

STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION 17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

Woodland Pulp LLC Washington County Baileyville, Maine A-215-70-S-A Departmental Findings of Fact and Order Part 70 Air Emission License Amendment #7

FINDINGS OF FACT

After review of the Part 70 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 (Department) finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Woodland Pulp LLC
LICENSE TYPE	Part 70 Significant License Modification
NAICS CODES	322120
NATURE OF BUSINESS	Pulp and Paper Mill
FACILITY LOCATION	144 Main Street, Baileyville, Maine

Woodland Pulp LLC (Woodland Pulp or Woodland) has requested the incorporation of the provisions of New Source Review (NSR) licenses A-215-77-18-A (issued 1/5/2022), A-215-77-19-A (issued 8/23/2022), and A-215-77-20-A (issued 5/25/2023) into their Part 70 License.

NSR A-215-77-18-A addressed upgrades to the air system of the #3 Recovery Boiler to increase the maximum firing rate of black liquor solids; upgrades to the Smelt Dissolving Tank to accommodate the increased firing rate of the #3 Recovery Boiler; and the removal of #6 fuel oil as an allowable fuel for the #3 Recovery Boiler, #9 Power Boiler, and Lime Kiln. This NSR also certified offset credits for nitrogen oxides (NO_x) resulting from the permanent shutdown of two other facilities in Maine, to be used for this project.

NSR A-215-77-19-A licensed a Backup Lime Kiln Auxiliary Drive Engine, to be used as a backup, emergency engine for the existing Lime Kiln Auxiliary Drive Engine.

NSR A-215-77-20-A addressed the construction and operation of a new tissue machine (TM3), and the re-licensing of two previously licensed tissue machines (TM1 and TM2) to uncouple the units from PM and VOC emission caps with the #9 Power Boiler established in NSR A-215-77-6-A (3/8/2013).

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Woodland Pulp has also requested that the NCG Incinerator be removed from the license, as the unit will no longer be used at the mill.

B. Emission Equipment

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

	Maximum Heat Input			
	Capacity	Max. Firing		Stack
Equipment	(MMBtu/hr)	Rate	Fuel Type	#
#3 Recovery Boiler		5 35 MMlb	Black liquor solids	#3 Recovery
(#3RB)	1,233	BLS/day	Propane	#5 Recovery Boiler
			Synthetic natural gas*	
TM1 Dryer Burners	50 (total)	49,019 scf/hr	Natural gas/Synthetic natural gas*	TM1_YH
TM2 Dryer Burners	50 (total)	49,019 scf/hr	Natural gas/Synthetic natural gas*	TM2_YH
TM3 TAD1 Dryer	100	98,039 scf/hr	Natural gas/Synthetic natural gas*	TM3_TAD1
TM3 TAD2 Dryer	41	40,196 scf/hr	Natural gas/Synthetic natural gas*	TM3_TAD2

Fuel Burning Equipment

* Synthetic natural gas is propane cut with air to mimic natural gas.

Generators

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Output	Fuel Type	Mfr. Date	Install. Date
Backup Lime Kiln Auxiliary Drive Engine	0.7	5.0	70 hp	Distillate Fuel	1964	2022

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Process Equipment

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Egyinen	Duaduation Data	Pollution Control	Stools #
Smelt Dissolving Tank (SDT)	5.35 MMlb BLS/day	Dynamic wet scrubber	#3 Smelt Dissolving Tank Vent
TM1	187.4 air-dried tons* (ADT)/day	Wet dust collection system and venturi scrubber	TM1_YH TM1_DUST
TM2	187.4 ADT/day	Wet dust collection system and venturi scrubber	TM2_YH TM2_DUST
TM3	250-366 ADT/day	Droplet separators, wet dust collection system, venturi scrubber	TM3_TAD1 TM3_TAD2 TM3_WET TM3_MIST TM3_GLUE TM3_DUST

* "Tons" are defined as U.S. tons or "short tons" equivalent to 2,000 pounds each.

C. 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.

Woodland Pulp has requested incorporation into the Part 70 Air License the relevant terms and conditions of NSR licenses A-215-77-18-A (1/5/2022), A-215-77-19-A (8/23/2022), and A-215-77-20-A (5/25/2023) issued to Woodland Pulp pursuant to *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115. Therefore, this license application was considered a Part 70 Significant License Modification and processed under *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140.

D. Project Descriptions

1. #3 Recovery Boiler Air System Upgrade (NSR #18)

Woodland Pulp licensed the upgrading of the #3 Recovery Boiler (#3 RB) air system to allow the unit to operate at a nominal maximum combustion rating of 5.35 million pounds of as-fired black liquor solids (BLS) per day (MMlbs/day), equivalent to 1,233 MMBtu/hr. The #3 RB was installed in 1989 and licensed with a maximum black liquor solids firing rate of 5.2 MMlb/day, equivalent to 1,207 MMBtu/hr. The #3 RB was installed with an air system design that was typical of other units of the same vintage. Since that time, kraft recovery boiler technology has improved, and upgraded

air systems are available to improve boiler safety, reliability, and environmental performance.

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The firing capacity of the #3 RB was previously listed as 5.2 MMlb/day (Air Emission License A-215-70-I-R/A, issued November 18, 2011) and was increased to 6.0 MMlb/day in NSR license A-215-77-13-A (September 29, 2017) based on black liquor firing trials in 2017; however, the #3 RB was never able to sustain operation at those firing rates for more than a few days at a time without significant plugging in the upper furnace.

The #3 RB air system upgrade includes present-day technology with the installation of new primary, secondary, and tertiary air port closure plates; a new second level of tertiary air (also known as quaternary air), located 10 to 20 feet above the existing tertiary air ports; new secondary and tertiary air ports and registers; two new black liquor openings and six new black liquor stations; and high-volume low-concentration (HVLC) gas collection system modifications.

Woodland Pulp also licensed modifications to the Smelt Dissolving Tank (SDT) in order to accommodate the future sustained firing rate of the #3 RB. The SDT has been in operation since the startup of the #3 RB in 1989, and the smelt spout system will be upgraded to present-day technology by the installation of new shatter jets. The new shatter jets will use less steam, improving the energy efficiency of the system, and more effectively treating the smelt flow, minimizing the smelt/water reaction, and improving safety. In addition, a new mist eliminator installed downstream of the wet scrubber can provide further particulate emission control but is not required to operate for Woodland to achieve compliance with SDT emission limits.

The increase in sustained #3 RB firing capacity did not lead to an increase in pulp or tissue production. Increasing the capacity of the #3 RB allowed Woodland Pulp to further take advantage of a black liquor swap arrangement that it holds with the Irving Forest Products (Irving) kraft pulp mill in St. John, New Brunswick. At present, Woodland receives black liquor from Irving by truck and returns green liquor from the Kiln/Recausticizing facility to Irving by truck, allowing Woodland to make use of the fuel benefit of the imported black liquor. This air system upgrade project allows Woodland to receive greater quantities of black liquor from Irving, further increasing the fuel benefit to this facility.

2. Backup Lime Kiln Auxiliary Drive Engine (NSR #19)

Woodland Pulp licensed the installation of a 0.7 MMBtu/hr distillate fuel-fired Backup Lime Kiln Auxiliary Drive Engine to be used as a backup, emergency engine for the existing Lime Kiln Auxiliary Drive Engine, which is also licensed as an emergency engine.

3. Tissue Machines (NSR #20)

Woodland Pulp was issued NSR license A-215-77-15-A on July 27, 2018, approving a Major Modification to construct and operate two new tissue machines which included a through-air-dried (TAD) tissue machine (TM3) and a light dry crepe (LDC) tissue machine (TM4). The NSR also relicensed existing LDC tissue machines TM1 and TM2 as new units to uncouple these units from a PM and VOC emissions cap with the #9 Power Boiler. TM1 and TM2, initially licensed in NSR license A-215-77-6-A (3/8/2013), have been in operation since 2016. TM3 and TM4 have not yet been constructed.

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In 2021, Woodland Pulp decided to pursue permitting of a TAD tissue machine for use at the facility with design parameters that differed significantly from the design of the TAD tissue machine (TM3) approved for construction by NSR A-215-77-15-A (7/27/2018). At that time, Woodland Pulp also determined that it would no longer pursue construction of TM4.

Woodland Pulp requested that NSR A-215-77-15-A (7/27/2018) be replaced by NSR A-215-77-20-A (5/25/2023) containing a revised project description to accurately describe the updated design capacity, emission rates, and exhaust flow characteristics of the TAD tissue machine selected for TM3 and the removal of TM4. The project also consisted of the re-licensing of the existing LDC TM1 and TM2 tissue machines as new units to uncouple them from the PM and VOC emissions cap with the #9 Power Boiler established in NSR A-215-77-6-A (3/11/2013). The facility also proposed the construction of a new tissue converting facility and storage warehouse.

II. BEST PRACTICAL TREATMENT (BPT) AND EMISSION STANDARDS

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 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 is based on the demonstration contained in the underlying NSR license that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental, and energy impacts. BACT for the #3 Recovery Boiler upgrade was addressed in A-215-77-18-A (1/5/2022). BACT for the Backup Lime Kiln Auxiliary Drive Engine was addressed in A-215-77-19-A (8/23/2022). BACT for the Tissue Machine Project was addressed in A-215-77-20-A (5/23/2023). These BACT analyses are summarized below.

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B. #3 Recovery Boiler

Upgrades to the #3 Recovery Boiler air system to increase the maximum firing rate of black liquor solids were authorized in NSR A-215-77-18-A (1/5/2022). The proposed project resulted in a significant emission increase for NO_x, a ground-level ozone precursor pollutant. Although Maine is classified as in attainment for ozone, at the time the NSR was issued, Woodland Pulp was located in the Ozone Transport Region, and therefore the project was required to be reviewed under Nonattainment New Source Review (NNSR). NNSR requirements for ozone include obtaining offsets for each ton of pollutant increase as described in *Growth Offset Regulation*, 06-096 C.M.CR. ch. 113, and applying Lowest Achievable Emission Rate (LAER) instead of BACT for these pollutants. The NSR established BACT for particulate matter (PM/PM₁₀/PM_{2.5}), sulfur compounds (SO₂ and TRS), carbon monoxide (CO), volatile organic compounds (VOC), and greenhouse gases (GHGs), and LAER for nitrogen oxides (NO_x).

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1. Emission Offset Credits

The proposed NO_x emissions increase for this project was 164.4 tpy. Pursuant to the requirements of 06-096 C.M.R. ch. 113, an offset ratio of 1.15 was applied, resulting in an offset requirement of 189.1 tpy. As described in NSR A-215-77-18-A (1/5/2022), 189.1 tpy of certified offset credits resulting from the permanent shutdown of the ReEnergy Fort Fairfield and ReEnergy Ashland facilities were applied to this project to satisfy offset requirements.

2. Best Available Control Technology (BACT)

BACT for the #3 Recovery Boiler was addressed in NSR A-215-77-18-A (1/5/2022).

a. Particulate Matter: PM/PM₁₀/PM_{2.5}

The majority of PM emissions (including PM_{10} and $PM_{2.5}$) from kraft recovery boilers are sodium salts, with about 80 percent of the PM_{10} being sodium sulfate with small amounts of potassium sulfate, sodium carbonate, and sodium chloride. These salts are primarily caused by the carryover of solids and sublimation and condensation of inorganic chemicals within the black liquor. The PM emissions of these salts are small in size, with 50 to 100 percent of the particulate emissions being $PM_{2.5}$.

The Department found that BACT for particulate emissions from the #3 RB is the use of a dry ESP and a PM emission limit of 0.021 gr/dscf at 8% O₂.

b. Sulfur Compounds (SO₂ and TRS)

Reduced sulfur compounds (TRS), the most common of which are hydrogen sulfide, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide, are emitted from kraft recovery boilers. In kraft recovery boilers, secondary air provides oxygen for burning organics and raises the lower furnace temperature. Tertiary and quaternary air supply oxygen to completely combust all the volatile organics and reduced sulfur gases. As a result, in passing through the various combustion air zones, much of the H₂S present is oxidized to sulfur dioxide (SO₂). Any H₂S not oxidized at this point will not be oxidized in the cooling flue gases and will form the main component of TRS emissions from the recovery boiler. The use of non-direct contact evaporators minimizes TRS emissions from recovery boilers.

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The Department found that BACT for SO₂ and TRS emissions from the #3 RB is good combustion practices using an upgraded air system; an SO₂ limit of 150 ppmvd at 8 percent O₂ on a 30-day rolling average basis with compliance demonstrated through use of the existing CEMS; a limit of 392 lb/hr on a 1-hour basis with compliance demonstrated through use of the existing CEMS; and a TRS limit of 5 ppmvd at 8 percent O₂ on a 12-hour block average basis.

c. Carbon Monoxide (CO)

Emissions of CO from recovery boilers are attributable to the incomplete combustion of organic compounds contained in black liquor and in supplemental fuels.

The Department found that BACT for CO emissions from the #3 RB is good combustion practices using an upgraded air system, a limit of 300 ppmvd at 8 percent O_2 on a 30-day rolling average basis, and a limit of 429.0 lb/hr on a 24-hour block average basis with no 1-hour block period to exceed 2,200 lb/hr.

d. Volatile Organic Compounds (VOC)

VOC are emitted in small amounts from recovery boilers. The source of these compounds is mainly from incomplete combustion or from black liquor itself when it comes into contact with combustion gases.

The Department found that BACT for VOC emissions from the #3 RB is good combustion practices using an upgraded air system and a limit of 40.2 lb/hr.

e. Greenhouse Gases (GHGs)

GHG emissions from recovery boilers are attributable to the combustion of black liquor and supplemental fuels. The GHG constituents produced include carbon

dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) and are measured by carbon dioxide equivalents (CO₂e). The conversion of fuel carbon to CO₂ during combustion is relatively independent of combustion design and firing configuration. The formation of CH₄ and N₂O are highest during periods of low-temperature or incomplete combustion. These periods are expected to be minimal in a recovery boiler due to the various combustion controls that are integral to boiler operation. CO₂ is an unavoidable product of the chemical reaction between fuel and oxygen that occurs during combustion.

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The Department found that the use of good combustion practices through an upgraded air system is BACT for the #3 RB. Continued use of good combustion practices shall be demonstrated by meeting all emission limits associated with the #3 RB.

3. Lowest Achievable Emission Rate (LAER)

 NO_x is generated in one of three mechanisms: fuel NO_x , thermal NO_x , and prompt NO_x . Fuel NO_x is produced by oxidation of nitrogen in the fuel. Combustion of fuels with high nitrogen content produces greater amounts of NO_x than those with low nitrogen content such as distillate fuel and natural gas. Thermal NO_x is formed by the fixation of nitrogen (N_2) and oxygen (O_2) at temperatures greater than 3,600 °F. Prompt NO_x forms from the oxidation of hydrocarbon radicals near the combustion flame and produces an insignificant amount of NO_x .

Fuel NO_x is the primary mechanism for the formation of NO_x emissions from recovery boilers. Nitrogen in black liquor ranges from about 0.05 to 0.25 percent of the liquor solids content, typically averaging about 0.1 percent. During black liquor combustion, nearly 75 percent of the liquor nitrogen is released during pyrolysis or devolatilization, partly as ammonia (NH₃) and partly as N₂. The NH₃ released partly oxidizes to NO and partly reduces to N₂. The remaining liquor nitrogen will be bound in the char residue, mostly as a reduced species in the salt residue or smelt. While NO_x generation within kraft recovery boilers is generally agreed upon as a purely "fuel NO_x" phenomenon, temperatures within a boiler, particularly in the upper furnace, can have a significant effect on the extent of oxidation of the NH₃ released during pyrolysis to NO.

Modifications resulting in significant emission increases of nonattainment pollutants, such as NO_x, are required to meet the Lowest Achievable Emission Rate (LAER). LAER is defined in 06-096 Ch. 100 to mean "the most stringent emission limitation which is contained in the implementation plan of any State for that class or category of source, unless the owner or operator of the proposed source demonstrates that those limitations are not achievable; or the most stringent emission limitation which is achieved in practice by that class or category of source, whichever is more stringent. In no event may LAER result in emissions of any pollutant in excess of those standards

and limitations promulgated pursuant to Section 111 or 112 of the United States Clean Air Act as amended, or any emission standard established by the Department."

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In evaluating LAER, Woodland reviewed State Implementation Plan (SIP) limits for the appropriate class or category of sources, pre-construction or operating permits issued in non-attainment areas, and the RACT/BACT/LAER Clearinghouse (RBLC).

The Department found that LAER for NO_x emissions from the #3 RB is use of a quaternary air system; limits of 85 ppmvd at 8% O_2 and 166 lb/hr on a 24-hour block average basis with compliance demonstrated through use of the existing CEMS; and a limit of 200 lb/hr on a 1-hour basis with compliance demonstrated by stack testing upon request by the Department.

4. Annual Capacity Factor Limitation

Woodland Pulp was previously limited to a federally enforceable license requirement stipulating that use of #6 fuel oil in the #3 RB shall not exceed an annual capacity factor of 10% based on a 12-month rolling total.¹ With the issuance of NSR license A-215-77-18-A (1/5/2022), #6 fuel oil was removed as a licensed fuel for the #3 RB; therefore, this fuel limit is no longer relevant. However, in that same licensing action, Woodland Pulp requested the addition of an annual capacity factor limit of 10% or less for the firing of natural gas in the #3 RB.

Annual capacity factor is defined as the ratio between the actual heat input to a steam generating unit from applicable fuels during a calendar year and the potential heat input to the steam generating unit had it been operated or 8,760 hours during a calendar year at the maximum steady state design heat input capacity. [40 C.F.R. § 60.41b]

Woodland Pulp shall not exceed an annual capacity factor of 10% (1,080,108 MMBtu/yr) for natural gas in the #3 RB on a 12-month rolling total basis. Compliance with this annual capacity factor shall be demonstrated by fuel use records showing the quantity and heating value of natural gas fired and calculations of the total heat input updated on a monthly and 12-month rolling total basis. [40 C.F.R. § 60.49b(d)(1) and 06-096 C.M.R. ch. 115, BACT]

¹ As described in Air Emission License A-215-70-I-R/A (November 18, 2011), the #3RB is limited to a 10% annual capacity factor for fossil fuel firing in order to be considered <u>not</u> subject to NSPS Subpart D or to NOx limits of NSPS Subpart Db.

5. Emission Limits and Streamlining

For the #3 RB, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (* denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

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Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
DM	0.021 gr/dscf @ 8% O ₂	06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)	0.021 gr/dscf @ 8% O ₂
PIVI	49.0 lb/hr	06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)	49.0 lb/hr
DM	0.021 gr/dscf @ 8% O ₂	06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)	0.021 gr/dscf @ 8% O ₂
F 1 VI 10	49.0 lb/hr	06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)	49.0 lb/hr
DM	0.021 gr/dscf @ 8% O ₂	06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)	0.021 gr/dscf @ 8% O ₂
r 1v12.5	49.0 lb/hr	06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)	49.0 lb/hr
	150.0 ppmvd @ 8% O ₂	06-096 C.M.R. ch. 115, BACT	150.0 ppmvd @ 8% O ₂
SO	(30-day rolling avg.)	(A-215-77-18-A, 1/5/2022)	(30-day rolling avg.)
502	392.0 lb/hr	06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)	392.0 lb/hr
	164 ppmvd @ 8% O ₂	06-096 C.M.R. ch. 138,	
	(24-hr block avg.)	§ (3)(C)(1)	85.0 ppmvd @ 8% O ₂
	85.0 ppmvd @ 8% O ₂	06-096 C.M.R. ch. 115, LAER	(24-hr block avg.)
NO	(24-hr block avg.) *	(A-215-77-18-A, 1/5/2022)	
NOx	166.0 lb/hr	06-096 C.M.R. ch. 115, LAER	166.0 lb/hr
	(24-hr block avg.)	(A-215-77-18-A, 1/5/2022)	(24-hr block avg.)
	200.0 lb/hr	06-096 C.M.R. ch. 115, LAER (A-215-77-18-A, 1/5/2022)	200.0 lb/hr
	300.0 ppmvd @ 8% O ₂	06-096 C.M.R. ch. 115, BACT	300.0 ppmvd @ 8% O ₂
	(30-day rolling avg.)	(A-215-77-18-A, 1/5/2022)	(30-day rolling avg.)
CO	429.0 lb/hr	06-096 C M R ch 115 BACT	429.0 lb/hr
	(24-hr block avg., no single hour exceeding 2,200 lb/hr)	(A-215-77-18-A, 1/5/2022)	(24-hr block avg., no single hour exceeding 2,200 lb/hr)
VOC	40.2 lb/hr	06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)	40.2 lb/hr
TRS	5.0 ppmvd @ 8% O ₂ (12-hr block avg.)	40 C.F.R. § 60.283a(a)(2)	5.0 ppmvd @ 8% O ₂ (12-hr block avg.)

Visible emissions from the #3 RB shall not exceed 20% opacity on a 6-minute block average basis. Compliance shall be demonstrated by use of a continuous opacity monitoring system (COMS). [40 C.F.R. §§ 60.282a(a)(1)(ii) and 60.284a(a)(1)]

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6. New Source Performance Standards (NSPS)

The #3 RB was previously subject to 40 C.F.R. Part 60, Subpart BB, *Standards of Performance for Kraft Pulp Mills*. Because this project resulted in a modification of the unit as defined in 40 C.F.R. § 60.2, the #3 RB became subject to 40 C.F.R. Part 60, Subpart BBa, *Standards of Performance for Kraft Pulp Mill Affected Sources for Which Construction, Reconstruction, or Modification Commenced After May 23, 2013*. The applicable requirements of this Subpart are presented in section D below.

The #3 RB is subject to 40 C.F.R. Part 60, Subpart Db, *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units* because it is a steam generating unit as defined in 40 C.F.R. § 60.41b, and has a heat input capacity greater than 100 MMBtu/hr. Applicability of the following Subpart Db requirements were altered by this project:

- a. Emission Limits
 - (1) The #3 RB was previously subject to an SO₂ emission limit when firing #6 fuel oil of 0.5 lb/MMBtu on a 30-day rolling average basis or a 0.5% fuel sulfur content limit, by weight. Because the #3 RB is no longer licensed to fire #6 fuel oil, these limits became no longer applicable and were removed.
 - (2) The #3 RB is subject to a NO_x emission limit pursuant to 40 C.F.R. § 60.44b(e) which establishes a NO_x limit for affected steam generating units that simultaneously combust only coal, oil, or natural gas with byproduct/waste. "Byproduct/waste" includes black liquor per the definition provided in 40 C.F.R. § 60.41b(b). However, Woodland Pulp was previously subject to a federally enforceable annual capacity factor limit of 10% or less for fuel oil, which exempted the #3 RB from this NO_x limit while burning oil. Fuel oil has been removed as a licensed fuel for the #3 RB, and therefore this is no longer applicable. Woodland Pulp requested the addition of a federally enforceable annual capacity factor limit of 10% for the use of natural gas in the #3 RB, resulting in the unit remaining exempt from the otherwise applicable NO_x emission limit in 40 C.F.R. § 60.44b(e). [40 C.F.R. § 60.44b(e)]

- b. Recordkeeping Requirements
 - (1) General Requirements

All records required under 40 C.F.R. Part 60, Subpart Db shall be maintained for a period of two years following the date of such record. [40 C.F.R. § 60.49b(o)]

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Please note that Standard Condition (6) of Woodland Pulp's Part 70 air emission license (A-215-70-I-R/A, issued 11/18/2011) requires that records of monitoring data and supporting information be retained for at least six years from the date of the monitoring sample, measurement, report, or application.

(2) Annual Capacity Factor

Woodland Pulp shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor for natural gas for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 C.F.R. § 60.49b(d)(1)]

C. Smelt Dissolving Tank

1. Best Available Control Technology

BACT for the Smelt Dissolving Tank (SDT) was addressed in NSR A-215-77-18-A (1/5/2022).

a. Particulate Matter: PM/PM₁₀/PM_{2.5}

Smelt exiting the #3 RB is shattered as it enters the SDT by high-pressure steam or shatter sprays of recirculated green liquor. The steam or shatter sprays break the smelt flow into small droplets and cools the smelt before it reacts with the liquid in the SDT to form green liquor. Large volumes of steam are generated when the molten smelt and liquid mix. The vapor space above the liquid level in the SDT provides an opportunity for water vapor and PM, resulting from the quenching of smelt, to settle out of suspension and into the green liquor. An induced-draft fan constantly draws the vapor and entrained PM through an add-on PM control device. Woodland currently employs the use of a dynamic fan wet scrubber to control PM emissions. Scrubbing medium consisting of weak wash, clean condensate, and/or

fresh water is sprayed through the scrubber and allowed to drain directly into the SDT, where it reacts with smelt to form green liquor.

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The Department found that BACT for particulate emissions from the SDT is use of the existing dynamic wet scrubber and the following limits:

PM	0.127 lb/ton BLS and 14.2 lb/hr
PM_{10}	14.2 lb/hr
PM _{2.5}	13.5 lb/hr

b. Sulfur Compounds (SO₂ and TRS)

TRS emissions from the SDT primarily arise from the sulfides present in smelt and in weak wash. H_2S is the main compound present in gases produced from smelt dissolution itself, with typical concentrations measured in the range of 5 to 20 ppm. Although H_2S is generated by the shattering of smelt, if condensates containing reduced sulfur compounds are used in the recausticizing area, these reduced sulfur compounds could be present in the weak wash, providing greater potential for flashing off of these compounds during smelt dissolution. Methyl mercaptan, dimethyl sulfide, and dimethyl disulfide can be present in the SDT vent gases if they are present in the weak wash as a result of condensate reuse. Small amounts of SO_2 are also emitted from smelt dissolving tanks, potentially from oxidation of the sulfur in the smelt during the smelt-water reactions.

The Department found that BACT for SO₂ and TRS emissions from the SDT is use of the existing dynamic wet scrubber utilizing weak wash and condensate as the scrubbing medium and the following limits:

 TRS
 0.033 lb/ton BLS and 3.7 lb/hr

 SO2
 7.0 lb/hr

2. Emission Limits

The BACT emission limits for the SDT are the following:

Unit	Limit Units	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	TRS (lb/hr)
Smelt Dissolving	lb/hr	14.2	14.2	13.5	7.0	3.7
Tank	lb/ton BLS	0.127				0.033

Visible emissions from the SDT shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 3 B (4)]

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3. New Source Performance Standards (NSPS)

The SDT was previously subject to 40 C.F.R. Part 60, Subpart BB, *Standards of Performance for Kraft Pulp Mills*. Because this project results in a modification of the unit as defined in 40 C.F.R. § 60.2, the SDT is now instead subject to 40 C.F.R. Part 60, Subpart BBa, *Standards of Performance for Kraft Pulp Mill Affected Sources for Which Construction, Reconstruction, or Modification Commenced After May 23, 2013*. The applicable requirements of this Subpart are presented in section D below.

D. New Source Performance Standards (NSPS): 40 C.F.R. Part 60, Subpart BBa

Woodland shall comply with all requirements of 40 C.F.R. Part 60, Subpart BBa applicable to the #3 RB and the SDT including, but not limited to, the following:

1. Standards

a. Particulate Matter (PM)

The #3 RB and Smelt Dissolving Tank are subject to the following PM standards:

Unit	Standard	Citation
#3 RB	0.044 gr/dscf @ 8% O ₂	40 C.F.R. § 60.282a(a)(1)(i)
Smelt Dissolving Tank	0.2 lb/ton BLS	40 C.F.R. § 60.282a(a)(3)

These standards are less stringent than the BACT limits described above. Woodland Pulp shall meet Subpart BBa PM emission standards by complying with the established BACT limits.

b. Visible Emissions

Visible emissions from the #3 RB shall not exceed 20% on a 6-minute block average basis. Compliance with the visible emission limit shall be demonstrated with a continuous opacity monitoring system (COMS). The span of the COMS must be set at 70% opacity. The COMS shall be installed, certified, and operated in accordance with Performance Specification (PS) 1 in Appendix B to 40 C.F.R. Part 60. [40 C.F.R. § 60.282a(a)(1)(ii) and 60.284a(a)(1)]

Periods of excess opacity reported under 40 C.F.R. § 60.288a(a) are not considered to be indicative of a violation of the standards provided that all of the following conditions are met [40 C.F.R. §§ 60.284a(e)(1)(ii) and 60.284a(e)(2)]:

(1) No more than two percent of the total possible contiguous six-minute average opacity periods when BLS is fired in the semiannual reporting period exceed the 20% opacity limit;

(2) The ESP secondary voltage and secondary current (or total secondary power) averaged over the semiannual period remained above the minimum operating limits established during performance testing; and

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- (3) The #3 RB and associated air pollution control equipment is maintained and operated in a manner which is consistent with good air pollution control practices for minimizing emissions during periods of excess emissions.
- c. Total Reduced Sulfur (TRS)

The #3 RB and the SDT are subject to the following TRS standards:

Unit	Standard	Citation
#3 RB	5 ppmvd @ 8% O ₂	40 C.F.R. § 60.283a(a)(2)
Smelt Dissolving Tank	0.033 lb/ton BLS as H ₂ S	40 C.F.R. § 60.283a(a)(4)

Periods of TRS emissions from the #3 RB in excess of 5ppmvd corrected to 8% oxygen reported under 40 C.F.R. § 60.288a(a) are **not** considered to be indicative of a violation of the standards provided that all of the following conditions are met [40 C.F.R. §§ 60.284a(e)(1)(i) and 60.284a(e)(2)]:

- (1) No more than one percent of the total possible contiguous 12-hour average TRS periods in the semiannual reporting period exceed 30 ppm corrected to 8% oxygen; and
- (2) The #3 RB and associated air pollution control equipment is maintained and operated in a manner which is consistent with good air pollution control practices for minimizing emissions during periods of excess emissions.
- 2. Testing Requirements
 - a. #3 Recovery Boiler
 - Within 60 days after achieving the maximum production rate at which the #3 RB will be operated, but no later than 180 days after initial startup² following the modification, Woodland Pulp shall conduct an initial performance test to measure PM concentration using Method 5 of 40 C.F.R. Part 60, Appendix A-3. During the performance test, Woodland Pulp shall also measure condensable particulate matter using Method 202 of 40 C.F.R. Part 51, Appendix M. Woodland Pulp completed this initial performance testing on 11/4/2022. [40 C.F.R. §§ 60.8 and 60.285a(b)]

² For the purpose of Subpart BBa requirements, "Startup" is defined as the setting in operation of an affected facility for any purpose. [40 C.F.R. § 60.2]

(2) Within 60 days after achieving the maximum production rate at which the #3 RB will be operated, but no later than 180 days after initial startup following the modification, Woodland Pulp shall conduct an initial performance test to measure TRS concentration using Method 16 of 40 C.F.R. Part 60, Appendix A-6. The TRS concentration shall be corrected to the appropriate oxygen concentration using the procedure in 40 C.F.R. § 60.284a(c)(1)(iii). The sampling time must be for at least 3 hours but no longer than 6 hours.

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The oxygen concentration must be determined over the same time period as the TRS samples using the procedure of Method 3B of 40 C.F.R. Part 60, Appendix A-2.

Woodland Pulp completed this initial performance testing on 11/4/2022.

[40 C.F.R. §§ 60.8 and 60.285a(d)]

- (3) Woodland Pulp shall conduct repeat performance tests for filterable particulate matter and TRS on the #3 RB at intervals no longer than 5 years following the previous performance test. During the performance test for filterable PM, Woodland Pulp shall also measure condensable particulate matter using Method 202 of 40 C.F.R. Part 51, Appendix M. [40 C.F.R. §§ 60.285a(b)(4) and 60.285a(d)(4)]
- b. Smelt Dissolving Tank
 - (1) Within 60 days after achieving the maximum production rate at which the SDT will be operated, but no later than 180 days after initial startup following the modification, Woodland Pulp shall conduct an initial performance test to measure PM concentration using Method 5 of 40 C.F.R. Part 60, Appendix A-3. Woodland Pulp shall calculate the emission rate of filterable particulate matter using the procedures found in 40 C.F.R. § 60.285a(c). Woodland Pulp shall also measure condensable particulate matter using Method 202 of 40 C.F.R. Part 51, Appendix M. Woodland Pulp completed this initial performance testing on 11/3/2022. [40 C.F.R. §§ 60.8 and 60.285a(c)]
 - (2) Within 60 days after achieving the maximum production rate at which the SDT will be operated, but no later than 180 days after initial startup following the modification, Woodland Pulp shall conduct an initial performance test to compute the emission rate of TRS in lb/ton of BLS. Woodland Pulp shall use Method 16 of 40 C.F.R. Part 60, Appendix A-6 to determine the average combined concentration of TRS in ppm, and Method 2 of 40 C.F.R. Part 60, Appendix A-1 to determine the volumetric flow rate of the effluent gas. The emission rate shall be calculated using the following formula:

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 $E = C_{TRS} \times F \times Q_{SD}/P$

Where:

E = emission rate of TRS, g/kg (lb/ton) of BLS.

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 C_{TRS} = average combined concentration of TRS in ppm.

 $F = \text{conversion factor, } 0.001417 \text{ g } H_2\text{S}/\text{m}^3\text{-ppm} \\ (8.846 \text{ x } 10^{-8} \text{ lb } H_2\text{S}/\text{ft}^3\text{-ppm}).$

 Q_{SD} = volumetric flow rate of stack gas, dscm/hr (dscf/hr)

P = black liquor solids feed rate, kg/hr (ton/hr)

Woodland Pulp completed this initial performance testing on 11/3/2022.

[40 C.F.R. §§ 60.8 and 60.285a(e)]

- (3) Woodland Pulp shall conduct repeat performance tests for filterable particulate matter and TRS on the SDT at intervals no longer than 5 years following the previous performance test. During the performance test for filterable PM, Woodland Pulp shall also measure condensable particulate matter using Method 202 of 40 C.F.R. Part 51, Appendix M. [40 C.F.R. § 60.285a(c)(4)]
- 3. Monitoring Requirements
 - a. Woodland Pulp shall maintain and operate a continuous opacity monitoring system (COMS) and record the opacity of the gases discharged into the atmosphere from the #3 RB. The span of this system shall be set at 70% opacity. The COMS must be installed, certified, and operated in accordance with Performance Specification 1 in Appendix B to 40 C.F.R. Part 60. [40 C.F.R. § 60.284a(a)(1)]
 - b. Woodland Pulp shall maintain and operate continuous emission monitoring systems (CEMS) to monitor and record the concentration of TRS emissions on a dry basis and the percent oxygen by volume on a dry basis in the gases discharged into the atmosphere from the #3 RB. The continuous TRS monitoring system must be installed, certified, and operated in accordance with Performance Specification 5 in Appendix B to 40 C.F.R. Part 60. The continuous oxygen monitoring system must be installed, certified, and operated in accordance with Performance Specification 3 in Appendix B to 40 C.F.R. Part 60. The CEMS must be located downstream of the ESP. The range of the CEMS must encompass all expected concentration values, including the zero and span values used for calibration. The span of the TRS CEMS must be set at a concentration of 30 ppm. The span of the oxygen CEMS must be set at 21% oxygen. [40 C.F.R. § 60.284a(a)(2)]

Woodland Pulp shall calculate and record on a daily basis 12-hour average TRS concentrations for the two consecutive periods of each operating day. Each 12-hour average must be determined as the arithmetic mean of the appropriate 12 contiguous 1-hour average TRS concentrations provided by the continuous monitoring system. [40 C.F.R. 60.284a(c)(1)(i)]

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Woodland Pulp shall calculate and record 12-hour average oxygen concentrations corresponding to the 12-hour average TRS concentrations. The 12-hour averages shall be determined as an arithmetic mean of the appropriate 12 contiguous 1-hour average oxygen concentrations provided by the continuous monitoring system. [40 C.F.R. § 60.284a(c)(1)(ii)]

All 12-hour average TRS concentrations shall be corrected to 8% oxygen by volume according to the following equation:

 $C_{corr} = C_{meas} x [13/(21-Y)]$

Where:

 C_{corr} = the concentration corrected for oxygen.

 C_{meas} = the 12-hour average of the measured concentrations uncorrected for oxygen.

Y = the 12-hour average of the measured volumetric oxygen concentration.

[40 C.F.R. § 60.284a(c)(1)(iii)]

c. Woodland Pulp shall monitor and record the secondary voltage and secondary current of each collection field of the #3 RB ESP. Alternatively, Woodland may calculate the secondary power as the product of the secondary voltage and secondary current of each ESP collection field as a means of demonstrating compliance. [40 C.F.R. § 60.284a(b)(3)]

Values of ESP secondary voltage and secondary current shall be recorded at least once each successive 15-minute period. Woodland shall calculate semiannual averages from the recorded measurements of ESP parameters. [40 C.F.R. § 60.284a(c)(3)(ii)]

Additional performance testing may be used to reestablish ESP secondary voltage and secondary current minimums. [40 C.F.R. § 60.284a(c)(4)]

d. Woodland Pulp shall maintain and operate monitors for the continuous measurement of the pressure drop of the gas stream and scrubbing liquid flow rate

in the Smelt Dissolving Tank Scrubber. The pressure monitoring device must be certified by the manufacturer to be accurate to within a gage pressure of ± 500 Pascals (± 2 inches of water gage pressure). The device used for continuous measurement of the scrubbing liquid flow rate must be certified by the manufacturer to be accurate within $\pm 5\%$ of the design scrubbing liquid flow rate. [40 C.F.R. § 60.284a(b)(2)]

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The pressure drop and liquid flow rate shall be recorded at least once each successive 15-minute period. Woodland shall calculate 12-hour block averages from the recorded measurements of wet scrubber pressure drop and liquid flow rate. [40 C.F.R. \$ 60.284a(c)(3)(i)]

Woodland shall investigate the cause of deviations from the operating limits for these parameters established during performance testing within 24 hours, and initiate corrective action as needed. Additional performance testing may be used to reestablish operating limits for the pressure drop of the gas stream and scrubbing liquid flow rate.

[06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022) and 40 C.F.R. § 60.284a(c)(4)]

- e. During the initial performance tests required for the #3 RB and Smelt Dissolving Tank, Woodland Pulp shall establish site-specific operating limits for the monitoring parameters for the ESP secondary voltage, ESP secondary current, wet scrubber pressure drop, and wet scrubber liquid flow rate. The arithmetic average of the measured values for the three test runs shall establish the minimum operating limit for each ESP and wet scrubber parameter. Woodland Pulp may establish replacement operating limits for the monitoring parameters during subsequent performance tests. [40 C.F.R. § 60.284a(c)(4)]
- f. The continuous monitoring systems described above shall collect data at all required intervals at all times the affected units are operating except for periods of monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments. [40 C.F.R. § 60.284a(c)(5)]
- g. Data recorded during monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities may not be used in calculations used to report emissions or operating limits. All data collected during all other periods must be used in assessing the operation of the control device and associated control system. [40 C.F.R. § 60.482a(c)(6)]

- 4. Recordkeeping and Reporting
 - a. Woodland Pulp shall maintain records of the performance evaluations of the continuous monitoring systems associated with the #3 RB and Smelt Dissolving Tank. [40 C.F.R. § 60.287a(a)]

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- b. Woodland Pulp shall maintain records of the following information:
 - (1) Records of the opacity of gases discharged into the atmosphere from the #3 RB, and records of the ESP secondary voltage and secondary current (or total secondary power) averaged semiannually.
 - (2) Records of the concentration of TRS emissions on a dry basis and the percent of oxygen by volume on a dry basis in the gases discharged into the atmosphere from the #3 RB.
 - (3) Records of the pressure drop of the gas stream through the Smelt Dissolving Tank wet scrubber, and of the scrubbing liquid flow rate.
 - (4) Records of excess emissions as defined in 40 C.F.R. § 60.284a(d).
 - (5) Records of the occurrence and duration of each malfunction of operation or of the air pollution control and monitoring equipment, and of actions taken during periods of malfunction to minimize emissions.
 - [40 C.F.R. §§ 60.287a(b) and (c)]
- c. Woodland Pulp shall submit an excess emissions and monitoring systems performance report semiannually containing the following:
 - (1) The magnitude of all excess emissions computed in accordance with 40 C.F.R. § 60.13(h), any conversion factor(s) used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.
 - (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions.
 - (3) The nature and cause of any malfunction resulting in excess emissions, and the corrective action taken or preventative measures adopted.
 - (4) The date and time identifying each period during which a continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments.

(5) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

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[40 C.F.R. §§ 60.288a(a) and 60.284a(d)]

d. Woodland Pulp shall submit the results of each performance test required by 40 C.F.R. Part 60, Subpart BBa within 60 days after the completion of the test. Woodland Pulp shall use the latest version of EPA's Electronic Reporting Tool (ERT) existing at the time of the performance test to generate a submission package file documenting performance test data. The submission package file must then be submitted through EPA's Compliance and Emission Data Reporting Interface (CEDRI), which can be accessed through EPA's Central Data Exchange (CDX). [40 C.F.R. § 60.288a(b)]

Please note that per Standard Condition (8) of air emission license A-215-70-I-R/A, test results must be submitted to The Department within 30 days from the date of the test completion. [06-096 C.M.R. ch. 140]

e. Woodland Pulp shall submit relative accuracy test audit (RATA) data to the EPA's Central Data Exchange (CDX) within 60 days after the date of completing each CEMS performance evaluation test as defined in 40 C.F.R. § 60.13. [40 C.F.R. § 60.288a(c)]

Please note that per Standard Condition (8) of air emission license A-215-70-I-R/A, test results must be submitted to The Department within 30 days from the date of the test completion. [06-096 C.M.R. ch. 140]

- f. If a malfunction occurs during a reporting period, Woodland Pulp shall submit a report that contains the following:
 - (1) The number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded.
 - (2) A description of actions taken during a malfunction to minimize emissions in accordance with 40 C.F.R. § 60.11(d), including actions taken to correct a malfunction.
 - [40 C.F.R. § 60.288a(d)]

E. Fuel Changes

Woodland Pulp removed #6 fuel oil as a licensed fuel for the #3 RB, Lime Kiln, and #9 Power Boiler (A-215-77-18-A (1/5/2022)). The fuel oil infrastructure has been removed from the facility, and these emission units are no longer capable of receiving and firing fuel oil. The #3 RB has not fired fuel oil since it was converted to natural gas in May 2012. The Lime Kiln has not fired fuel oil since May 2011. The #9 Power Boiler has not fired fuel oil since July 2011.

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No changes in emission limits or other requirements for these units resulting from the removal of #6 fuel oil have been identified.

F. Backup Lime Kiln Auxiliary Drive Engine

The Backup Lime Kiln Auxiliary Drive Engine is rated at 0.7 MMBtu/hr and fires distillate fuel. The engine was manufactured in 1964. It is used as a backup, emergency engine.

1. Stationary Generators, 06-096 C.M.R. ch. 169

The Backup Lime Kiln Auxiliary Drive Engine was licensed prior to the effective date of *Stationary Generators*, 06-096 C.M.R. ch. 169 and is therefore exempt from this rule pursuant to Section 3(B).

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

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 C.F.R. Part 63, Subpart ZZZZ is applicable to the Backup Lime Kiln Auxiliary Drive Engine. The unit is considered an existing, emergency stationary reciprocating internal combustion engines (RICE) at a major HAP source and is 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 Engine Designation and Operating Criteria

Under Subpart ZZZZ, a stationary reciprocating internal combustion engine (RICE) is considered an **emergency** stationary RICE (emergency engine) as long as the engine is operated in accordance with the following criteria. Operation of an engine outside of the criteria specified below may cause the engine to no longer be considered an emergency engine under Subpart ZZZZ, resulting in the engine being subject to requirements applicable to **non-emergency** engines.

(1) Emergency Situation Operation (On-Site)

There is no operating time limit on the use of an emergency engine to provide electrical power or mechanical work during an emergency situation. Examples of use of an emergency engine during emergency situations include the following:

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- Use of an engine to produce power for critical networks or equipment (including power supplied to portions of a facility) because of failure or interruption of electric power from the local utility (or the normal power source, if the facility runs on its own power production);
- Use of an engine to mitigate an on-site disaster;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.
- (2) Non-Emergency Situation Operation

An emergency engine may be operated up to a maximum of 100 hours per calendar year for maintenance checks, readiness testing, and other non-emergency situations as described below.

- (i) An emergency engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE more than 100 hours per calendar year.
- (ii) An emergency engine may be operated for up to 50 hours per calendar year for other non-emergency situations. However, these operating hours are counted as part of the 100 hours per calendar year operating limit described in paragraph (2) and (2) (i) above.

The 50 hours per calendar year operating limit for other non-emergency situations cannot be used for peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

The Backup Lime Kiln Auxiliary Drive Engine shall be limited to the usage outlined in 40 C.F.R. § 63.6640(f) and therefore may be classified as an existing

emergency stationary RICE as defined in 40 C.F.R. Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in 40 C.F.R. § 63.6640(f) may cause this engine to not be considered an emergency engine and therefore subject to all applicable requirements for non-emergency engines.

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- b. 40 C.F.R. Part 63, Subpart ZZZZ Requirements
 - (1) Operation and Maintenance Requirements

For the Backup Lime Kiln Auxiliary Drive Engine, Woodland Pulp shall comply with the following requirements [40 C.F.R. § 63.6602 and Table 2(c)]:

- Change oil and filter every 500 hours of operation of annually, whichever comes first;
- Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

The engine shall be operated and maintained according to the manufacturer's emission-related written instructions, or Woodland Pulp 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 C.F.R. § 63.6625(e)]

(2) Optional Oil Analysis Program

Woodland Pulp has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, Woodland Pulp must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 C.F.R. § 63.6625(i)]

(3) Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. \$ 63.6625(f)]

(4) Startup Idle and Startup Time Minimization Requirements

During periods of startup, the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate

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and safe loading of the engine, not to exceed 30 minutes. [40 C.F.R. § 63.6625(h) and 40 C.F.R. Part 63, Subpart ZZZZ Table 2c]

(5) Annual Time Limit for Maintenance and Testing

As an emergency engine, the unit shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). [40 C.F.R. § 63.6640(f)]

(6) Recordkeeping

Woodland Pulp shall keep records that include maintenance conducted on the engine and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [40 C.F.R. § 63.6655(f)]

- 3. Emission Limits and Streamlining
 - a. Criteria Pollutants

For the Backup Lime Kiln Auxiliary Drive Engine, a listing of potentially applicable emission standards, the origin and authority of the standards, and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
РМ	0.21 lb/hr	06-096 C.M.R. ch. 115, BACT (A-215-77-19-A, 8/23/2022)	0.21 lb/hr
PM_{10}	0.21 lb/hr	06-096 C.M.R. ch. 115, BACT (A-215-77-19-A, 8/23/2022)	0.21 lb/hr
SO ₂	Negligible (based on 0.0015% sulfur limit, by weight)	06-096 C.M.R. ch. 115, BACT (A-215-77-19-A, 8/23/2022)	Negligible
NO _X	3.02 lb/hr	06-096 C.M.R. ch. 115, BACT (A-215-77-19-A, 8/23/2022)	3.02 lb/hr
СО	0.65 lb/hr	06-096 C.M.R. ch. 115, BACT (A-215-77-19-A, 8/23/2022)	0.65 lb/hr
VOC	0.24 lb/hr	06-096 C.M.R. ch. 115, BACT (A-215-77-19-A, 8/23/2022)	0.24 lb/hr

b. Visible Emissions

Visible emissions from the Backup Lime Kiln Auxiliary Drive Engine shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time Woodland Pulp shall either meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard.

- (1) The duration of the startup shall not exceed 30 minutes per event;
- (2) Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
- (3) Woodland Pulp shall keep records of the date, time, and duration of each startup.

Use of the work practice standards and alternative visible emissions standard in lieu of the normal operating standard is limited to no more than once per day.

Note: This does not limit the engine to one startup per day. It only limits the use of the alternative emission standard to once per day.

[06-096 C.M.R. ch. 101, § 4.A.(4)]

4. Emission Limit Compliance Methods

Compliance with the emission limits associated with the Backup Lime Kiln Auxiliary Drive Engine shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

G. Tissue Machines

1. Equipment Description

TM1 and TM2 are identical LDC tissue machines, each with a nominal production capacity of 187 air-dried tons per day (ADTPD). Each machine utilizes a Yankee dryer, which includes a large steam-heated drum and a hood in which hot air, produced by two 25 MMBtu/hr (each) natural gas-fired burners, impinges on the paper sheet. The dried tissue web is removed from the Yankee cylinder by a doctor blade which forms the creped structure of the tissue paper. The finished tissue paper is then wound onto spools to form parent rolls of tissue. The parent rolls are wrapped and stored prior to converting into the final product.

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Both TM1 and TM2 have multiple exhaust points to the atmosphere as well as fugitive emissions. Exhaust points include vacuum pump stacks and mist stacks on the wet end, dust stacks, and Yankee hood stacks.

- <u>Wet end exhaust points</u>: Although VOC emissions may occur at vacuum pump stacks and mist stacks, neither the applicant not the Department is aware of data that indicates the potential for other pollutants to be emitted in a fugitive manner from wet-end exhaust points of tissue machines of this type.
- <u>Dust stacks</u>: The dust stacks collect exhaust emissions from the doctor blade at the Yankee drum and the reel. The TM1 dust stack is equipped with a venturi scrubber. The TM2 dust stack is currently equipped with a cyclone separator, but that will be replaced by a venturi scrubber as part of this project. The dust stacks from TM1 and TM2 currently exhaust at 97.3 feet above ground level (AGL) but will be raised to approximately 126 feet AGL and 148 feet AGL, respectively, as part of this project.
- <u>Yankee hood stacks</u>: The Yankee hood stacks exhaust the products of combustion from the natural gas-fired burners in the Yankee dryer. The Yankee hood stacks from TM1 and TM2 currently exhaust at 97.3 feet AGL but will be raised to approximately 126 feet AGL and 148 feet AGL, respectively.

TM3 will be a through-air-dried (TAD) tissue machine with a nominal production capacity between 250 and 366 ADTPD of tissue depending on the product grade being manufactured. Woodland expects TM3 will produce an average of 305.2 ADTPD of tissue on an annual basis. TM3 will utilize two TAD cylinders to remove moisture from the product by blowing hot air through the tissue web. TAD Cylinder 1 will be heated by a 100 MMBtu/hr natural gas-fired burner, and TAD Cylinder 2 will be heated by a 41 MMBtu/hr natural gas-fired burner. From the TAD cylinders, the tissue web will then be adhered to a steam-heated Yankee cylinder using an adhesive (glue). Like the LDC process of TM1 and TM2, the dried paper web will be removed from the Yankee

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cylinder by a doctor blade, wound onto spools to form parent rolls, and wrapped and stored for converting.



TM3 will have multiple exhaust points, including a Wet End Exhaust Stack, TAD Mist Exhaust Stack, TAD1 and TAD2 Stacks, Wet Dust Collection System Stack, and Glue Shield Exhaust.

- The Wet End Exhaust Stack and TAD Mist Exhaust Stack will both collect warm and humid air generated at the wet end of TM3 which will pass through a droplet separator before being discharged to atmosphere.
- The TAD1 and TAD2 Stacks will exhaust the products of combustion from the natural gas-fired burners heating the TAD cylinders.
- The Wet Dust Collection System Stack will serve numerous dust collectors located around the dry end of TM3.
- The Glue Shield Exhaust Stack will capture glue overspray at the Yankee cylinder and will be equipped with a droplet separator.
- 2. Best Available Control Technology (BACT)

BACT for the Tissue Machines was addressed in NSR A-215-77-20-A (5/25/2023).

a. Particulate Matter (PM/PM₁₀/PM_{2.5})

PM emissions from tissue machines are generated by combustion and process sources. Emissions of PM from natural gas combustion are generally minimal and are comprised of fine filterable and condensable PM. PM emissions can result from carryover of noncombustible trace constituents in the fuel and from products of incomplete combustion. PM emissions are also generated by the tissue making process itself in which dust particles are freed from the paper web during drying and while the dried sheet is removed from the Yankee cylinder by the doctor blade.

The Department found BACT for PM, PM_{10} , and $PM_{2.5}$ emissions from TM1, TM2, and TM3 to be the use of a venturi-style wet scrubber to control PM, PM_{10} , and $PM_{2.5}$ emissions from the dust collection stacks on TM1, TM2, and TM3; cyclone

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droplet separators to control PM, PM_{10} , and $PM_{2.5}$ emissions from the noncombustion associated stacks on TM3; and the emission limits in the table below.

b. Sulfur Dioxide (SO₂)

Emissions of SO_2 from the tissue machines are attributable to the oxidation of sulfur compounds contained in the natural gas used to generate hot air in the Yankee hood and TADs.

The Department found BACT for SO_2 emissions from TM1, TM2, and TM3 to be the use of natural gas in the burners associated with the tissue machines, which has an inherently low sulfur content, and the emission limits listed in the table below.

c. Nitrogen Oxides (NO_x)

Emissions of NO_x from the tissue machines are attributable to the combustion of natural gas in the Yankee hood burners of TM1 and TM2 and the TAD burners in TM3. NO_x from the combustion process is generated through one of three mechanisms: fuel NO_x, thermal NO_x, and prompt NO_x. Fuel NO_x is produced by the oxidation of nitrogen in the fuel source, with low nitrogen content fuels such as distillate fuel and natural gas producing less NO_x than fuels with higher levels of fuel-bound nitrogen. Thermal NO_x forms in the high temperature area of the combustor and increases exponentially with increases in flame temperature and linearly with increases in residence time. Flame temperature is dependent upon the ratio of fuel burned in a flame to the amount of fuel needed to consume all the available oxygen, also known as the equivalence ratio. The lower this ratio is, the lower the flame temperature; thus, by maintaining a low fuel ratio (lean combustion), the potential for NO_x formation can be reduced. In most modern burner designs, the high temperature combustion gases are cooled with dilution air. The sooner this cooling occurs, the lower the formation of thermal NO_x . Prompt NO_x forms from the oxidation of hydrocarbon radicals near the combustion flame; this produces an insignificant amount of NO_x.

The Department found BACT for NO_x emissions to be the use of low NO_x burners on TM1 and TM2, the use of ultra-low NO_x burners on TM3, firing natural gas, and the emission limits listed in the table below.

d. Carbon Monoxide (CO)

Emissions of CO from the Tissue Machines are attributable to the incomplete combustion of organic compounds contained in the natural gas fired in the Yankee hood burners and TAD burners. CO is also generated in the papermaking process itself when paper dust and VOC-containing additives are subjected to high temperatures in the burners. The amount of CO generated in this manner is highly variable and dependent on the additive chemistry as well as the amount of paper dust generated by the paper making process.

The Department found BACT for CO emissions from TM1, TM2, and TM3 to be good combustion practices and the CO emission limits listed in the table below.

e. Volatile Organic Compounds (VOC)

Emissions of VOC from the tissue machines can be attributed to many different sources. Small amounts of VOC are present in the water carrying the pulp to the tissue machines and dryers and can be released as the water is removed from the sheet. The most often detected compound is methanol, a byproduct of chemical and mechanical pulping and bleaching processes. VOC are most often present in papermaking additives (defoamers, slimicides, retention aids, wet strength agents, wire and felt cleaners, etc.) and can be released during the papermaking process. On tissue machines with direct-fired dryers, VOC are also emitted from fuel combustion.

The Department found BACT for VOC emissions from TM1, TM2, and TM3 to be good combustion practices, chemical recordkeeping, and the use of low-VOC additives when possible, and the VOC emission limits listed in the table below.

f. Greenhouse Gases (GHG)

The natural gas-fired burners associated with TM1, TM2, and TM3 will emit GHG, most notably carbon dioxide (CO_2), but also methane (CH_4) and nitrous oxide (N_2O) as byproducts of combustion.

The Department found that BACT for GHG emissions from TM1, TM2, and TM3 to be the use of natural gas and employing good operating and maintenance practices. Good operating and maintenance practices include maintaining burners according to manufacturer recommendations, including conducting routine tune-ups, maintaining proper use of the burner management system, and conducting routine inspection and repair/replacement of key components.

3. Emission Limits

The BACT emission limits for the Tissue Machines and associated dryers firing natural gas are the following:

	PM	PM ₁₀	PM _{2.5}	SO ₂	NOx	СО
Unit	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
TM1	2.15	1.86	1.39	0.03	4.50	4.12
TM2	2.15	1.86	1.39	0.03	4.50	4.12
TM3	8.15	7.26	5.13	0.09	5.10	5.20

Process-related VOC emissions from each of the Tissue Machines shall not exceed 1.0 lb/ADT of finished product. Combined VOC emissions from all three Tissue Machines, from both process- and combustion-related emissions, shall not exceed 130 TPY on a 12-month rolling total basis.

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4. Visible Emissions

Visible emissions from each exhaust point associated with TM1, TM2, and TM3 shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(4)]

5. Emission Limit Compliance Methods

Compliance with the emission limits associated with TM1, TM2, and TM3 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. Unless otherwise stated in the table below, for TM1, TM2, and TM3, source testing shall be conducted simultaneously on each of the stacks identified below. The sum of the source test results from each stack shall be used to demonstrate compliance.

- TM1: Dust Stack, Yankee Hood Stack
- TM2: Dust Stack, Yankee Hood Stack
- TM3: Wet End Exhaust Stack, TAD Mist Exhaust Stack, TAD1 Stack, TAD2 Stack, Wet Dust Collection System Stack, and Glue Shield Exhaust Stack

	Applicable		
Pollutant	Emission Limit	Compliance Method	Frequency
РМ	lb/hr	Source testing conducted in accordance with 40 C.F.R. Part 60, App. A, Method 5	As requested
PM ₁₀ /PM _{2.5}	lb/hr	Source testing conducted in accordance with 40 C.F.R. Part 60, App. A, Method 5 and Method 202 assuming 40% of filterable PM is PM ₁₀ and 20% is PM _{2.5}	As requested

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Pollutant	Applicable Emission Limit	Compliance Method	Frequency		
NO _x	lb/hr	Source testing conducted in accordance with 40 C.F.R. Part 60, App. A, Method 7 Source testing for NO _x is only required on the TM1 Yankee Hood Stack, TM2 Yankee Hood Stack and TM3 TAD1	As requested		
со	lb/hr	and TAD2 Stacks. Source testing conducted in accordance with 40 C.F.R. Part 60, App. A, Method 10 Source testing for CO is only required on the TM1 Yankee Hood Stack, TM2 Yankee Hood Stack and TM3 TAD1 and TAD2 Stacks	As requested		
VOC	ton/yr	Process VOC: Recordkeeping of chemicals/additives including the % VOC content, and records of paper production Combustion VOC: Recordkeeping of natural gas used by dryer burners on TM1, TM2 and TM3 and applying an emission factor of 5.5 lb VOC/MMScf sourced from U.S. EPA AP-42 Table 1 4-2	Monthly		

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6. Parameter Monitoring

During all operating times, Woodland shall monitor the flow rate through, and pressure drop across each venturi scrubber.

- 7. Periodic Monitoring
 - a. Periodic monitoring for the control equipment associated with the Tissue Machines shall include the following, as applicable:

(1) Monthly inspections of the wet dust collection systems, venturi scrubbers, and cyclone droplet separators on each tissue machine;

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- (2) Recordkeeping to document all maintenance, malfunctions, inspections, and downtime of the wet dust collection systems, venturi scrubbers, and cyclone droplet separators on each tissue machine; and
- (3) Recordkeeping of the flow rate through and pressure drop across each venturi scrubber at least once per shift.
- b. Periodic monitoring for all three Tissue Machines shall include the following:
 - (1) Monthly records of the amount of each VOC-containing chemical/additive used on each machine;
 - (2) Records of the amount of VOC in each chemical additive used;
 - (3) Monthly records of the amount (ADT) of finished tissue product produced on each machine;
 - (4) Monthly and 12-month rolling total calculations used to demonstrate compliance with the process related ton per year VOC emission limit; and
 - (5) Monthly records of fuel use for each tissue machine.
- 8. Regulatory Applicability
 - a. Federal Regulations
 - (1) New Source Performance Standards

New Source Performance Standards (NSPS) require new, modified, or reconstructed individual industrial or source categories to control emissions to the level achievable by the best-demonstrated technology. Sources subject to an NSPS are also subject to the general provisions established in *General Provisions*, 40 C.F.R. Part 60, Subpart A.

There are no NSPS applicable to the Tissue Machines or their natural gas-fired dryers.

(2) National Emission Standards for Hazardous Air Pollutants

National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations establish emission standards for air pollutants not covered by the National Ambient Air Quality Standards (NAAQS), primarily hazardous air pollutants (HAP). The standards for source categories establish requirements for the installation of the maximum achievable control technology (MACT), as determined by the United States Environmental Protection Agency (EPA).

There are no NESHAP applicable to the Tissue Machines or their natural gasfired dryers.

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- b. State Regulations
 - (1) Visible Emissions Regulation, 06-096 C.M.R. ch. 101

The Tissue Machines are subject to *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101. This chapter establishes opacity limitations for emissions from several categories of air contaminant sources. The applicable requirements are included in the BACT determination.

(2) Fuel Burning Equipment Particulate Emission Standard, 06-096 C.M.R. ch. 103

The Tissue Machines are not subject to *Fuel Burning Equipment Particulate Emission Standard*, 06-096 C.M.R. ch. 103, which applies to all fuel burning equipment that has a rated heat input capacity of 3 MMBtu/hr or greater. The natural gas-fired Yankee hood and through-air dryers on TM1, TM2, and TM3 have rated heat input capacities greater than 3 MMBtu/hr but do not meet the definition of "fuel burning equipment" as defined in 06-096 C.M.R. ch. 100; therefore, the dryers are not subject to 06-096 C.M.R. ch. 103.

(3) General Process Source Particulate Emission Standard, 06-096 C.M.R. ch. 105

The Tissue Machines are subject to *General Process Source Particulate Emission Standard*, 06-096 C.M.R. ch. 105, which applies to any source except fuel-burning equipment, incinerators, mobile sources, open burning sources, and sources of fugitive dust; and establishes a limitation on the amount of particulate emissions allowed from the source determined on the basis of the size and rate at which the process operates. The Tissue Machines have the potential to generate PM emissions and are therefore subject to the applicable limitations in Table 105A of 06-096 C.M.R. ch. 105; however, the emission limits proposed as BACT are more stringent. The limits provided by 06-096 C.M.R. ch. 105 shall be streamlined to the units' BACT PM emission limits.

(4) Control of Volatile Organic Compounds from Adhesives and Sealants, 06-096 C.M.R. ch. 159

The adhesive used to adhere tissue web to the Yankee cylinder is subject to *Control of Volatile Organic Compounds from Adhesives and Sealants*, 06-096 C.M.R. ch. 159, which applies to the use or application for

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compensation any adhesive, sealant, adhesive primer, or sealant primer within Maine. The applicable requirements are included below in section II.I.

H. Converting Facility

NSR license A-215-77-20-A (5/25/2023) authorized the addition of converting operations that will include five new converting lines. The converting lines will process tissue "parent" rolls from TM1, TM2, and TM3 using a series of rewinder/slitting machines which cut/slice the parent rolls into narrower widths and then package the product with wrapping and containerboard for shipment to customers.

The converting department will consist of paper core manufacturing activities and laminating/ply-bonding of embossed, multi-layered tissue products. Paper core manufacturing activities take place within a web coating line where paper core stock is drawn from one or more rolls and glue is continuously applied along its length and overlapped to form the round paper cores. The embossing operation imposes a raised or depressed impression on a paper web by passing the web between two steel rolls or plates, one of which is engraved. Laminating/ply-bonding of embossed, multi-layered paper follows the embossing for the creation of multi-ply products. During this process, adhesive is applied by a roller to bind multiple layers of substrate together.

Each of the converting lines will use either a pulse-jet baghouse or a drum filtering system to collect dust generated from the unwind reels, the embosser/laminator, and the rewinder. The exhaust air from each filtering system will be recycled back into the converting building as clean supply air, and as a result, there will be no PM, PM₁₀, or PM_{2.5} emissions directly discharged to the atmosphere from this process.

VOC are emitted from converting operations when VOC-containing adhesives are used. While the specific converting chemicals and annual quantities used have not yet been specified, Woodland has obtained information from prospective suppliers stating that the chemicals will not contain HAP. Woodland utilized emission estimates from similar sources and based on these estimates, has proposed to limit VOC emissions from the converting operations to no more than 10 tons per year on a 12-month rolling total basis.

Woodland shall demonstrate compliance with the Converting Facility annual VOC emission limit by maintaining records of the types and amounts of each VOC-containing adhesive used, the VOC contents of those adhesives, and calculations of VOC emissions from the converting operations on a monthly and 12-month rolling total basis.

National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating, 40 C.F.R. Part 63, Subpart JJJJ regulates HAP emissions from paper and other web coating lines at facilities that are major sources of HAP. Because adhesives will be applied to the tissue web on each of the converting lines, the proposed converting operations at Woodland will be subject to this regulation. However, if all the web coating

lines at Woodland utilize non-HAP coatings, Woodland can become exempt from the reporting requirements of Subpart JJJJ after submitting a one-time report documenting the use of only non-HAP coatings. Woodland intends to use non-HAP containing adhesives on its converting lines. Woodland will submit the one-time notification exempting converting operations from Subpart JJJJ requirements.

Control of Volatile Organic Compounds from Adhesives and Sealants, 06-096 C.M.R. ch. 159 regulates the emissions of VOC from adhesives, sealants, and primers. Because adhesives will be used in the proposed converting operations, Woodland is subject to this regulation. The applicable requirements are included below in section II.I.

I. Control of Volatile Organic Compounds from Adhesives and Sealants, 06-096 C.M.R. ch. 159

Control of Volatile Organic Compounds from Adhesives and Sealants, 06-096 C.M.R. ch. 159 is applicable to facilities that use or apply for compensation any adhesive, sealant, adhesive primer, or sealant primer within Maine. Woodland has proposed the use of adhesives as part of the operation of the TM3 Yankee cylinder and as part of the converting operations. Woodland shall comply with the requirements of 06-096 C.M.R. ch. 159 including, but not limited to, the following:

- 1. Woodland shall not use or apply for compensation any adhesive, sealant, adhesive primer, or sealant primer manufactured on or after January 1, 2011, in excess of the applicable VOC content limits specified in Table 1 of 06-096 C.M.R. ch. 159. [06-096 C.M.R. ch. 159, § 2(B)]
- 2. Woodland shall maintain records demonstrating compliance with applicable limits. Records shall include the following information:
 - a. A list of each adhesive, sealant, adhesive primer, sealant primer cleanup solvent, and surface preparation solvent in use and in storage;
 - b. A data sheet or material list which provides the material name, manufacturer identification, and material application;
 - c. Catalysts, reducers, or other components used and the mix ratio;
 - d. The VOC content of each product as supplied;
 - e. The final VOC content or vapor pressure, as applied; and
 - f. The annual volume of each adhesive, sealant, adhesive primer, sealant primer, or cleanup or surface preparation solvent used or purchased.

[06-096 C.M.R. ch. 159, § 4(A)]

3. All records made to determine compliance with ch. 159 requirements shall be maintained for five years from the date such record is created and shall be made

available to the Department within 90 days of a request. [06-096 C.M.R. ch. 159, § 4(C)]

Please note that per Standard Condition (6) of air emission license A-215-70-I-R/A, records shall be maintained for at least six years from the date such record is created. [06-096 C.M.R. ch. 140]

4. These requirements do not apply to any adhesives and sealants that contain less than 20 grams of VOC per liter of adhesive or sealant, less water and less exempt compounds, as applied. [06-096 C.M.R. ch. 159, § 3(A)(3)]

J. #9 Power Boiler and Lime Kiln PM_{2.5} Limits

As part of NSR license A-215-77-20-A (5/25/2023), Woodland Pulp performed a refined modeling analysis to determine the facility's impact on ambient air quality. Emission limits for PM_{2.5} were proposed for the #9 Power Boiler and Lime Kiln as emission limits for PM_{2.5} have not previously been established. The table below summarizes Woodland Pulp's proposed PM_{2.5} emission limits. These emission limits were used in the refined modeling analysis in support of the Tissue Machine project.

Pollutant	Unit	Emission Limit
DM	#9 Power Boiler	76.0 lb/hr
P1V12.5	Lime Kiln	15.0 lb/hr

The Department has determined that inclusion of the additional requirements listed above for $PM_{2.5}$ emissions from #9 Power Boiler and the Lime Kiln are appropriate for demonstrating compliance with NAAQS and Class I and II Increment Standards.

K. Facility Annual Emissions

The table below provides an estimate of facility-wide annual emissions for the purposes of calculating the facility's annual air license fee and establishing the facility's potential to emit (PTE). Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included except when required by state or federal regulations. Maximum potential emissions were calculated based on the following assumptions:

- Operating the Tissue Machines, #9PB, #3RB, SDT, Lime Kiln, and Natural Gas Heater for 8,760 hours/year (each);
- Operating the Lime Kiln Auxiliary Drive Engine, Backup Lime Kiln Auxiliary Drive Engine, and #1 and #2 Fire Pumps for 100 hour/year, each; and
- Operating the Portable Package Boiler for six weeks (42 days) per year.

This information does not represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

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Total Licensed Annual Emissions for the Facility Tons/year

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC	TRS
Tissue Machines	54.5	48.1	0.7	61.8	58.9	129.8	
Converting Operations						10.0	
#9 Power Boiler	355.0	355.0	676.0	780.0	5,008.8	130.0	
#3 Recovery Boiler	214.6	214.6	1,117.0	727.1	1,879.0	176.1	28.6
Smelt Dissolving Tank	62.2	62.2	30.7				16.2
Lime Kiln	87.0	87.0	35.0	175.0	1,750.0		
Package Boiler	56.0	56.0	9.9	5.6	1.4	0.1	
Emergency Engines	0.1	0.1		1.3	0.2	0.1	
Natural Gas Heater	0.7	0.7		1.3	1.1	0.1	
Total TPY	830.1	823.7	1,869.3	1,752.1	8,699.4	446.2	44.8

(used to calculate the annual license fee)

III.AMBIENT AIR QUALITY ANALYSIS

Woodland Pulp 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 (see NSR license A-215-77-20-A, issued on 5/25/2023). 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 the Part 70 License Amendment A-215-70-S-A pursuant to 06-096 C.M.R. 140 and the preconstruction permitting requirements of *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115 and subject to the conditions found in Air Emission License A-215-70-I-R/A; in amendments A-215-70-K-A, A-215-70-L-A, A-215-70-M-A, A-215-70-N-A, A-215-70-P-A, and A-215-70-R-A; and the following conditions.

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Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in 06-096 C.M.R. ch. 115 for making such changes and pursuant to the applicable requirements in 06-096 C.M.R. ch. 140.

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

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

SPECIFIC CONDITIONS

The following shall replace Condition (14)J of Air Emission Licenses A-215-70-I-R/A and A-215-70-K-A:

(14) **#9 Power Boiler**

- J. Woodland Pulp may demonstrate compliance with NO_x emission limits using an emissions averaging basis, with CEM data. The emissions averaging shall be calculated between the #9 Power Boiler and #3 Recovery Boiler on an equivalent lb/MMBtu or ppmv on a 24-hour daily block arithmetic basis. The emission averaging basis shall be calculated as follows:
 - 1. Calculate the over-controlled NO_x level from #3 Recovery Boiler by subtracting the #3 Recovery Boiler actual NO_x ppmvd corrected for O₂ from the LAER limit (85 ppmvd corrected for 8% O₂);
 - 2. Convert over-controlled NO_x level from #3 Recovery Boiler from ppmvd to lb/hr;
 - 3. Convert over-controlled NO_x level from #3 Recovery Boiler from lb/hr to lb/MMBtu;
 - 4. Subtract over-controlled NO_x level from #3 Recovery Boiler (in lb/MMBtu) from actual 24-hour average (lb/MMBtu) on #9 Power Boiler and compare this value with NO_x RACT lb/MMBtu limit (0.4 lb/MMBtu) to determine compliance.

This method can also be used to allow over-controlled NO_x emissions from #9 Power Boiler to be averaged with NO_x emissions from #3 Recovery Boiler. [06-096 ch. 140, BPT]

If a CEM is used to demonstrate compliance with NO_x emission limits, then periods of startup, shutdown, malfunction, and fuel switching are not included in the 24-hour average emission rates, provided that records are maintained to show the facility was operated to minimize emissions. [06-096 C.M.R. ch. 138 § (3)(O)]

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The following shall replace Condition (15) of Air Emission Licenses A-215-70-I-R/A, A-215-70-K-A, and A-215-70-P-A:

(15) **#3 Recovery Boiler**

- A. Allowable Fuels
 - 1. The #3 RB is licensed to fire black liquor, natural gas, synthetic natural gas, propane, low volume, high concentration (LVHC) non-condensable gases (NCG), high volume, low concentration (HVLC) NCG, and stripper off-gases (SOG). [06-096 C.M.R ch. 115, BACT (A-215-77-18-A, 1/5/2022)]
 - 2. Woodland Pulp shall not exceed an annual capacity factor of 10% for natural gas in the #3 RB on a 12-month rolling total basis. Compliance with this capacity factor shall be demonstrated by fuel use records showing the quantity and heating value of natural gas fired, and calculations of the total heat input updated on a monthly and 12-month rolling total basis. [40 C.F.R. § 60.49b(d)(1) and 06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)]
- B. Control Equipment

Woodland Pulp shall control PM, PM_{10} , and $PM_{2.5}$ emissions from the #3 RB by use of a two-chamber dry ESP. See Part K of this condition for scenarios in which the ESP can be operated with only a single chamber in use. Woodland Pulp shall maintain records of all maintenance performed on the ESP, as well as records documenting the nature of all failures and corrective actions taken. [06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)]

- C. #3 Recovery Boiler Emission Limits (Emission limits are on a 1-hour block average basis unless otherwise stated.)
 - 1. Emissions from the #3 Recovery Boiler shall not exceed the following limits:

Pollutant	gr/dscf @ 8% O2	ppmvd @ 8% O2	lb/hr	Origin and Authority
РМ	0.021		49.0	06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)
PM ₁₀	0.021		49.0	06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)
PM _{2.5}	0.021		49.0	06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)
SO ₂		150.0 (30-day rolling avg.)	392.0	06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)

Pollutant	gr/dscf @ 8% O ₂	ppmvd @ 8% O ₂	lb/hr	Origin and Authority
NOx		85.0 (24-hr block avg.) ^a	166.0 (24-hr block avg.) ^b 200.0	06-096 C.M.R. ch. 115, LAER (A-215-77-18-A, 1/5/2022)
СО		300.0 (30-day rolling avg.)	429.0 (24-hr block avg., no single hour exceeding 2,200 lb/hr)	06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)
VOC			40.2	06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)
TRS		5.0 (12-hr block avg.) ^c		40 C.F.R. § 60.283a(a)(2)

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^a See Condition (14)J of this Air Emission License for an alternative to this limit.

- ^b See Condition (16) for alternatives to this limit by averaging emissions with the #9 Power Boiler.
- ^c The first two 12-hour block averages in a calendar quarter which exceed 5 ppm are not considered violations of 06-096 C.M.R. ch. 124 or this license.
- D. The 30-day rolling averages shall be calculated and updated for each calendar day the boiler operates, as described in 40 CFR, Part 60, Method 19 (equation 19-19). [06-096 CMR 140, BPT]
- E. Visible Emissions

Visible emissions from the #3 RB shall not exceed 20% opacity on a 6-minute block average basis. Compliance shall be demonstrated by use of a continuous opacity monitoring system (COMS). [40 C.F.R. §§ 60.282a(a)(1)(ii) and 60.284a(a)(1)]

- F. Woodland Pulp shall record CEMS data for SO₂ and NO_X on the #3 Recovery Boiler, on a lb/hr basis. [6-096 C.M.R. ch. 115, BPT (A-215-71-B-A/R, 5/22/1987)]
- G. The existing NO_x CEMS shall be used to demonstrate compliance with the 166.0 lb/hr 24-hr block average emission limit and the 85 ppmvd 24-hr block average emission limit. [06-096 C.M.R. ch. 115, LAER (A-215-77-18-A, 1/5/2022)]
- H. Woodland shall demonstrate compliance with the 200.0 lb/hr 1-hr NO_x emission limit by stack testing upon request by the Department using appropriate test methods as approved by the Department. [06-096 C.M.R. ch. 115, LAER (A-215-77-18-A, 1/5/2022)]

I. Woodland Pulp shall not exceed the 1-hour SO₂ emission limit for the #3RB, except for 300 hours per calendar year, in which case a combined SO₂ emissions limit with the #9 Power Boiler of 793.04 lb/hr, on a 3-hour block average basis, may be utilized. See Condition (18) of license A-215-70-I-R/A (11/18/2011). [6-096 C.M.R. ch. 115, BPT (A-215-71-B-A/R, 5/22/1987)]

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- J. Woodland Pulp shall record hourly total NO_X emissions in lb/hr, shall record daily total NO_X emissions in lb/day, and shall record monthly (calendar month) the total NO_X emissions for the most recent 12 months for the #3 Recovery Boiler. This data shall be used to calculate the total facility NO_X emissions for Condition 16 of license A-215-70-I-R/A (11/18/2011) as amended in license A-215-70-K-A (4/23/2012). [06-096 C.M.R. ch. 115, BPT (A-215-71-B-A/R, 5/22/1987)]
- K. Operation of the #3 Recovery Boiler with only one ESP chamber in operation shall not exceed the maximum firing rate established through EPA reference test method 5 at which 0.021 gr/dscf and 49.0 lb/hr of PM emissions shall not be exceeded. [06-096 C.M.R. ch. 140, BPT]
- L. Woodland Pulp shall maintain records of startup, shutdown, and malfunction (SSM) for the #3 Recovery Boiler and maintain an SSM plan pursuant to 40 CFR, Part 63, Subpart MM.
- M. Woodland Pulp shall operate a COMS to monitor opacity from the #3 Recovery Boiler pursuant to 40 CFR, Part 63, Subpart MM.
- N. Periodic Monitoring

Woodland Pulp shall record data and maintain records for the following periodic monitoring values for the #3 Recovery Boiler as indicated in the following table whenever the equipment is operating. [06-096 C.M.R. ch. 140, BPT]

Parameter	Record		
Black liquor firing rate	24-hr average		

- O. The #3 Recovery Boiler shall vent through a 275 ft AGL (Above Ground Level) stack. [06-096 C.M.R. ch. 115, BPT (A-215-71-B-A/R, 5/22/1987)]
- P. The #3 Recovery Boiler is subject to 40 CFR, Part 60, Subparts A, BBa, and Db, as well as 40 CFR, Part 63, Subparts A, S, and MM.
- Q. When #3 RB is firing only natural gas, the ESP is not required to be in operation. [06-096 CMR 140, BPT]

R. 40 C.F.R. Part 60, Subpart Db

Woodland Pulp shall comply with all requirements of 40 C.F.R. Part 60, Subpart Db applicable to the #3 Recovery Boiler including, but not limited to, the following:

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1. General Recordkeeping Requirements

All records required under 40 C.F.R. Part 60, Subpart Db shall be maintained for a period of two years following the date of such record. [40 C.F.R. § 60.49b(o)]

Please note that Standard Condition (6) of Woodland Pulp's Part 70 air emission license (A-215-70-I-R/A, issued 11/18/2011) requires that records of monitoring data and supporting information be retained for at least six years from the date of the monitoring sample, measurement, report, or application.

2. Annual Capacity Factor

Woodland Pulp shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor, as defined in 40 C.F.R. § 60.41b and Section III.B.4. of this document, for natural gas for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 C.F.R. § 60.49b(d)(1)]

The following shall replace Condition (16)A of Air Emission License A-215-70-I-R/A and (16)B of Air Emission License A-215-70-K-A:

(16) Combined lb/hr Emissions From #3 Recovery Boiler and #9 Power Boiler

- A. When NO_X emissions from the #3 Recovery Boiler are greater than 166 lb/hr on a 24-hour block average basis, a combined limit of 352 lb/hr on a 24-hour average for #3 Recovery Boiler and #9 Power Boiler shall apply. These alternative limits may not be used more than 60 times per year (12 month rolling total). [06-096 C.M.R. ch. 140, BPT]
- B. When NO_x emissions from the #9 Power Boiler are greater than 186 lb/hr on a 24-hour block average basis, a combined NO_x emission limit of 352 lb/hr on a 24-hour average for the #3 Recovery Boiler and #9 Power Boiler shall apply. This alternative limit may not be used more than 5 times per year (12-month rolling total). During such periods, Woodland Pulp shall keep records detailing the use of these limits, including a 12-month rolling total. Woodland Pulp shall still meet the BACT limits of 85.0 ppmv on a dry basis corrected to 8% O₂ on a 24-hour block average basis for the #3 Recovery

Boiler, except that it may utilize the emissions averaging allowed in condition (14)J of Air Emission License A-215-70-K-A (04/23/2012) to meet such ppmv limits. [06-096 C.M.R. ch. 140, BPT]

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The following shall replace Condition (19) of Air Emission License A-215-70-I-R/A:

(19) Smelt Dissolving Tank

A. Emissions from the Smelt Dissolving Tank shall not exceed the following [06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)]:

Unit	Limit Units	PM (lb/hr)	PM ₁₀ (lb/hr)	PM2.5 (lb/hr)	SO2 (lb/hr)	TRS (lb/hr)
Smelt Dissolving	lb/hr	14.2	14.2	13.5	7.0	3.7
Tank	lb/ton BLS	0.127				0.033

- B. Visible emissions from the Smelt Dissolving Tank shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4 B (1)]
- C. The smelt dissolving tank shall vent through a 232 ft AGL stack. [06-096 C.M.R. ch. 140, BPT]
- D. Woodland Pulp shall operate a wet scrubber whenever the Smelt Dissolving Tank is in operation. [06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)]
- E. Woodland Pulp shall perform regular inspections of the scrubber during recovery boiler outages and maintain records documenting such inspections and any maintenance conducted on the scrubber during the outage or at any other time. [06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022)]
- F. Woodland Pulp shall operate a continuous monitoring system that can be used to determine and record the pressure drop across the scrubber and the scrubber fluid flow rate at least once every successive 15-minute period in accordance with 40 CFR, Part 63.8(c). [40 C.F.R. § 63.864(e)(10)]
- G. The monitoring used for continuous measurement of the pressure drop of the gas stream across the scrubber must be certified by the manufacturer to be accurate within a gauge pressure of ±500 pascals (±2 inches of water gauge pressure).
 [40 C.F.R. § 63.864(e)(10)(i)]
- H. The monitoring device used for continuous measurement of the scrubbing liquid flow rate must be certified by the manufacturer to be accurate within ± 5 percent of the design scrubbing liquid flow rate. [40 C.F.R. § 63.864(e)(10)(ii)]

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Condition (23) of Air Emission License A-215-70-I-R/A is deleted.

The following shall replace Condition (30)A of Air Emission License A-215-70-I-R/A:

(30) Low Volume, High Concentration Collection and Control System

A. The digester and evaporator systems shall be vented to the LVHC system when the units are in use as specified in 40 CFR Part 63, Subpart S and 06-096 CMR 124 of the Department's regulations, with the #9 Power Boiler as the primary incineration unit and the #3 Recovery Boiler as the back-up incineration unit. [40 CFR Part 63, Subpart S and 06-096 CMR 124]

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The following are new conditions:

(50) **Backup Lime Kiln Auxiliary Drive Engine**

- A. Allowable Operation and Fuels
 - 1. The Backup Lime Kiln Auxiliary Drive Engine is licensed to fire distillate fuel. [06-096 C.M.R ch. 115, BACT (A-215-77-19-A, 8/23/2022)]
 - 2. The Backup Lime Kiln Auxiliary Drive Engine shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R ch. 115, BACT (A-215-77-19-A, 8/23/2022)]
- B. Fuel Sulfur Content

The fuel sulfur content for the Backup Lime Kiln Auxiliary Drive Engine shall be limited to 0.0015% sulfur by weight. Compliance shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the tank containing the fuel to be fired. [06-096 C.M.R ch. 115, BACT (A-215-77-19-A, 8/23/2022)]

C. Emissions shall not exceed the following limits [06-096 C.M.R ch. 115, BACT (A-215-77-19-A, 8/23/2022)]:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Backup Lime						
Kiln Auxiliary	0.21	0.21	neg.	3.02	0.65	0.24
Drive Engine						

D. Visible Emissions

Visible emissions from the Backup Lime Kiln Auxiliary Drive Engine shall not exceed 20 percent opacity on a six-minute block average basis.

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During periods of startup the unit must meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard. Use of the following work practice standards and alternative visible emissions standard in lieu of the normal operating visible emissions standard is limited to no more than once per day.

Work practice standards and alternative visible emissions standard:

- 1. The duration of the startup shall not exceed 30 minutes per event;
- 2. Visible emissions shall not exceed 50 percent opacity on a six (6) minute block average basis; and
- 3. Woodland Pulp shall keep records sufficient to document the date, time, and duration of each startup for which these work practice standards and alternative visible emissions standard are used. These records shall be maintained for at least six years and provided to the Department upon request.

[06-096 C.M.R. ch. 101, § 4.A.(4)]

E. The Backup Lime Kiln Auxiliary Drive Engine shall meet the applicable requirements of 40 C.F.R. Part 63, Subpart ZZZZ, including, but not limited to, the following:

- 1. Woodland Pulp shall meet the following operational limitations for the Backup Lime Kiln Auxiliary Drive Engine:
 - a. Change the oil and filter every 500 hours of operation or annually, whichever comes first;
 - b. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c. Inspect the hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Records shall be maintained documenting compliance with the operational limitations.

[40 C.F.R. § 63.6602 and Table 2(c); and 06-096 C.M.R. ch. 140]

2. Oil Analysis Program Option

Woodland Pulp has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change

requirement. If this option is used, Woodland Pulp must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for each engine. [40 C.F.R. § 63.6625(i)]

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- Non-Resettable Hour Meter A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 63.6625(f)]
- 4. Maintenance, Testing, and Non-Emergency Operating Situations
 - a. As an emergency engine, the unit shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise to supply power as part of a financial arrangement with another entity). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written logs) of all engine operating hours. [40 C.F.R. § 63.6640(f) and 06-096 C.M.R. ch. 140, BPT]
 - b. Woodland Pulp shall keep records that include maintenance conducted on the engine and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [40 C.F.R. §§ 63.6655(e) and (f)]
- 5. Operation and Maintenance

The engine shall be operated and maintained according to the manufacturer's emission-related written instructions, or Woodland Pulp shall develop a maintenance plan which provides 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 C.F.R. § 63.6625(e)]

6. Startup Idle and Startup Time Minimization During periods of startup, the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 C.F.R. § 63.6625(h) and 40 C.F.R. Part 63, Subpart ZZZZ Table 2c]

(51) New Source Performance Standards (NSPS): 40 C.F.R. Part 60, Subpart BBa

Woodland Pulp shall comply with all requirements of 40 C.F.R. Part 60, Subpart BBa applicable to the #3 RB and Smelt Dissolving Tank including, but not limited to, the following:

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A. Visible emissions from the #3 RB shall not exceed 20% on a six-minute block average basis. Compliance with the visible emission limit shall be demonstrated with a continuous opacity monitoring system (COMS). The span of the COMS must be set at 70% opacity. The COMS shall be installed, certified, and operated in accordance with Performance Specification (PS) 1 in Appendix B to 40 C.F.R. Part 60. [40 C.F.R. §§ 60.282a(a)(1)(ii) and 60.284a(a)(1)]

Periods of excess opacity reported under 40 C.F.R. § 60.288a(a) are not considered to be indicative of a violation of the standards provided that all of the following conditions are met [40 C.F.R. §§ 60.284a(e)(1)(ii) and 60.284a(e)(2)]:

- 1. No more than two percent of the total possible contiguous six-minute average opacity periods when BLS is fired in the semiannual reporting period exceed the 20% opacity limit;
- 2. The ESP secondary voltage and secondary current (or total secondary power) averaged over the semiannual period remained above the minimum operating limits established during performance testing; and
- 3. The #3 RB and associated air pollution control equipment is maintained and operated in a manner which is consistent with good air pollution control practices for minimizing emissions during periods of excess emissions.
- B. PM emissions from the #3 RB and Smelt Dissolving Tank shall not exceed the following:

Unit	Standard	Citation
#3 RB	0.044 gr/dscf @ 8% O ₂	40 C.F.R. § 60.282a(a)(1)(i)
Smelt Dissolving Tank	0.2 lb/ton BLS	40 C.F.R. § 60.282a(a)(3)

C. TRS emissions from the #3 RB and Smelt Dissolving Tank shall not exceed the following:

Unit	Standard	Citation
#3 RB	5 ppmvd @ 8% O ₂	40 C.F.R. § 60.283a(a)(2)
Smelt Dissolving Tank	0.033 lb/ton BLS as H ₂ S	40 C.F.R. § 60.283a(a)(4)

Periods of TRS emissions from the #3 RB in excess of 5 ppmvd corrected to 8% oxygen reported under 40 C.F.R. § 60.288a(a) are not considered to be indicative of a violation

of the standards provided that all of the following conditions are met [40 C.F.R. §§ 60.284a(e)(1)(i) and 60.284a(e)(2)]:

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- 1. No more than one percent of the total possible contiguous 12-hour average TRS periods in the semiannual reporting period exceed 30 ppm corrected to 8% oxygen; and
- 2. The #3 RB and associated air pollution control equipment is maintained and operated in a manner which is consistent with good air pollution control practices for minimizing emissions during periods of excess emissions.
- D. Testing Requirements
 - 1. #3 Recovery Boiler
 - a. Woodland Pulp shall conduct performance tests to measure filterable PM concentration at intervals no more than 5 years following the previous performance test. Woodland Pulp shall measure filterable PM concentrations using Method 5 of 40 C.F.R. Part 60, Appendix A-3. During the performance test, Woodland Pulp shall also measure condensable particulate matter using Method 202 of 40 C.F.R. Part 51, Appendix M. [40 C.F.R. §§ 60.8 and 60.285a(b)]
 - b. Woodland Pulp shall conduct performance tests to measure TRS concentration at intervals no more than 5 years following the previous performance test. Woodland Pulp shall measure TRS concentrations using Method 16 of 40 C.F.R. Part 60, Appendix A-6. The TRS concentration must be corrected to the appropriate oxygen concentration using the procedure in 40 C.F.R. § 60.284a(c)(1)(iii). The sampling time must be at least 3 hours, but no longer than 6 hours.

The oxygen concentration must be determined over the same time period as the TRS samples using the procedure of Method 3B of 40 C.F.R. Part 60, Appendix A-2.

[40 C.F.R. §§ 60.8 and 60.285a(d)]

- 2. Smelt Dissolving Tank
 - a. Woodland Pulp shall conduct performance tests to measure filterable PM concentration from the Smelt Dissolving Tank at intervals no longer than 5 years following the previous performance test. Woodland Pulp shall measure filterable PM concentrations using Method 5 of 40 C.F.R. Part 60, Appendix A-3. Woodland Pulp shall calculate the emission rate of filterable PM using the procedures found in 40 C.F.R. § 60.285a(c). Woodland Pulp shall also measure

condensable particulate matter using Method 202 of 40 C.F.R. Part 51, Appendix M. [40 C.F.R. §§ 60.8 and 60.285a(c)]

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b. Woodland Pulp shall conduct performance tests to compute the emission rate of TRS from the Smelt Dissolving Tank in lb/ton of BLS at intervals no longer than 5 years following the previous performance test. Woodland Pulp shall use Method 16 of 40 C.F.R. Part 60, Appendix A-6 to determine the average combined concentration of TRS in ppm, and Method 2 of 40 C.F.R. Part 60, Appendix A-1 to determine the volumetric flow rate of the effluent gas. The emission rate shall be calculated using the following formula: [40 C.F.R. §§ 60.8 and 60.285a(e)]

 $E = C_{TRS} \times F \times Q_{SD}/P$

Where:

E = emission rate of TRS, g/kg (lb/ton) of BLS

 C_{TRS} = average combined concentration of TRS in ppm

 $F = \text{conversion factor, } 0.001417 \text{ g } \text{H}_2\text{S/m}^3\text{-ppm}$ (8.846 x 10⁻⁸ lb H₂S/ft³-ppm)

 Q_{SD} = volumetric flow rate of stack gas, dscm/hr (dscf/hr)

P = black liquor solids feed rate, kg/hr (ton/hr)

E. Monitoring Requirements

- 1. Woodland Pulp shall maintain and operate a continuous opacity monitoring system (COMS) and record the opacity of the gases discharged into the atmosphere from the #3 RB. The span of this system shall be set at 70% opacity. The COMS must be installed, certified, and operated in accordance with Performance Specification 1 in 40 C.F.R. Part 60, Appendix B. [40 C.F.R. § 60.284a(a)(1)]
- 2. Woodland Pulp shall maintain and operate continuous emission monitoring systems (CEMS) to monitor and record the concentration of TRS emissions on a dry basis and the percent oxygen by volume on a dry basis in the gases discharged into the atmosphere from the #3 RB. The continuous TRS monitoring system must be installed, certified, and operated in accordance with Performance Specification 5 in Appendix B to 40 C.F.R. Part 60. The continuous oxygen monitoring system must be installed, certified, and operated in accordance with Performance Specification 5 in Appendix B to 40 C.F.R. Part 60. The continuous oxygen monitoring system must be installed, certified, and operated in accordance with Performance Specification 3 in 40 C.F.R. Part 60, Appendix B. The CEMS must be located downstream of the ESP. The range of the CEMS must encompass all expected concentration values, including the zero and span values used for calibration. The

span of the TRS CEMS must be set at a concentration of 30 ppm. The span of the oxygen CEMS must be set at 21% oxygen. [40 C.F.R. § 60.284a(a)(2)]

Woodland Pulp shall calculate and record on a daily basis 12-hour average TRS concentrations for the two consecutive periods of each operating day. Each 12-hour average must be determined as the arithmetic mean of the appropriate 12 contiguous 1-hour average TRS concentrations provided by the continuous monitoring system. [40 C.F.R. § 60.284a(c)(1)(i)]

Woodland Pulp shall calculate and record 12-hour average oxygen concentrations corresponding to the 12-hour average TRS concentrations. The 12-hour averages shall be determined as an arithmetic mean of the appropriate 12 contiguous 1-hour average oxygen concentrations provided by the continuous monitoring system. [40 C.F.R. § 60.284a(c)(1)(ii)]

All 12-hour average TRS concentrations shall be corrected to 8% oxygen by volume according to the following equation:

 $C_{corr} = C_{meas} x [13/(21-Y)]$

Where:

 C_{corr} = the concentration corrected for oxygen.

 C_{meas} = the 12-hour average of the measured concentrations uncorrected for oxygen.

Y = the 12-hour average of the measured volumetric oxygen concentration.

[40 C.F.R. § 60.284a(c)(1)(iii)]

3. Woodland Pulp shall monitor and record the secondary voltage and secondary current of each collection field of the #3 RB ESP. Alternatively, Woodland may calculate the secondary power as the product of the secondary voltage and secondary current of each ESP collection field as a means of demonstrating compliance. [40 C.F.R. § 60.284a(b)(3)]

Values of ESP secondary voltage and secondary current shall be recorded at least once each successive 15-minute period. Woodland shall calculate semiannual averages from the recorded measurements of ESP parameters. [40 C.F.R. § 60.284a(c)(3)(ii)]

Additional performance testing may be used to reestablish ESP secondary voltage and secondary current minimums. [40 C.F.R. § 60.284a(c)(4)]

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4. Woodland Pulp shall maintain and operate monitors for the continuous measurement of pressure drop of the gas stream and scrubbing liquid flow rate in the Smelt Dissolving Tank Scrubber. The pressure monitoring device must be certified by the manufacturer to be accurate to within a gage pressure of ± 500 Pascals (± 2 inches of water gage pressure). The device used for continuous measurement of the scrubbing liquid flow rate must be certified by the manufacturer to be accurate within $\pm 5\%$ of the design scrubbing liquid flow rate. [40 C.F.R. § 60.284a(b)(2)]

The pressure drop and liquid flow rate shall be recorded at least once each successive 15-minute period. Woodland shall calculate 12-hour block averages from the recorded measurements of wet scrubber pressure drop and liquid flow rate. [40 C.F.R. \$ 60.284a(c)(3)(i)]

Woodland shall investigate within 24 hours the cause of deviations from the operating limits for these parameters established during performance testing, and initiate corrective action as needed. Additional performance testing may be used to reestablish operating limits for the pressure drop of the gas stream and scrubbing liquid flow rate. [06-096 C.M.R. ch. 115, BACT (A-215-77-18-A, 1/5/2022) and 40 C.F.R. § 60.284a(c)(4)]

- 5. During the initial performance tests required for the #3 RB and Smelt Dissolving Tank, Woodland Pulp shall establish site-specific operating limits for the monitoring parameters for the ESP secondary voltage, ESP secondary current, wet scrubber pressure drop, and wet scrubber liquid flow rate. The arithmetic average of the measured values for the three test runs shall establish the minimum operating limit for each ESP and wet scrubber parameter. Woodland Pulp may establish replacement operating limits for the monitoring parameters during subsequent performance tests. [40 C.F.R. § 60.284a(c)(4)]
- 6. The continuous monitoring systems shall collect data at all required intervals at all times the affected units are operating except for periods of monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments. [40 C.F.R. § 60.284a(c)(5)]
- 7. Data recorded during monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities may not be used in calculations used to report emissions or operating limits. All data collected

during all other periods must be used in assessing the operation of the control device and associated control system. [40 C.F.R. § 60.482a(c)(6)]

- F. Recordkeeping and Reporting
 - 1. Woodland Pulp shall maintain records of the performance evaluations of the continuous monitoring systems associated with the #3 RB and Smelt Dissolving Tank. [40 C.F.R. § 60.287a(a)]
 - 2. Woodland Pulp shall maintain records of the following information:
 - a. Records of the opacity of gases discharged into the atmosphere from the #3 RB, and records of the ESP secondary voltage and secondary current (or total secondary power) averaged semiannually.
 - b. Records of the concentration of TRS emissions on a dry basis and the percent of oxygen by volume on a dry basis in the gases discharged into the atmosphere from the #3 RB.
 - c. Records of the pressure drop of the gas stream through the Smelt Dissolving Tank wet scrubber, and of the scrubbing liquid flow rate.
 - d. Records of excess emissions as defined in 40 C.F.R. § 60.284a(d).
 - e. Records of the occurrence and duration of each malfunction of operation or of the air pollution control and monitoring equipment, and of actions taken during periods of malfunction to minimize emissions.

[40 C.F.R. §§ 60.287a(b) and (c)]

- 3. Woodland Pulp shall submit an excess emissions and monitoring systems performance report semiannually containing the following:
 - a. The magnitude of excess emissions computed in accordance with 40 C.F.R. § 60.13(h), any conversion factor(s) used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.
 - b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions.
 - c. The nature and cause of any malfunction resulting in excess emissions, and the corrective action taken or preventative measures adopted.

d. The date and time identifying each period during which a continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments.

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e. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

[40 C.F.R. §§ 60.288a(a) and 60.284a(d)]

4. Woodland Pulp shall submit the results of each performance test required by 40 C.F.R. Part 60, Subpart BBa within 60 days after the completion of the test. Woodland Pulp shall use the latest version of EPA's Electronic Reporting Tool (ERT) existing at the time of the performance test to generate a submission package file documenting performance test data. The submission package file must then be submitted through EPA's Compliance and Emission Data Reporting Interface (CEDRI), which can be accessed through EPA's Central Data Exchange (CDX). Federally enforceable. [40 C.F.R. § 60.288a(b)]

Please note that test results must be submitted to The Department within 30 days from the date of the test completion. **Enforceable by State-only.** [06-096 C.M.R. ch. 140]

5. Woodland Pulp shall submit relative accuracy test audit (RATA) data to the EPA's Central Data Exchange (CDX) within 60 days after the date of completing each CEMS performance evaluation test as defined in 40 C.F.R. § 60.13. Federally enforceable. [40 C.F.R. § 288a(c)]

Please note that test results must be submitted to The Department within 30 days from the date of the test completion. **Enforceable by State-only.** [06-096 C.M.R. ch. 140]

- 6. If a malfunction occurs during a reporting period, Woodland Pulp shall submit a report that contains the following:
 - a. The number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded.
 - b. A description of actions taken during a malfunction to minimize emissions in accordance with 40 C.F.R. § 60.11(d), including actions taken to correct a malfunction.

[40 C.F.R. § 60.288a(d)]

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(52) **Tissue Machines (TM1, TM2, and TM3)**

- A. Control Equipment
 - 1. TM1, TM2, and TM3 shall be equipped with venturi-style wet scrubbers on the exhaust streams leading to the TM1 and TM2 Dust Stacks and the TM3 Wet Dust Collection System Stack. Additionally, TM3 shall be equipped with cyclone droplet separators on the Wet End Exhaust, TAD Mist Exhaust, and Glue Shield Exhaust stacks. These controls shall be operated whenever the associated tissue machine is in operation. [06-096 C.M.R. ch. 115, BACT (A-215-77-20-A, 5/25/2023)]

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- 2. The venturi-style wet scrubber shall be installed on TM2 as soon as is practicable but in no case later than May 25, 2025. [06-096 C.M.R. ch. 115, BACT (A-215-77-20-A, 5/25/2023)]
- 3. The TM1 and TM2 Dryer Burners shall utilize low NO_x burners for control of NO_x. The TM3 TAD1 and TAD2 Dryers shall utilize ultra-low NO_x burners for control of NO_x. Woodland shall maintain the burners according to manufacturer recommendations, including conducting routine tune-ups, maintaining proper use of the burner management system, and conducting routine inspections and repair/replacement of key components. [06-096 C.M.R. ch. 115, BACT (A-215-77-20-A, 5/25/2023)]
- B. Stack Height
 - Woodland shall increase the height of the Dust Stack and Yankee Hood Stack of TM1 to at least 126 feet AGL. Woodland shall increase the height of the Dust Stack and Yankee Hood stack of TM2 to at least 148 feet AGL. These stacks currently have a height of 97.3 feet AGL; therefore, an additional 28.7 feet of stack length must be added to these TM1 stacks and an additional 50.7 feet must be added to these TM2 stacks. The stack modifications shall be completed within 24 months after the date that Woodland commences construction on TM3. [06-096 C.M.R. ch. 115, BACT (A-215-77-20-A, 5/25/2023)]
 - The TM3 TAD1 Stack, TAD2 Stack, Wet End Exhaust Stack, TAD Mist Exhaust Stack, Wet Dust Collection System Stack, and Glue Shield Exhaust Stack shall each be a minimum of 165 feet AGL. [06-096 C.M.R. ch. 115, BACT (A-215-77-20-A, 5/25/2023)]
- C. Emission Limits
 - 1. Emissions from the Tissue Machines and associated dryers shall not exceed the following [06-096 C.M.R. ch. 115, BACT (A-215-77-20-A, 5/25/2023)]:

Unit	PM (lb/br)	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO
UIII						$(\mathbf{ID}/\mathbf{III})$
TM1	2.15	1.86	1.39	0.03	4.50	4.12
TM2	2.15	1.86	1.39	0.03	4.50	4.12
TM3	8.15	7.26	5.13	0.09	5.10	5.20

- 2. Process VOC emissions from each of the Tissue Machines shall not exceed 1.0 lb/ADT of finished product. Combined VOC emissions from the Tissue Machines, from both process and combustion emissions, shall not exceed 130 TPY on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT (A-215-77-20-A, 5/25/2023)]
- 3. Visible emissions from each exhaust point associated with TM1, TM2, and TM3 shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(4)]
- D. Emission Limit Compliance Methods

Compliance with the emission limits associated with TM1, TM2, and TM3 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. Unless otherwise stated in the table below, for TM1, TM2, and TM3, source testing shall be conducted simultaneously on each of the stacks identified below. The sum of the source test results from each stack shall be used to demonstrate compliance.

- TM1: Dust Stack, Yankee Hood Stack
- TM2: Dust Stack, Yankee Hood Stack
- TM3: Wet End Exhaust Stack, TAD Mist Exhaust Stack, TAD1 Stack, TAD2 Stack, Wet Dust Collection System Stack, and Glue Shield Exhaust Stack

Pollutant	Applicable Emission Limit	Compliance Method	Frequency
РМ	lb/hr	Source testing conducted in accordance with 40 C.F.R. Part 60, App. A, Method 5	As requested
PM ₁₀ /PM _{2.5}	lb/hr	Source testing conducted in accordance with 40 C.F.R. Part 60, App. A, Method 5 and Method 202 assuming 40% of filterable PM is PM_{10} and 20% is $PM_{2.5}$	As requested

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Pollutant	Applicable Emission Limit	Compliance Method	Frequency		
		Source testing conducted in accordance with 40 C.F.R. Part 60, App. A, Method 7			
NOx	lb/hr	Source testing for NOx is only required on the TM1 Yankee Hood Stack, TM2 Yankee Hood Stack and TM3 TAD1 and TAD2 Stacks.	As requested		
		Source testing conducted in accordance with 40 C.F.R. Part 60, App. A, Method 10			
СО	lb/hr	Source testing for CO is only required on the TM1 Yankee Hood Stack, TM2 Yankee Hood Stack and TM3 TAD1 and TAD2 Stacks.	As requested		
		Process VOC: Recordkeeping of chemicals/additives including the % VOC content, and records of paper production			
VOC	ton/yr	Combustion VOC: Recordkeeping of natural gas used by dryer burners on TM1, TM2 and TM3 and applying an emission factor of 5.5 lb VOC/MMScf sourced from U.S. EPA AP-42 Table 1.4-2.	Monthly		

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[06-096 C.M.R. ch. 115, BACT (A-215-77-20-A, 5/25/2023)]

E. Parameter Monitoring

During all operating times, Woodland shall monitor the flow rate through and pressure drop across each venturi scrubber. [06-096 C.M.R. ch. 115, BACT (A-215-77-20-A, 5/25/2023)]

- F. Periodic Monitoring
 - 1. Periodic monitoring for the control equipment associated with the Tissue Machines shall include the following [06-096 C.M.R. ch. 115 (A-215-77-20-A, 5/25/2023)]:

a. Monthly inspections of the wet dust collection systems, venturi scrubbers, and cyclone droplet separators on each tissue machine;

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- b. Recordkeeping to document all maintenance, malfunctions, inspections, and downtime of the wet dust collection systems, venturi scrubbers, and cyclone droplet separators on each tissue machine; and
- c. Recordkeeping of the flow rate through and pressure drop across each venturi scrubber at least once per shift.
- 2. Periodic monitoring for all three Tissue Machines shall include the following [06-096 C.M.R. ch. 115 (A-215-77-20-A, 5/25/2023)]:
 - a. Monthly records of the amount of each VOC-containing chemical/additive used on each machine;
 - b. Records of the amount of VOC in each chemical additive used;
 - c. Monthly records of the amount (ADT) of finished tissue product produced on each machine;
 - d. Monthly and 12-month rolling total calculations used to demonstrate compliance with the process related ton per year VOC emission limit; and
 - e. Monthly records of fuel use for each tissue machine.

(53) **Converting Facility**

- A. VOC emissions from the converting operations shall not exceed 10 tons/year on a 12-month rolling total basis. Woodland Pulp shall demonstrate compliance with this emission limit by maintaining records of the types and amounts of each VOC containing adhesive used, the VOC contents of those adhesives, and calculations of VOC emissions from the converting operations on a monthly and 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT (A-215-77-20-A, 5/25/2023)]
- B. Woodland Pulp shall submit a one-time report upon startup of the converting facility documenting the use of only non-HAP coatings in the web coating lines as described in 40 C.F.R. Part 63, Subpart JJJJ. The report shall demonstrate that all of the coatings applied at all of the web coating lines have organic HAP contents below 0.1% by mass for OSHA-defined carcinogens as specified in section A.6.4 of Appendix A to 29 C.F.R. § 1910.1200, and below 1.0% by mass for other organic HAP compounds using the following procedures:
 - 1. Determine the organic HAP mass fraction of each coating material "as purchased" by following one of the procedures in 40 C.F.R. § 63.3360(c)(1) through (3) and determine the organic HAP mass fraction of each coating material "as applied" by following the procedures in 40 C.F.R. § 63.3360(c)(4).
 - 2. Submit a report certifying that all coatings applied at all of the web coating lines are non-HAP coatings.

3. Maintain records of coating formulations used as required in 40 C.F.R. § 63.3410(a)(1)(iii).

If any of the coating formulations are modified to exceed the above HAP thresholds, or new coatings which exceed the above HAP thresholds are used, Woodland shall comply with all applicable reporting requirements of 40 C.F.R. Part 63, Subpart JJJJ.

[40 C.F.R. §§ 63.3300(j) and 63.3370(s)]

(54) Control of Volatile Organic Compounds from Adhesives and Sealants, 06-096 C.M.R. ch. 159

- A. Woodland shall not use or apply for compensation any adhesive, sealant, adhesive primer, or sealant primer manufactured on or after January 1, 2011, in excess of the applicable VOC content limits specified in Table 1 of 06-096 C.M.R. ch. 159. [06-096 C.M.R. ch. 159, § 2(B)]
- B. Woodland shall maintain records demonstrating compliance with applicable limits. Records shall include the following information:
 - 1. A list of each adhesive, sealant, adhesive primer, sealant primer cleanup solvent, and surface preparation solvent in use and in storage;
 - 2. A data sheet or material list which provides the material name, manufacturer identification and material application;
 - 3. Catalysts, reducers, or other components used and the mix ratio;
 - 4. The VOC content of each product as supplied;
 - 5. The final VOC content or vapor pressure, as applied; and
 - 6. The annual volume of each adhesive, sealant, adhesive primer, sealant primer, cleanup or surface preparation solvent used or purchased.

[06-096 C.M.R. ch. 159, § 4(A)]

C. All records made to determine compliance with ch. 159 requirements shall be maintained for five years from the date such record is created and shall be made available to the Department within 90 days of a request. [06-096 C.M.R. ch. 159, § 4(C)]

Please note that per Standard Condition (6) of air emission license A-215-70-I-R/A, records shall be maintained for at least six years from the date such record is created. [06-096 C.M.R. ch. 140]

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D. These requirements do not apply to any adhesives and sealants that contain less than 20 grams of VOC per liter of adhesive or sealant, less water and less exempt compounds, as applied. [06-096 C.M.R. ch. 159, § 3(A)(3)]

(55) NAAQS and Class I and II Increment Standards Compliance

Emissions from the Lime Kiln shall not exceed the following when firing natural gas or propane:

Pollutant	lb/hr	Origin and Authority
PM _{2.5}	15.0	A-215-77-20-A (5/25/2023)

Emissions from the #9 Power Boiler shall not exceed the following when firing natural gas or propane in combination with other fuels:

Pollutant	lb/hr	Origin and Authority
PM _{2.5}	76.0	A-215-77-20-A (5/25/2023)

done and dated in Augusta, maine this 20^{th} day of NOVEMBER, 2024.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:___ MELANIE LOYZIM, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-215-70-I-R/A.

for

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: <u>May 25, 2021; August 1, 2022; July 22, 2022</u> Date of application acceptance: <u>June 7, 2021; August 1, 2022; August 4, 2022</u>

This Order prepared by Benjamin Goundie, Bureau of Air Quality.