



DEPARTMENT ORDER

Verso Androscoggin LLC  
Franklin County  
Jay, Maine  
A-203-77-23-M

Departmental  
Findings of Fact and Order  
New Source Review  
NSR #23

FINDINGS OF FACT

After review of the air emission license amendment application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 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	06-096 C.M.R. ch. 115, Minor Revision
NAICS CODES	322121
NATURE OF BUSINESS	Pulp and Paper Mill
FACILITY LOCATION	Jay, Maine

Verso Androscoggin LLC (Verso) operates an integrated pulp and paper mill located in Jay, Maine. The facility was established in 1965 and produces a variety of paper grades from bleached and unbleached kraft pulp. The facility is owned by Verso Corporation and operated as Verso Androscoggin LLC.

Verso is an existing stationary source and is considered a Part 70 major source as defined in *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100. Verso is currently operating under a Part 70 Air Emission License A-203-70-G-R/A, issued May 20, 2015.

B. NSR License Description

Verso has submitted an application in accordance with 06-096 C.M.R. ch. 115, *Major and Minor Source Air Emission License Regulations*, to authorize changes that will allow Verso to replace the two existing 900 HP motors on their primary softwood kraft refiners on the Paper Machine #4 (PM4) stock preparation system.

C. Emission Equipment

The following equipment is addressed in this NSR license:

**Equipment Modified by the No. 4 Paper Machine Modification**

<b><u>Equipment</u></b>	<b><u>Unit Type</u></b>	<b><u>Stack #</u></b>
No. 4 Paper Machine Softwood Kraft Refiners	Process Equipment	No Vents

**Equipment Affected by the No. 4 Paper Machine Modification**

<b><u>Equipment</u></b>	<b><u>Unit Type</u></b>	<b><u>Stack #</u></b>
No. 4 Paper Machine (PM4)	Process Equipment	Multiple Vents

D. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the issued date of this license.

The application submitted by Verso does not violate any applicable federal or state requirements; does not reduce monitoring, reporting, testing, or recordkeeping requirements; and does not seek to modify a Best Available Control Technology (BACT) analysis.

The modification of a major source is considered a major or minor modification based on whether or not expected emissions increases exceed the "Significant Emission Increase" levels as given in 06-096 C.M.R. ch. 100.

The emission increases are determined by subtracting the baseline actual emissions of the 24 months preceding the modification (or representative 24 months) from the projected actual emissions.

For particulate matter (PM), PM<sub>10</sub>, and PM<sub>2.5</sub>, and for VOC, both the baseline and future emissions were estimated using industry based emission factors as identified in the application. The PM<sub>10</sub> and PM<sub>2.5</sub> emission estimates include both the filterable and condensable portions of emissions.

The calculated baseline and projected actual emissions for PM4 are presented below:

<b>Pollutant</b>	<b>Baseline Actual Emissions 7/10 – 06/12 (ton/year)</b>	<b>Projected Actual Emissions (ton/year)</b>	<b>Net Change in Emissions (ton/year)</b>	<b>Significant Emissions Increase Levels (ton/year)</b>
PM	4.43	3.98	-0.45	25
PM <sub>10</sub>	8.85	7.96	-0.89	15
PM <sub>2.5</sub>	7.53	6.77	-0.76	10
VOC	7.64	6.87	-0.77	40

Note: The above values are for PM4 only. None of the other equipment at the facility is affected by this NSR license.

The proposed project is not projected to result in an emissions increase from PM4. However, to be conservative, the Department is processing this amendment as a minor modification application under *Minor and Major Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115. The procedures found in 06-096 C.M.R. ch. 115 can be utilized to process this application since the proposed changes are not prohibited by the Part 70 air emission license. No new conditions are required of Verso as a result of the execution of the project described in this NSR license. Therefore, Verso does not need to submit an application to modify their Part 70 air emissions license upon completion of the project documented in this NSR.

## II. **BEST PRACTICAL TREATMENT (BPT)**

### A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

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

### Softwood Kraft Refiners

The PM4 softwood refiners are not considered to be licensed emission units. These refiners are pieces of process equipment that are used to condition the pulp fibers used to make paper on PM4. The replacement of their motors with larger ones by this project does not make the PM4 softwood kraft refiners emission units.

Paper Machine #4 (PM4)

Paper Machine #4 is an existing licensed emission unit that utilizes pulp that has been processed by the softwood kraft refiners. The regulated pollutants emitted from Paper Machine #4 are PM, PM<sub>10</sub>, PM<sub>2.5</sub> and VOC. The proposed project will not cause an increase in the emissions of any PM or VOC pollutants from PM4 since the overall paper machine production rates will not increase above historic levels. Because PM4 is already permitted and incorporates BPT for PM, PM<sub>10</sub>, PM<sub>2.5</sub> and VOC, no further BACT demonstration is required for PM or VOC emissions from PM4. [06-096 C.M.R. ch. 115(4)(A)(4)(d)]

B. Project Description

Verso has begun manufacturing new specialty paper grades on their PM4, but the new grades require a higher degree of pulp refining prior to the paper machine itself relative to other existing grades currently being produced on PM4.

The development of pulp fibers inside a refiner is dependent on several variables, including but not limited to pulp characteristics, refiner plate design and condition, refiner plate gap, the volume of pulp (throughput) that is being processed, and energy imparted into the pulp fibers while they are exposed to the refiner plates.

This project will replace the 900 HP electric motors that currently drive the PM4 softwood kraft refiners with new, 1250 HP motors. The new motors will allow the refiners to impart more energy into the softwood kraft pulp without having to slow down the flow of pulp being processed through them, thus enabling the refiners to produce the volume and quality of pulp to PM4 required to produce the new specialty grades at the targeted operating speeds. The larger refiner motors will not increase the throughput capacity or the total pulp output from the refiners, as there will be no change to the capacities of the feed pumps.

By eliminating the need for PM4 to run at slower speeds while producing the new specialty grades, the replacement of the PM4 refiner motors will allow a potential increase in production of these grades of approximately 3,900 tons per year. However, this potential increase will not cause Verso to exceed the historic overall paper machine production rates of PM4.

Below is a brief description of the changes to the mill operations and their emission units that will result from the project.

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. Verso has five paper machines; however, this project will only affect PM4 and its stock preparation area.

PM4 is an affected emission unit because the mix of paper grades produced on the paper machine will change as market conditions dictate. Initially, a mixed grade of product will be produced on PM4 after the refiner motor change. As more specialty grades replace coated paper grades, the tons of paper produced off of PM4 is projected to be less than historical production rates due to specialty papers having a lighter basis weight than coated papers. No changes to pulp mill production are needed to support PM4 fiber needs; therefore, there are no liquor cycle (pulp mill) affected sources associated with this project. Consequently, the level of regulated air pollutants generated by the papermaking process on PM4 will be reduced when producing the new specialty release liner grades, even when factoring in the potential additional tonnage of the new grades produced.

The PM4 softwood kraft refiners are being modified by this project through the replacement of their drive motors with larger ones. These refiners are not licensed emission units. The refiners are used to mechanically condition the softwood kraft pulp that is used on PM4, enhancing select physical properties of the pulp to affect the formation and quality of the sheet that is being manufactured. The amount of energy that is imparted into the pulp by these refiners is one of the primary tools used to control the pulp's properties.

No changes to PM4's air floatation dryers, infrared dryers, calendar roll process heaters, or trim vac system are needed or will occur as a result of increasing the production of these specialty paper grades on PM4. Therefore, these dryers, process heaters and trim vac systems are not affected units associated with the refiner system motor change.

C. Regulatory Requirements

1. New Source Performance Standards (NSPS): 40 C.F.R. Part 60

U.S. EPA has promulgated standards of performance for specific air pollution sources in 40 C.F.R. Part 60. The following Subparts potentially apply to the proposed project:

- Subpart A – General Provisions
- Subpart BB – Standards of Performance for Kraft Pulp Mills
- Subpart BBa – Standards of Performance for Kraft Pulp Mills Affected Source for Which Construction, Reconstruction, or Modification Commenced after May 23, 2013

PM4 does not qualify as an affected facility under Subparts BB or BBa. Therefore, the proposed project does not trigger NSPS requirements.

2. National Emission Standards for Hazardous Air Pollutants (NESHAP): 40 C.F.R. Part 63  
The potential applicability of specific subparts of 40 C.F.R. Part 63 is discussed below.

a. Subpart S – NESHAP from the Pulp and Paper Industry

Pursuant to the Clean Air Act Amendments (CAAA) of 1990, Verso is currently subject to 40 C.F.R. Part 63, Subpart S – *NESHAP for the Pulp and Paper Industry*. However, this subpart includes no requirements applicable to PM4 or the PM4 softwood kraft refiners.

b. Subpart MM – NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills

Pursuant to the Clean Air Act Amendments (CAAA) of 1990, Verso is currently subject to 40 C.F.R. Part 63, Subpart MM – *NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills*. However, this subpart includes no requirements applicable to PM4 or the PM4 softwood kraft refiners.

c. Subpart JJJJ – NESHAP for Paper and Other Web Coating

This subpart regulates paper machine coating operations. The coated paper that Verso currently produces is part of the paper substrate formation and thus not subject to this NESHAP. The new products that are affected by the No. 4 Paper Machine Modification project are not coated paper products.

d. Subpart DDDDD – NESHAP for Major sources: Industrial, Commercial and Institutional Boilers and Process Heaters

40 C.F.R. Part 63, Subpart DDDDD sets forth emissions limits and work practice standards, and monitoring, recordkeeping, notification, and reporting requirements that potentially apply to process heaters located at major sources of HAP. The PM4 Calendar Roll process heaters are subject to the requirements under 40 C.F.R. Part 63, Subpart DDDDD. However, the PM4 Calendar Roll process heaters will not be affected by the project; nor will the applicability of the Subpart DDDDD regulations be affected. Verso will continue to comply with the current provisions of Subpart DDDDD as outlined in Air Emission License A-203-70-G-R/A (dated May 20, 2015), as they apply to the PM4 Calendar Roll process heaters.

3. Compliance Assurance Monitoring (CAM)

PM4 is not subject to the CAM requirements of 40 C.F.R. Part 64. To be subject to the CAM requirements, an individual emission unit must satisfy all of the applicability requirements specified in § 64.2. PM4 does not have an emission limit or standard for an applicable pollutant; and PM4 does not use a control device to achieve compliance with a limit or standard. Thus, CAM requirements do not apply to PM4.

4. State of Maine Air Regulations

The following State of Maine Rules potentially apply to the proposed project. The potential applicability of each specific State rule is discussed below.

a. 06-096 C.M.R. ch. 123 – Control of Volatile Organic Compounds from Paper, Film and Foil Coating Operations

The requirements of 06-096 C.M.R. ch. 123 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 paper machines that apply sizing or water-based clays. Since the coating system on PM4 is an on-machine coater, the requirements of this regulation do not apply.

b. 06-096 C.M.R. ch. 134 - Reasonably Available Control Technology (RACT) for Facilities That Emit Volatile Organic Compounds

The provisions of this rule establish RACT requirements for facilities that emit or have the potential to emit 40 tons per year of VOC. Verso is currently subject to the requirements of ch. 134, and will continue to be subject to them after completion of the proposed project. The proposed project will not affect the regulatory applicability on PM4. As such, Verso will continue to comply with the applicable VOC RACT requirements set forth in 06-096 C.M.R. ch. 134.

D. Incorporation Into the Part 70 Air Emission License

The procedures found in 06-096 C.M.R. ch. 115 can be utilized to process this application since the proposed revision not prohibited by the Part 70 air emission license. No new conditions are required of Verso as a result of the execution of the project described in this NSR license. Therefore, Verso does not need to submit an application to modify their Part 70 air emissions license upon completion of the project documented in this NSR.

E. Annual Emissions

No licensed annual emission increases are occurring as a result of this NSR license.

III. AMBIENT AIR QUALITY ANALYSIS

Verso 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. An additional ambient air quality analysis is not required for this NSR license.

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**ORDER**

The Department hereby grants New Source Review Minor Revision A-203-77-23-M pursuant to the preconstruction licensing requirements of 06-096 C.M.R. ch. 115 and subject to the standard and specific conditions below.

Severability - The invalidity or unenforceability of any provision of this License or part thereof shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

**SPECIFIC CONDITIONS**

- (1) Verso is authorized to complete the No. 4 Paper Machine Modification Project as described in this NSR license.

DONE AND DATED IN AUGUSTA, MAINE THIS 16 DAY OF July, 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Paul Mercer  
PAUL MERCER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 7, 2018

Date of application acceptance: May 10, 2018

Date filed with the Board of Environmental Protection:

This Order prepared by Patric J. Sherman, Bureau of Air Quality.

