach Plant A scrubbers (either the Cl_2 Scrubber or the ClO_2 Scrubber operating alone, or both operating concurrently).
2. Verso Androscoggin shall control emissions from Bleach Plant B utilizing the Cl_2 Scrubber (the second scrubber in the Bleach Plant B scrubbing system) or both the Cl_2 Scrubber and the ClO_2 Scrubber in the Bleach Plant B scrubbing system.
3. Verso Androscoggin is not required to collect parameter monitoring data on the scrubber that is not in operation.

[A-203-70-A-I (January 12, 2005)]

B. Total Cl_2 emissions from the Bleach Plant Source Group shall not exceed 3.0 lb/hour and 13.1 tons/year. [A-203-70-A-I (January 12, 2005), BPT]

Total ClO_2 emissions from the Bleach Plant Source Group shall not exceed 3.0 lb/hour and 13.1 tons/year. [A-203-70-A-I (January 12, 2005), BPT]

C. Compliance with the Cl_2 and ClO_2 lb/hour emission limits shall be demonstrated by stack testing performed once every five years and upon the request of the Department. [A-203-70-H-A (July 12, 2010)]

D. For the sources within each Bleach Plant Scrubbing System which are MACT-applicable, chlorinated HAP emissions (not including chloroform) shall be controlled in compliance with the following:

1. Reduce the total chlorinated HAP mass in the vent stream entering the control device by 99% or more by weight;
2. Achieve a treatment device outlet concentration of 10 ppm or less by volume of total chlorinated HAP; or
3. Achieve a treatment device outlet mass emission rate of 0.002 pounds of total chlorinated HAP per ton of oven-dried pulp (ODP).

[40 CFR Part 63, Subpart S, §63.445 (c)]

- E. Verso Androscoggin shall use no hypochlorite or chlorine for bleaching in the bleaching system or pulp line. [40 CFR Part 63, Subpart S, §63.445 (d)(2)]
- F. Components of the Bleach Plant Source Group subject to 40 CFR Part 63, Subpart S, §63.445 shall meet the standards for enclosure and closed-vent systems specified in 40 CFR §63.450. [40 CFR Part 63, Subpart S]
- G. Verso Androscoggin shall operate monitors and record the following parameters as specified for the A and B Bleach Plant Scrubbers [CFR Part 63, §63.453(c), and 06-096 CMR 140, BPT]:

<u>Parameter</u>	<u>Frequency</u>	
	<u>Monitor</u>	<u>Record</u>
Scrubber Recycle Flow Rate	Continuously	Once every 8 hours
Scrubber Pressure Drop		
Scrubber Influent pH		
Scrubber Influent ORP	Continuously	Once every 8 hours
Bleach Plant Scrubber Fan Amperage		

For the purposes of the above table, *continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period. Three data points constitute a valid hour. Two valid hours constitute a valid basis for a three-hour average.

- H. To establish or re-establish the value for each operating parameter required by Subpart S, Verso Androscoggin shall use the procedures set forth in 40 CFR Part 63, Subpart S, §63.453 (n). [40 CFR Part 63, Subpart S, §63.453(n)]
- I. Verso Androscoggin shall operate the Cl₂ and ClO₂ Scrubbers in a manner consistent with the minimum or maximum (as appropriate) operating parameter values established as required in Subpart S. Operation of a control device below minimum operating parameter values or above maximum operating parameter values established under Subpart S or failure to perform procedures required by Subpart S shall constitute a violation of the applicable emission standard of Subpart S and shall be reported as a period of excess emissions. [40 CFR Part 63, Subpart S, §63.453 (o)]
- J. Verso Androscoggin shall comply with applicable recordkeeping, reporting, and test methods and procedures requirements of Subpart S and as approved in alternative monitoring plans. [40 CFR Part 63, Subpart S, §63.454 (g); §63.455 (b) and (e); §63.457]

- K. Verso Androscoggin shall submit performance test reports in accordance with 40 CFR Part 63, Subpart S, §63.455 (h), as applicable to the test method, for the stack emissions testing required every five years. [40 CFR Part 63, Subpart S, §63.455]

(26) **Paper Machines**

Verso Androscoggin shall maintain records of production and of additives and coatings used in the paper or substrate formation associated with the Paper Machines. Annual emissions from the paper machines shall be reported as combined VOCs from all of the paper machines and will be calculated based on production and an industry-based emission factor for bleached kraft paper machines for annual emissions reporting required in accordance with 06-096 CMR 137.

(27) **#3 Paper Machine (#3 PM)**

- A. The #3 PM Infrared Dryers shall fire propane and/or natural gas. Verso Androscoggin shall maintain records of the amounts of each type of fuel fired in the #3 PM Infrared Dryers. [A-203-70-A-I (January 12, 2005) and A-203-77-13-A (January 19, 2012); BACT]

- B. Emissions from the #3 PM Infrared Dryers shall not exceed the following:

<u>Pollutant</u>	<u>Emission Limits</u>	<u>Origin and Authority</u>
PM	0.05 lb/MMBtu	A-203-71-AU-A, (December 20, 1999) and A-203-77-13-A (January 19, 2012); BACT
PM, PM ₁₀	0.70 lb/hr	
SO ₂	0.05 lb/hr	
NO _x	2.0 lb/hr	A-203-71-AU-A, (December 20, 1999) and A-203-77-13-A (January 19, 2012); BACT
CO	2.2 lb/hr	
VOC	0.14 lb/hr	
Visible Emissions	10% opacity on a six-minute block average basis	

Unless otherwise specified, the averaging times for the emission limits in this table are based on the specified averaging time of the applicable test method for each pollutant.

- C. Compliance with the above emission limits shall be via emissions testing in accordance with the applicable method as specified in 40 CFR Part 60, Appendix A, upon request of the Department. [06-096 CMR 140, BPT]

(28) **#4 Paper Machine (#4 PM) Source Group**

- A. The #4 PM Source Group includes the following fuel-burning units, which are licensed to fire the fuels as specified in this table.

Equipment	Max. Capacity (MMBtu/hr)	Fuel Type, % sulfur
#4 PM Calender Roll (Beloit Soft-Nip Calender Roll)	14	Distillate Fuel, 0.5%
		Propane, negligible
		Natural Gas, negligible
#4 PM Infrared Dryers	9.6	Propane, negligible
		Natural Gas, negligible
#4 PM Air Floatation Dryers	8	Propane, negligible
		Natural Gas, negligible

- B. Verso Androscoggin shall maintain purchase records of the total amounts of each fuel fired in the #4 PM Calender Roll, the #4 PM Infrared Dryers, and the #4 PM Air Flotation Dryers. [A-203-70-A-I (January 12, 2005) and A-203-77-13-A (January 19, 2012); BACT]
- C. Fuel oil fired in the #4PM Calender Roll shall meet ASTM D396 standards for distillate fuel [A-203-77-6-A (July 15, 2009)] and shall comply with 38 MRSA §603-A(2)(A)(3).

Compliance shall be demonstrated through recordkeeping of fuel use associated with the #4 Paper Machine Source Group. [06-096 CMR 140, BPT]

- D. Emissions from the specific components of the #4 PM Source Group shall not exceed the following:

Unit	Emission Limits						
	lb/MMBtu PM	lb/hour					
		PM	PM₁₀	SO₂	NO_x	CO	VOC
#4PM Calender Roll	0.12 ¹	1.7	1.7	7.1	4.2	4.2	1.4
Infrared Dryers	0.05 ¹	0.5	0.5	0.01	2.4	3.8	1.0
Air Floatation Dryers	0.05 ²	0.4	0.4	0.1	2.0	3.2	0.8
Trimvac Trim Conveying System	--	2.0 ²	1.0 ²	--	--	--	--

¹ [A-203-71-AC-A (October 15, 1996), A-203-77-6-A (July 15, 2009), and A-203-77-13-A (January 19, 2012); BACT]

² [A-203-71-AA-A (June 27, 1996), A-203-77-6-A (July 15, 2009), and A-203-77-13-A (January 19, 2012); BACT]

[A-203-77-8-A (November 20, 2009), A-203-77-13-A (January 19, 2012), and A-203-77-13-A (January 19, 2012); BACT unless otherwise noted]

- E. Compliance with the above emission limits shall be via emissions testing in accordance with the applicable method as specified in 40 CFR Part 60, Appendix A, upon request of the Department. [06-096 CMR 140, BPT]
- F. Visible emissions from the specified units shall not exceed the following:

<u>Unit</u>	<u>Visible Emissions Limit</u>	<u>Authority</u>
#4PM Calender Roll	10% opacity on a six-minute block average basis while firing propane or natural gas; and 20% opacity for no more than five minutes in any continuous one-hour period when firing distillate fuel	A-203-71-AA-A (June 27, 1996), A-203-77-6-A (July 15, 2009), and A-203-77-13-A (January 19, 2012); BACT
Infrared Dryers Air Floatation Dryers	10% opacity on a six-minute block average basis	A-203-71-AA-A (June 27, 1996), A-203-77-6-A (July 15, 2009), and A-203-77-13-A (January 19, 2012); BACT
Trimvac Trim Conveying System	5% opacity on a six-minute block average basis	A-203-71-AC-A (October 15, 1996), A-203-77-6-A (July 15, 2009), and A-203-77-13-A (January 19, 2012); BACT

- G. VOCs from additives and coatings associated with the #4 Paper Machine will be reported as combined VOCs from all use on all of the paper machines. VOCs in coatings or additives are reported in the annual inventory for those with VOC content above the de minimus reporting threshold for requiring the chemical to be included on the material safety data sheet.
- H. Verso Androscoggin shall conduct a tune-up on the calendar roll heaters every two years in the manner as specified in 40 CFR §63.7540, or as amended in the rule. [Part 1 of Table 3 to 40 CFR Part 63, Subpart DDDDD]

(29) Steam Jenny

- A. The Steam Jenny is licensed to fire kerosene or equivalent distillate fuel. [06-096 CMR 140, BPT]
- B. Visible emissions from the Steam Jenny shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in any three-hour period. [06-096 CMR 101 (2)(B)(1)(b)]
- C. Verso Androscoggin shall conduct a tune-up on the Steam Jenny every five years in the manner as specified in 40 CFR §63.7540, or as amended in the rule. [Part 1 of Table 3 to 40 CFR Part 63, Subpart DDDDD]

(30) **Water Treatment Plant Furnaces**

A. The Water Treatment Main Furnace and the Water Treatment Small Furnace are licensed to fire distillate fuel meeting ASTM standards. The maximum allowed fuel sulfur content shall be reduced as specified in 38 MRSA §603-A(2)(A)(3), and compliance shall be demonstrated in accordance with Specific Condition (14) of this Order. [A-203-70-B-A (September 29, 2006) and A-203-77-21-A (February 20, 2015)]

B. Emissions from the Water Treatment Main Furnace shall not exceed the following limits:

<u>Pollutant</u>	<u>Emission Limits</u>	<u>Origin and Authority</u>
PM	0.12 lb/MMBtu	A-203-70-A-I (January 12, 2005); BACT
	0.4 lb/hr	
PM ₁₀	0.4 lb/hr	
SO ₂	0.94 lb/hr	
NO _x	0.93 lb/hr	
CO	0.11 lb/hr	
VOC	0.01 lb/hr	
Visible Emissions	20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period	06-096 CMR 101, 2(B)(1)(b)

Unless otherwise specified, the averaging times for the emission limits in this table are based on the specified averaging time of the applicable test method for each pollutant.

C. Emissions from the Water Treatment Small Furnace shall not exceed the following limits:

<u>Pollutant</u>	<u>Emission Limits</u>	<u>Origin and Authority</u>
PM	0.03 lb/hr	AP-42 Table 1.3-1 and 1.3-2
PM ₁₀	0.01 lb/hr	AP-42 Table 1.3-2
SO ₂	0.55 lb/hr	AP-42 Table 1.3-1
NO _x	0.16 lb/hr	AP-42 Table 1.3-1
CO	0.04 lb/hr	AP-42 Table 1.3-1
VOC	0.01 lb/hr	AP-42 Table 1.3-3

<u>Pollutant</u>	<u>Emission Limits</u>	<u>Origin and Authority</u>
Visible Emissions	20% on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period	06-096 CMR 101, 2(B)(1)(b)

- D. Compliance with the emission limits for the Water Treatment Main Furnace and the Water Treatment Small Furnace shall be demonstrated through testing according to the applicable emissions test method of 40 CFR Part 60, Appendix A, on the request of the Department. [06-096 CMR 140, BPT]
- E. Verso Androscoggin shall conduct a tune-up on each unit every five years in the manner as specified in 40 CFR §63.7540, or as amended in the rule. [Part 1 of Table 3 to 40 CFR Part 63, Subpart DDDDD]

(31) Wastewater Treatment Plant Source Group

Verso Androscoggin shall conduct periodic monitoring of the Aeration Lagoon in accordance with the requirements of 40 CFR §63.453 (j), including the following:

- A. Monitor the following parameters daily for the Aeration Lagoon:
- Soluble COD;
 - Horsepower of aerator unit(s); and
 - Effluent flow (representing inlet flow). [40 CFR §63.453 (j)(1)(i)]
- B. Obtain samples at the inlet and outlet of the Aeration Lagoon in accordance with the requirements of 40 CFR Part 63, Subpart S §63.453 (j)(1)(ii) and (j)(3).
- C. Perform testing in accordance with test methods and procedures as described in 40 CFR §63.457 (g). [40 CFR §63.453 (j)(1)(ii)]

(32) Groundwood Mill

Actual annual emissions of VOCs from the Grinder Source Group of the Groundwood Mill shall not exceed 126.7 TPY. Compliance with this limit shall be demonstrated by maintaining records of groundwood pulp production rates (in air-dried tons of pulp, ADTP) specific to wood species processed (hardwood/softwood) on a monthly basis and calculating VOC emissions, in tons, based on an emission rate of 0.120 lb of VOC/ADTP for hardwood and 3.648 lb of VOC/ADTP for softwood on a 12-month rolling total basis. [A-203-77-5-A (January 6, 2009)]

(33) Bulk Handling System Source Group

- A. All baghouses or filters shall be maintained such that visible emissions do not exceed 10% opacity on a six-minute block average basis, except for no more

than one six-minute block average in a one-hour period. Corrective action is required to be taken if visible emissions from any baghouse exceed 5% opacity. [06-096 CMR 101 (2)(B)(3)(c)]

- B. Particulate emissions from the Bulk Handling Systems Source Group shall be controlled by baghouses on the bulk storage silos. The recaust lime silos shall vent to a baghouse during bulk unloading.
- C. To document maintenance of the baghouses, Verso Androscoggin shall keep maintenance records recording the date and location of all bag failures and all routine maintenance. [A-203-70-A-I (January 12, 2005), BPT]
- D. All spills, including lime, clay, saltcake, and starch, shall be cleaned up within 24 hours of the occurrence of each spill. [A-203-70-A-I (January 12, 2005), BPT] **Enforceable by State-only**
- E. Verso Androscoggin shall inspect all unloading systems for leaks and malfunctions before commencing the unloading of materials into any of the silos that comprise the Bulk Handling Systems Source Group. If a leak or malfunction is detected during unloading, the facility shall discontinue unloading until the leak or malfunction is corrected and eliminated. [A-203-70-A-I (January 12, 2005), BPT] **Enforceable by State-only**

(34) **Landfill** [A-203-70-A-I (January 12, 2005)]

- A. Verso Androscoggin shall continue to conduct periodic sampling and analysis and monitor Landfill gas emissions as required by the Maine DEP solid waste license #S-006247-WD-N-R. [06-096 CMR 134, VOC RACT]
- B. The areas of the Landfill containing asbestos waste shall comply with the applicable requirements of 40 CFR Part 61, Subpart M, §61.154.

(35) **Emergency Engines**

A. Allowable Operation and Fuels

Verso Androscoggin is licensed to operate existing emergency reciprocating internal combustion engines (RICE) including the following:

- Emergency Drives on Lime Kilns A and B (gasoline)
- Recaustr Emergency Power Generator (propane)
- Big Daddy Pump (465 kW)
- Fire Pump (268 hp)

B. Fuel Sulfur Content [06-096 CMR 140, BPT]

1. The sulfur content of fuel fired in the Emergency Engines firing distillate fuel shall be limited to 0.0015% sulfur by weight, also designated as ultra-low sulfur (ULS) or 15 ppm S on fuel slips.
2. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier documenting the type of fuel delivered and ULS distillate designation.

C. Visible Emissions

Visible emissions from each of the engines shall not exceed 20% opacity on a six-minute block average, except for no more than two six-minute block averages in a three-hour period. [06-096 CMR 101]

D. The Emergency Drives on Lime Kilns A and B, Reconst Emergency Power Generator, and the Fire Pump (268 hp) shall meet the applicable requirements of 40 CFR Part 63, Subpart ZZZZ, including the following:

1. Verso Androscoggin shall meet the following operational limitations for each of the compression ignition emergency engines:
 - a. Change the oil and filter every 500 hours or annually, whichever comes first;
 - b. Inspect the air cleaner annually; and
 - c. Inspect the hoses and belts annually and replace as necessary.

Records shall be maintained documenting compliance with the operational limitations.

[40 CFR §63.6603(a) and Table 2(d); and 06-096 CMR 140, BPT]

2. A non-resettable hour meter shall be installed and operated on each engine. [40 CFR §63.6625(f)]
3. Maintenance, Testing, and Non-Emergency Operating Situations
 - a. The engines shall each be limited to 100 hours/year for maintenance and testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations. Compliance shall be demonstrated by a written log of all engine operating hours. There is no limitation for emergency use. [40 CFR §63.6640(f)(1) and 06-096 CMR 115]
 - b. Verso Androscoggin shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what

classified the operation as emergency and how many hours spent for non-emergency. [40 CFR §63.6655(e) and (f)]

4. The engines shall be operated and maintained according to the manufacturer's emission-related written instructions, or Verso Androscoggin shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

5. Periodic Monitoring

Verso Androscoggin shall monitor and record parameters for *each engine* as indicated in the following table whenever the equipment is operating. [06-096 CMR 140, BPT]

<u>Parameter</u>	<u>Units of Measure</u>	<u>Monitoring Tool/Method</u>	<u>Frequency</u>
Fuel standard of ULS distillate	ULS designation or 15 ppm S	Fuel receipts from supplier	As fuel is purchased
Operating time	Hours	Hour Meter	Log of operation with date and hour meter reading

(36) **Organic Liquids Bulk Storage Tanks**

A. Methanol Bulk Storage Tank

The Methanol Bulk Storage Tank is not currently in use. Verso Androscoggin shall notify the Department before commencing use of the Methanol Bulk Storage Tank. [A-203-70-A-I (January 12, 2005) and 06-096 CMR 140, BPT]

B. Gasoline Storage Tank

1. Verso Androscoggin shall maintain records of gasoline throughput for this storage tank which allow the monthly and annual throughput to be determined. Copies of these records shall be maintained on the premises for a minimum of three years. These records must be available for inspection during normal business hours and copies provided to the Department and/or EPA upon request.

If the monthly throughput ever exceeds the applicability threshold of 10,000 gallons per month, Verso Androscoggin shall notify the Department of its applicability within thirty (30) days. [06-096 CMR 118 (10)(B)]

2. Verso Androscoggin shall maintain a submerged fill pipe that extends to within six inches of the bottom of the gasoline storage tank. [06-096 CMR 118 (4)(A)]

(37) **Temporary Units Source Group**

- A. Verso Androscoggin is licensed to bring on-site and to operate temporary equipment, including but not limited to Small Package Boilers. These units will be leased and brought on-site on an as-needed basis and are not intended as permanent installations, and may remain for a period of time greater than four weeks but less than 12 months, per unit per calendar year, unless extended by the Department. The exact size of each unit will vary based on the need and intended use. These temporary emission units are licensed to operate in addition to currently licensed emission sources.
- B. Temporary Units shall be limited to an individual heat input capacity not to exceed 10 MMBtu/hour. [06-096 CMR 140, Appendix B (B)(4); BPT]
- C. Fuel fired in temporary equipment shall be limited to distillate fuel, natural gas, or propane. [A-203-70-B-A (September 29, 2006)]
- D. Visible emissions from any unit in the Temporary Units Source Group shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in any one-hour period. [06-096 CMR 101 (2)(B)(3)(d)]

Compliance with the opacity limits for temporary units shall be demonstrated upon request by the Department. [A-203-70-B-A (September 29, 2006)]

- E. Periodic Monitoring [06-096 CMR 140, BPT]

Verso Androscoggin shall comply with the following periodic monitoring requirements:

1. Records shall include the types and quantities of fuels based on fuel receipts.
2. Records shall include the dates that each unit was rented or leased and the capacity of the unit rented or leased.
3. These records shall be made available to the Department upon request.

(38) **Parts Washers** [06-096 CMR 130]

Parts washers at Verso Androscoggin are subject to *Solvent Cleaners*, 06-096 CMR 130 (as amended).

- A. Verso Androscoggin shall keep records of the amount of solvent added to each parts washer. [06-096 CMR 115, BPT]
 - B. The following are exempt from the requirements of 06-096 CMR 130:
 - 1. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
 - 2. Wipe cleaning; and,
 - 3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.
 - C. The following standards apply to cold cleaning machines that are applicable sources under 06-096 CMR 130.
 - 1. Verso Androscoggin shall attach a permanent conspicuous label to each unit summarizing the following operational standards:
 - a. Waste solvent shall be collected and stored in closed containers.
 - b. Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
 - c. Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized, or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
 - d. The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
 - e. Sponges, fabric, wood, leather, paper products, and other absorbent materials shall not be cleaned in the degreaser.
 - f. When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
 - g. Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.
 - h. Work area fans shall not blow across the opening of the degreaser unit.
 - i. The solvent level shall not exceed the fill line.
 - 2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches.
- (39) **General Process Sources** [06 096 CMR 101]

Visible emissions from any general process source not specifically addressed in this license shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period.

(40) Fugitive Emissions [06-096 CMR 101]

Visible emissions from a fugitive emission source, including stockpiles and roadways, shall not exceed 20% opacity except for no more than five minutes in any one-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any one hour.

(41) Equipment Operating & Maintenance Requirement

Per 40 CFR Part 51 §51.308(e)(1)(v), the facility shall maintain the control equipment required by BART and established procedures to ensure such equipment is properly operated and maintained. This condition shall go into effect 5 years from the date of EPA's approval of Maine's Regional Haze SIP submittal. [40 CFR Part 51 §51.308(e)(1)(v)] [A-203-77-11-M (Nov. 2, 2010)]

(42) Parameter Monitor General Requirements [06-096 CMR 140]

- A. Parameter monitors required by this license shall be installed, operated, maintained, and calibrated in accordance with manufacturer recommendations or as otherwise required by applicable Subparts of 40 CFR Part 63 or by the Department.
- B. Each parameter monitor required by this license shall continuously monitor data at all times the associated emissions unit is in operation. Unless otherwise specified by the applicable 40 CFR Part 63 Subpart, "Continuously" with respect to the operation of parameter monitors means providing equally spaced data points with at least one valid data point in each successive 15-minute period. A minimum of three valid 15-minute periods constitute a valid hour.
- C. Each parameter monitor required by this license must record accurate and reliable data. Parameter monitors not already subject to monitor up-time requirements of 40 CFR Part 63 shall record accurate and reliable data at least 98% of the associated emissions unit operating time within any quarter of the calendar year. If an applicable monitor falls below this threshold, the Department may initiate enforcement action and may include in that enforcement action any period of time that the parameter monitor was not recording accurate and reliable data during that quarter unless Verso can demonstrate to the satisfaction of the Department that the failure of the system to record accurate and reliable data was due to the performance of established quality assurance and quality control procedures or unavoidable malfunctions.

(43) **CEMS and Recordkeeping**

A. The CEMS and COMS at the Verso Androscoggin mill include the following:

Monitors	Unit Emissions to be Monitored
SO ₂ , NO _x , and O ₂ CEMS	Boiler #3
NO _x , SO ₂ , TRS, and O ₂ CEMS	#1 Recovery Boiler
NO _x , SO ₂ , TRS, and O ₂ CEMS	#2 Recovery Boiler
SO ₂ CEMS and COMS	#1 and #2 Recovery Boilers' Combined Stack
TRS CEMS	Lime Kiln A
TRS CEMS	Lime Kiln B

B. The following records shall be kept for the CEMS and COMS at the Verso Androscoggin Mill:

1. Documentation that all CEMS and COMS are continuously accurate, reliable, and operated in accordance with 06-096 CMR 117, 40 CFR Part 51, Appendix P, and 40 CFR Part 60, Appendices B and F;
2. Records of all measurements, performance evaluations, calibration checks and maintenance or adjustments for each CEMS and COMS as required by 40 CFR Part 51, Appendix P;
3. A report or other data indicative of compliance with the applicable emission standard for those periods when the CEMS and COMS were not in operation or produced invalid data. In the event the Department does not concur with Verso Androscoggin's compliance determination, Verso Androscoggin shall, upon the Department's request, provide additional data, and shall have the burden of demonstrating that the data is indicative of compliance with the applicable standard. [06-096 CMR 117]

[A-203-70-A-I (January 12, 2005)] and [A-7-203-70-P-A (May 13, 2013)]

(44) **Compliance Assurance Monitoring (CAM) – General Requirements**

A. The emission units identified in the following table are subject to CAM.

Units	Pollutant	Regulatory Authority
Coating Prep. and Additives Starch Unloading	PM	40 CFR §64.2(a) and (b)
Recaust Lime Unloading		
Power House Saltcake Unloading		
WWTP Lime Unloading		
RTO	SO ₂	

- B. Verso Androscoggin shall operate and monitor all emission units and their associated control equipment in accordance with the approved CAM Plan, as applicable. [40 CFR Part 64]
- C. Any excursion shall be reported in semiannual reports. If excursions occur, Verso Androscoggin must also certify intermittent compliance with the emission limits for the control device monitored in the annual compliance certification. [40 CFR Part 64]
- D. Upon detecting an excursion, Verso Androscoggin shall restore normal operation of the control equipment as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. [40 CFR 64.7(d)]
- E. Prior to making any changes to the approved CAM plan as outlined in this Part 70 license, Verso Androscoggin shall notify the Department and, if necessary, submit a proposed license modification application to address the necessary monitoring changes to the RTO scrubber parameters or bulk handling operations. Such a modification may include, but is not limited to, reestablishing designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [40 CFR 64.7(e)]
- F. Any change of the target level shall be submitted in a letter to the Department for written approval. [06-096 CMR 140, BPT]

(45) Quarterly Reporting

Verso Androscoggin shall submit a Quarterly Report to the Department within 30 days after the end of each calendar quarter, detailing the following for the control equipment, parameter monitors, Continuous Emission Monitoring Systems (CEMS), and Continuous Opacity Monitoring Systems (COMS) required by this license. [06-096 CMR 117 and 140, BPT]

- A. All control equipment downtimes and malfunctions;
- B. All CEMS or COMS downtimes and malfunctions;
- C. All parameter monitor downtimes and malfunctions;
- D. All excess events of emission and operational limitations set by this Order, Statute, state regulations, or federal regulations, as appropriate. The following information shall be reported for each excess event:
 - 1. Standard exceeded;
 - 2. Date, time, and duration of excess event;
 - 3. Amount of air contaminant emitted in excess of the applicable emission standard expressed in the units of the standard;

4. A description of what caused the excess event;
 5. The strategy employed to minimize the excess event; and
 6. The strategy employed to prevent reoccurrence.
- E. A report certifying there were no excess emissions, if that is the case.
[A-203-70-A-I (January 12, 2005)]

(46) **Semiannual Reporting** [06-096 CMR 140]

- A. Verso Androscoggin shall submit to the Bureau of Air Quality semiannual reports due **January 31st** and **July 31st** of each year. The facility's designated responsible official must sign this report.
- B. The semiannual report shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the Department within seven calendar days of the due date.
- C. Each semiannual report shall include a summary of the periodic and CAM monitoring required by this license.
- D. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

(47) **Annual Compliance Certification**

Verso Androscoggin shall submit an annual compliance certification to the Department in accordance with Standard Condition (13) of this license. The annual compliance certification is due January 31 of each year. The facility's designated responsible official must sign this report.

The annual compliance certification shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the Department within seven calendar days of the due date. Certification of compliance is to be based on the stack testing or monitoring data required by this license. Where the license does not require such data or the license requires such data only upon request of the Department and the Department has not requested the testing or monitoring, compliance may be certified based upon other reasonably available information such as the design of the equipment or applicable emission factors. [06-096 CMR 140]

(48) **Annual Emission Statement** [06-096 CMR 137]

In accordance with *Emission Statements*, 06-096 CMR 137 (as amended), Verso Androscoggin shall annually report to the Department the information necessary

to accurately update the State's emission inventory by means of either of the following:

- A. A computer program and accompanying instructions supplied by the Department; or
- B. A written emission statement containing the information required in 06-096 CMR 137.

The emission statement must be submitted by the date as specified in 06-096 CMR 137.

(49) **General Applicable State Regulations**

Verso Androscoggin is subject to the State regulations listed below.

<u>Origin and Authority</u>	<u>Requirement Summary</u>	<u>Enforceability</u>
06-096 CMR 102	Open Burning	-
06-096 CMR 109	Emergency Episode Regulation	-
06-096 CMR 110	Ambient Air Quality Standard	-
06-096 CMR 116	Prohibited Dispersion Techniques	-
38 M.R.S.A. §585-B, §§5	Mercury Emission Limit	Enforceable by State-only

(50) **Units Containing Ozone Depleting Substances**

When repairing or disposing of units containing ozone depleting substances, Verso Androscoggin shall comply with the standards for recycling and emission reduction pursuant to 40 CFR Part 82, *Protection of Stratospheric Ozone*, Subpart F, *Recycling and Emissions Reduction*, except as provided for motor vehicle air conditioning units in 40 CFR Part 82, Subpart B. [40 CFR, Part 82, Subpart F]

(51) **Asbestos Abatement**

When undertaking Asbestos abatement activities, Verso Androscoggin shall comply with the *Standard for Asbestos Demolition and Renovation*, 40 CFR Part 61, Subpart M.

(52) **Risk Management Plan**

Verso Androscoggin is subject to all applicable requirements of 40 CFR Part 68, *Chemical Accident Prevention Provisions*.

(53) **Expiration of a Part 70 License** Enforceable by State-only

- A. Verso Androscoggin shall submit a complete Part 70 license renewal application at least 6 months but no more than 18 months prior to the expiration of this air emission license.
- B. Pursuant to Title 5 MRSA §10002, and 06-096 CMR 140, the Part 70 license shall not expire and all terms and conditions shall remain in effect until the Department takes final action on the Part 70 license renewal application. An existing source which has submitted a complete license renewal application under 06-096 CMR 140 prior to the expiration of the Part 70 license will not be in violation of operating without a Part 70 license.

(54) **New Source Review**

Verso Androscoggin is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emissions license, and the NSR requirements remain in effect even if this 06-096 CMR 140 Air Emission License, A-203-70-G-R/A, expires.

DONE AND DATED IN AUGUSTA, MAINE THIS 20 DAY OF May, 2015.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

The term of this license shall be five (5) years from the signature date above.

[Note: If a renewal application determined by the Department to be complete is submitted at least 6 months but no more than 18 months prior to the expiration of this air emission license, then pursuant to Title 5 MRSA §10002, all terms and conditions of the Part 70 license shall remain in effect until the Department takes final action on the Part 70 license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: January 13, 2009

Date of application acceptance: February 4, 2009

Date filed with the Board of Environmental Protection:

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

