STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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Verso Androscoggin LLC
Franklin County
Jay, Maine
A-203-77-16-M

Departmental
Findings of Fact and Order
New Source Review
NSR #16

FINDINGS OF FACT

After review of the air emission license revision application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Verso Androscoggin LLC
LICENSE TYPE	06-096 CMR 115, Minor Revision
NAICS CODES	322121
NATURE OF BUSINESS	Pulp & Paper Mill
FACILITY LOCATION	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 Paper Corporation and operated as Verso Androscoggin LLC. The facility will be referred to in this license by any of the following terms: Verso Androscoggin, the Androscoggin Mill, or the Mill.

The Androscoggin Mill is an existing stationary source currently operating under a Part 70 License (A-203-70-A-I) and is considered a Part 70 major source as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). The Androscoggin Mill is located in an area that is either in attainment or classified as unclassifiable for all Maine ambient air quality standards (MAAQS).

Verso Androscoggin has submitted an application in accordance with *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (as amended), to revise existing conditions in their New Source Review (NSR) license A-203-77-9-A, issued March 30, 2010, addressing the applicability of the 40 CFR Part 63, Subpart S, *National Emission Standards for Hazardous Air Pollutants From*

the Pulp and Paper Industry, maximum achievable control technology (MACT) requirements for the Mill's existing A and B Chip Bins.

Verso Androscoggin is not proposing any changes to the Mill equipment or operations as part of this application to revise a part of an existing NSR license.

B. Emission Equipment

The following equipment is addressed in this air emission license revision:

Equipment	Emitted Pollutants	Pollution Control Method
A Chip Bin	VOC, TRS, HAPs	Routed to either Lime Kiln A or Lime Kiln B for destruction; part of LVHC collection system
B Chip Bin		Routed to RTO for destruction; part of HVLC collection system

VOC – volatile organic compounds
TRS – total reduced sulfur compounds
HAPs – hazardous air pollutants

C. Application Classification

The application for reconsideration of the 40 CFR Part 63, Subpart S applicability determination for the A and B Chip Bins does not violate any applicable federal or state requirements and does not reduce applicable required monitoring, recordkeeping, testing, or reporting.

Though this revision does not result in any net emissions changes, it does contain changes in an applicability determination and the resulting monitoring and reporting requirements according to 06-096 CMR 115(5)(A)(3). Therefore, this NSR license revision is determined to be a minor revision under *Minor and Major Source Air Emission License Regulations* 06-096 CMR 115 (as amended), since the changes being made are not addressed or prohibited in the Part 70 air emission license. An application to incorporate the requirements of this NSR license minor revision into the Part 70 air emission license shall be submitted no later than 12 months from commencement of the requested operation.

II. NSR LICENSE REVISIONS

A. Description of Requested Changes and Relevant Processes

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 for producing 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 pre-steaming the chips before introducing them further into the digester systems. 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] 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 are not subject to Subpart S requirements.

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 the purposes of this NSR license.

The rotary chip feeders located on both the A and B Chip Bins are equipped with steam purge systems to reduce the amount of residual chips left in the feeder pockets as well as the quantity of gas blowback into the chip bin from the steaming vessels. The chip feeders have vent pipes that typically route such gases back into the chip bin at a level below the normal level at which chips are maintained 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 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 the Mill's lime kilns.

Under certain conditions such as startup, shutdown, malfunction, periods of low chip level in the bin, or when dictated for safety purposes, exhaust gases from the chip bin exceed the capacity of the exhaust gas cooler, and the gases must be vented to the atmosphere after the transport cooler because it is unsafe to direct gases in this state to a lime kiln. Verso Androscoggin currently has procedures in place to ensure that when conditions occur that result in direct venting of A Chip Bin exhaust gases 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, as determined by the Department) is in use in the 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, the 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 the B Chip Bin. However, during normal operations, the Androscoggin Mill currently collects the B Chip Bin exhaust gases in the high volume, low concentration (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 purposes, exhaust gases from the B Chip Bin are vented directly to atmosphere. Unlike the A Chip Bin that can use non-fresh steam, 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.

As previously licensed, the A and B Chip Bins are considered subject to Subpart S MACT requirements at all times, even when they are using fresh steam. As a

result, the previous license includes requirements for reporting any time that the bins vent directly to atmosphere. The facility's NSR license is being revised to correctly address Subpart S applicability to the A and B Chip Bins.

Upon issuance of this NSR license revision, the following changes will be made to the recordkeeping and reporting requirements for the Verso Androscoggin Mill:

- To determine compliance with the Subpart S one percent venting allowance for the A Chip Bin, the Mill will track only the duration of A Chip Bin venting that occurs when flash steam is used in the A Chip Bin.
- The Mill will no longer 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.

B. Incorporation into the Part 70 Air Emission License

The requirements in this 06-096 CMR 115 New Source Review license revision shall apply to the facility upon issuance. Per *Part 70 Air Emission License Regulations*, 06-096 CMR 140 (as amended), Section 2(J)(2)(c), for a revision that has undergone NSR requirements or been processed through 06-096 CMR 115, the source must apply, within one year of commencing the proposed operations, for an amendment to the Part 70 license to include the NSR license requirements, as provided in 40 CFR Part 70.5.

ORDER

The Department hereby grants Air Emission License Minor Revision A-203-77-16-M pursuant to the preconstruction licensing requirements set forth in 06-096 CMR 115 and subject to the standard and specific conditions below.

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

SPECIFIC CONDITIONS

This condition shall replace Specific Condition (1) Subpart A of NSR Air Emission License A-203-77-9-A. All other Subparts of the original condition shall remain in effect as originally written unless modified in the future.

(1) A Chip Bin

A. Applicability

Upon initial use of flash steam, the A Chip Bin and all associated emissions

collection and control equipment shall become subject to the following changes in applicability status:

1. During any period of time when the A Chip Bin is operating using non-fresh steam, 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 and subject to all applicable license conditions associated with the LVHC Source Group contained in Verso Androscoggin's Air Emission Licenses, including any amendments.

2. 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 (NSPS for Kraft Pulp Mills).

3. During any period of time when the A Chip Bin is operating using non-fresh steam, 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 (MACT Standards) and subject to all such applicable requirements.

4. The A Chip Bin and all associated equipment of the A Chip Bin closed vent collection system are exempt from both the HVLC and LVHC collection, treatment, and reporting requirements contained in 06-096 CMR 124.

(2) Incorporation into the Part 70 License

Verso Androscoggin shall submit an application to incorporate this NSR license revision into the Part 70 air emission license no later than 12 months from the issuance of this license. [06-096 CMR 140, Section 2(J)(2)(c)]

DONE AND DATED IN AUGUSTA, MAINE THIS 27th DAY OF September , 2012.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Melanie Loyzim for
PATRICIA W. AHO, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: August 27, 2012
Date of application acceptance: August 28, 2012

Date filed with the Board of Environmental Protection:

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

Filed
SEP 27 2012
State of Maine
Board of Environmental Protection