ADEQ **OPERATING** AIR PERMIT

Pursuant to the Regulations of the Arkansas Operating Air Permit Program, Regulation 26:

Permit No.: 0271-AOP-R7 Renewal #1 IS ISSUED TO:

Potlatch Forest Products Corporation - Cypress Bend Mill Highway 4 North, near Rowher McGehee, AR 71654 **Desha County** AFIN: 21-00036

THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE PERMIT APPLICATION AND ON THE FOLLOWING PAGES. THIS PERMIT IS **VALID BETWEEN:**

AND

4/13/2010 4/14/2005 THE PERMITTEE IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN. Signed:

Mike Bates Date Modified Chief, Air Division

AFIN: 21-00036

Table of Contents

SECTION I: FACILITY INFORMATION	5
SECTION II: INTRODUCTION	6
Summary of Permit Activity	6
Process Description	6
Regulations	7
Emission Summary	
SECTION III: PERMIT HISTORY	15
SECTION IV: SPECIFIC CONDITIONS	21
Power Utilities	21
SN-04 Power Boiler	21
SN-13 Package Boiler	25
Pulp Mill Operations	
SN-14F Pulping Material Storage Piles	
SN-15 Batch Digesters	30
SN-10 Brown Stock Washers	33
Bleach Plant Operations	36
SN-06 Bleach Plant Scrubber	
SN-07 Chlorine Dioxide Generator	39
Recovery Process	41
SN-02 Recovery Furnace	41
SN-03 Smelt Dissolving Tank	47
SN-01 Lime Kiln	
NESHAP Subpart MM Requirements	
SN-12 Lime Bin Loading	
Paper Operations	
SN-11 Board Machine Vents	
Wastewater Treatment Operations	
SN-08 Waste Water Treatment System	
Tanks, Landfill, and Miscellaneous Operations	
SN-21 and SN-22 Weak Black Liquor Tanks	
SN-24 Methanol Tank	
SN-25 Green Liquor Storage Tank	
SN-26 White Liquor Storage Tank	
SN-05 NCG Thermal Oxidizer	
SN-16F and SN-27F Pulp Storage Chests and Hardwood High Density Tower	
SN-17F Landfill Operations	
SN-28 Multi-use Tank	
SN-29 NCG Collection System.	
SN-30a through SN-30f Temporary Package Boilers	
SN-31 and SN-32 Auxiliary Liquor Tanks and Intermediate Liquor Tank	
SN-33 Pet Coke Storage Silo	85
SECTION V: COMPLIANCE PLAN AND SCHEDULE	
SECTION VI: PLANTWIDE CONDITIONS	88

Standards of Performance for Enclosures and Closed Vent Systems	89
Closed Vent Monitoring Requirements	90
Closed Vent Recordkeeping Requirements	
Closed Vent Test Methods and Procedures	
Clean Condensate Alternative	94
Title VI Provisions	96
SECTION VII: INSIGNIFICANT ACTIVITIES	100
SECTION VIII: GENERAL PROVISIONS	102

Permit: 0271-AOP-R7

AFIN: 21-00036

List of Acronyms and Abbreviations

A.C.A. Arkansas Code Annotated

AFIN ADEQ Facility Identification Number

CFR Code of Federal Regulations

CO Carbon Monoxide

HAP Hazardous Air Pollutant

lb/hr Pound Per Hour

MVAC Motor Vehicle Air Conditioner

No. Number

NO_x Nitrogen Oxide

PM Particulate Matter

PM10 Particulate Matter Smaller Than Ten Microns

SNAP Significant New Alternatives Program (SNAP)

SO₂ Sulfur Dioxide

SSM Startup, Shutdown, and Malfunction Plan

Tpy Tons Per Year

UTM Universal Transverse Mercator

VOC Volatile Organic Compound

Permit: 0271-AOP-R7 AFIN: 21-00036

SECTION I: FACILITY INFORMATION

PERMITTEE: Potlatch Forest Products Corporation - Cypress Bend Mill

AFIN: 21-00036

PERMIT NUMBER: 0271-AOP-R7

FACILITY ADDRESS: Highway 4 North, near Rowher

McGehee, AR 71654

MAILING ADDRESS PO Box 727

McGehee, Arkansas 71654

COUNTY: Desha

CONTACT PERSON: Mr. Sam Leslie

TELEPHONE NUMBER: 870-877-3368

REVIEWING ENGINEER: Karen Cerney

UTM North/ South (Y): 3730.930

UTM East/ West (X): 663.290

Zone: 15

Permit: 0271-AOP-R7 AFIN: 21-00036

SECTION II: INTRODUCTION

Summary of Permit Activity

Potlatch Forest Products Corporation owns and operates the Cypress Bend Mill near McGehee, Arkansas. The facility includes a Kraft pulp mill with associated paper manufacturing operations and produces a variety of paper products. This facility is classified as a major stationary source pursuant to 40 CFR 52.21 (Prevention of Significant Deterioration (PSD) regulations) since it has emissions of more than 100 tons per year (tpy) and appears on the list of 28 major source categories.

This minor modification is being issued to allow the permittee to remove the listing of Lime Bin Scrubber (SN-12) from the insignificant activities list and list as a permitted source, Lime Bin Loading (SN-12). The permittee will also be allowed to add new infrared dryers to the dryer sections on the Board Machine (SN-11). There are no emissions directly related to the infrared dryers. However, the new dryers may allow for increased production of heavy paper grades. This proposed change is estimated to increase actual production by a maximum of 34 tons per day (average of all grades). The potential production rates and enforceable limits used to establish the permit limits in permit 0271-AOP-R6 will not change. There will be no increase in permitted emissions from the new infrared dryers. The proposed changes result in a permitted emission increase of 2.5 tpy of PM/PM₁₀.

Process Description

The Kraft pulping process involves the extraction of cellulose from wood chips by dissolving the lignin that binds the cellulose fibers together. This is done by cooking (digesting) the wood at elevated temperature and pressure in the presence of "white liquor." White liquor is a mixture of sodium sulfite and sodium hydroxide. Potlatch Forest Products Corporation currently maintains five batch digesters.

The mixture of pulp and chemicals (cooked chips) is forced out of the digesters into a blow tank. The blow tank reduces the pressurized mixture to atmospheric pressure. The pulp is screened to remove knots and other undissolved materials and sent to the brown stock washer. In the brown stock washer the pulp is washed and separated from the digester chemicals. Washed pulp is bleached and formed into white paper board. A scrubber is used to control chlorine and chlorine dioxide emissions from the bleach plant.

The spent liquid contains spent digester chemicals and dissolved lignin and is referred to as weak black liquor. Weak black liquor contains chemicals and a high percentage of organic material. The heat value of the black liquor can be recovered by burning the black liquor in a boiler. Weak black liquor is approximately 15% solids, which will not sustain combustion. Thus, the water is first evaporated to yield a black liquor with a solids content of approximately 69%. The black liquor is burned in a recovery boiler and the chemicals are collected as a molten liquid of inorganic salts (smelt) at the bottom of the boiler. NO_x, SO₂, and CO emissions are controlled

Permit: 0271-AOP-R7

AFIN: 21-00036

through the use of good combustion techniques. PM/PM_{10} emissions are controlled through the use of a dual-chamber electrostatic precipitator (ESP).

Smelt contains both sodium sulfide and sodium carbonate. The smelt is transferred to a smelt dissolving tank and dissolved in water to produce "green liquor." Particulate emissions from the smelt dissolving tank are controlled through the use of a scrubber. Total reduced sulfur (TRS) emissions are controlled through the use of an absorber. The green liquor is principally a mixture of sodium sulfide and sodium carbonate. Green liquor is sent to a causticizer where slaked lime (quicklime or CaO) is added to convert the sodium carbonate to sodium hydroxide and thus complete the recovery of the white liquor. The calcium carbonate sludge is heated in a kiln to regenerate the lime (CaO) used in the causticizing tank. Particulate emissions from the lime kiln are also controlled through the use of a scrubber.

Vapors from the digesters and the blow tank are condensed. The non-condensable gases (NCGs), primarily reduced sulfur compounds, are collected and sent to the NCG Thermal Oxidizer for incineration. A packed tower scrubber is used to remove the SO₂ from the oxidizer tail gas. When the thermal oxidizer is not in operation the NCGs are sent to the lime kiln for incineration. The lime kiln is equipped with a venturi scrubber which controls particulate emissions.

The recovery boiler is not capable of generating all the steam required to operate the plant. Additional steam is provided by a 479 MMBtu per hour natural gas fired power boiler and an 86 MMBtu per hour natural gas fired package boiler.

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective February 15, 1999
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective May 28, 2006
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective September 26, 2002
40 CFR 52.21, Prevention of Significant Deterioration (PSD)
40 CFR 64, Compliance Assurance Monitoring (CAM)
40 CFR 60, Subpart BB - Standards of Performance for Kraft Pulp Mills (see attached copy in Appendix A)
40 CFR 60, Subpart D, Standards of Performance for Fossil Fuel Fired Steam
Generators for Which Construction Commenced after August 17, 1971 (see attached copy in Appendix B)

Permit: 0271-AOP-R7

AFIN: 21-00036

Regulations

40 CFR 60, Subpart Db, Standards of Performance for Industrial Commercial Institutional Steam Generating Units (see attached copy in Appendix C)

40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units (see attached copy in Appendix D)

40 CFR 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984 (see attached copy in Appendix E)

40 CFR 63, Subpart S, National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry (Cluster Rule) (see attached copy in Appendix F).

40 CFR 63, Subpart MM, National Emission Standards for Hazardous Air Pollutants from Chemical Recovery Combustion from Sources at Kraft, Soda, Sulfite, and Standalone Semichemical Pulp Mills (Appendix H)

40 CFR 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (Compliance date: 9/13/07)

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

AFIN: 21-00036

Emission Summary

	EMISSION SUMMARY			
Source Description		Pollutant	Emissio	on limits
Number	r Description Pollutant		lb/hr	tpy
Number	Description I Allowable Emissions	PM PM ₁₀ SO ₂ VOC CO NO _x Lead TRS Non-Criteria Air Contaminants H ₂ SO ₄ Acetone Chlorine Dioxide Ammonia MEK* HAPS 1, 2, 4 - Trichlorobenzene* Acetaldehyde* Acrolein* Arsenic Cadmium Carbon Disulfide Carbon Tetrachloride* Chlorine Chloroform* Chloroform* Chromium VI Formaldehyde* HCI Methanol* Styrene*		
		Tetrachloroethylene* M-cresol* O-cresol* Mercury	0.25 0.09 0.04 0.01	0.82 0.36 0.18 0.01

EMISSION SUMMARY				
Source	Description	Pollutant	Emission limits	
Number	Number	mber Bescription Tonutant	lb/hr	tpy
		PM	7.6	32.9
		PM_{10}	7.6	32.9
		SO_2	10.1	44.1
		VOC	8.3	36.4
		СО	7.8	34.2
		NO_x	22.6	99.0
		Lead	0.03	0.12
		TRS	1.7	7.4
		Acetone	0.01	0.03
1	Lime Kiln	Acetaldehyde*	0.06	0.24
		Cadmium	0.01	0.01
		Carbon Disulfide	0.03	0.14
		Chloroform*	0.03	0.11
		Methanol*	0.29	1.23
		MEK*	0.01	0.04
		M-cresol*	0.09	0.36
		O-cresol*	0.04	0.18
		Mercury	0.01	0.01
		PM	55.3	223.4
		PM_{10}	55.3	223.4
		SO_2	125.6	164.8
		VOC	9.5	38.1
		СО	269.4	1081.8
		NO_x	162.3	651.6
2	Recovery Furnace	TRS	5.5	21.9
2		H ₂ SO ₄	1.9	8.3
		Acetaldehyde*	0.04 0.59	0.15
		Formaldehyde* Hydrogen Chloride	0.59 4.50	2.35 18.10
		Methanol*	3.80	15.10
		Styrene*	0.04	0.17
		Chromium VI	0.04	0.17
		Cinomium vi	0.01	0.01

EMISSION SUMMARY				
Source Number Description	Description	Pollutant	Emission limits	
	Description	Tonutuit	lb/hr	tpy
		PM	7.7	30.9
		PM_{10}	7.7	30.9
		SO_2	6.0	26.3
		VOC	5.1	22.4
	~ . ~	NO_x	6.6	26.5
3	Smelt Dissolving Tank	TRS	1.1	4.3
		Lead	0.01	0.02
		Methanol*	0.75	3.10
		Arsenic	0.01	0.01
		Cadmium	0.01	0.01
	4 Power Boiler	PM	47.9	209.8
		PM_{10}	47.9	209.8
		SO_2	383.2	32.2
4		VOC	3.2	14.1
		CO	47.4	207.7
		NO_x	143.7	419.6
		Formaldehyde*	0.12	0.50
		PM	3.2	14.0
		PM_{10}	3.2	14.0
		SO_2	9.0	39.0
		VOC	9.0	39.0
		СО	22.6	99.0
		NO_x	8.7	38.0
5	NCG Thermal Oxidizer	TRS	0.4	1.7
		Acetone	0.01	0.03
		Methanol*	0.23	0.98
		Acetaldehyde*	0.01	0.03
		Formaldehyde*	0.26	1.14
		MEK*	0.01	0.02
		1, 2, 4 - Trichlorobenzene*	0.04	0.17

EMISSION SUMMARY				
Source	I Description I Pollutant		Emissio	on limits
Number	Description	Tonutant	lb/hr	tpy
		VOC	8.5	36.9
		CO	39.5	172.8
		Chlorine Dioxide	1.8	7.9
		Chlorine	2.60	
6	Bleach Plant Scrubber	Chloroform*	5.50	24.10
		Methanol*	2.90	12.50
		MEK*	0.04	
		Styrene*	0.04	0.15
		1, 2, 4 - Trichlorobenzene*	0.11	0.47
		VOC	0.1	0.2
		Chlorine	0.30	1.30
		Chlorine Dioxide	2.32	10.2
		Acetone	0.01	0.01
7	7 ClO ₂ Generator	Acetaldehyde*	0.01	0.01
		Chloroform*	0.01	0.03
		Styrene*	0.01	0.01
		Formaldehyde*	0.01	0.02
		Methanol*	0.01	0.05
	Aeration Stabilization	VOC	184.6	808.2
8	Basin and Process	Chloroform*	4.20	18.40
	Sewers	Methanol*	180.31	789.78
		VOC	151.7	664.4
		TRS	17.2	75.2
		Acetone	3.3	14.5
		Acetaldehyde*	0.79	tpy 36.9 172.8 7.9 11.40 24.10 12.50 0.15 0.15 0.47 0.2 1.30 10.2 0.01 0.03 0.01 0.03 0.01 0.02 0.05 808.2 18.40 789.78 664.4 75.2
		Acrolein*	0.02	0.06
10	Brown Stock Washer	Carbon Tetrachloride*	0.08	0.33
10	Vent	Chloroform*	0.06	
		Methanol*	25.90	
		MEK*	0.33	
		Styrene*	0.09	0.39
		1, 2, 4 - Trichlorobenzene*	0.01	0.01
		Tetrachloroethylene*	0.03	0.13

	EMISSION SUMMARY			
Source	Description	Pollutant	Emission limits	
Number	Bescription	1 onduit	lb/hr	tpy
		VOC Ammonia	12.8 3.4	40.3 10.5
		Acetaldehyde* Acrolein*	3.20 0.12	10.00 0.38
11	Board Machine Vents	Formaldehyde* Methanol* MEK*	0.63 2.80 0.20	2.00 8.60 0.63
		1, 2, 4 - Trichlorobenzene* Tetrachloroethylene*	0.14 0.22	0.42 0.69
12	Lime Bin Loading	PM PM ₁₀	0.6 0.6	2.5 2.5
13	Package Boiler	$\begin{array}{c} PM \\ PM_{10} \\ SO_2 \\ VOC \\ CO \\ NO_x \end{array}$	1.5 1.5 0.1 0.6 11.0 4.3	6.3 6.3 0.3 2.5 48.2 18.8
14F	Pulping Material Storage Piles	VOC PM PM ₁₀	42.1 0.1 0.1	184.3 0.3 0.2
15	Batch Digesters (Filling)	VOC TRS Acetone Acetaldehyde* Carbon Tetrachloride* Methanol* MEK* Styrene*	65.9 4.4 0.17 0.13 0.06 2.60 0.04 0.02	288.6 19.3 0.72 0.54 0.24 11.20 0.14 0.08
16F	Pulp Storage Chests	VOC	5.2	22.6
17F	Landfill Operations	VOC PM PM ₁₀	5.5 0.3 0.2	23.9 0.1 0.1
21	Weak Black Liquor Tank VOC Methanol*		8.9 8.90	4.8 4.80
22	Weak Black Liquor Tank VOC Methanol*		8.9 8.90	4.8 4.80

Permit: 0271-AOP-R7

	EMISSION SUMMARY				
Source	Description	Pollutant –	Emission limits		
Number	Description	1 Offutant	lb/hr	tpy	
24	Methanol Tank	VOC Methanol*	44.6 44.60	0.5 0.50	
25	Green Liquor Storage Tank	VOC Methanol*	0.1 0.10	0.3 0.30	
26	White Liquor Storage Tank	VOC Methanol*	0.2 0.20	0.6 0.60	
27F	Hardwood High Density Tower	VOC	1.1	4.5	
28	Multi-Use Tank	VOC Methanol*	17.8 17.80	9.6 9.60	
29	NCG Collection System	Routed through SN-01 or SN-05			
30a-f	Temporary Package Boilers (6)	$\begin{array}{c} \text{PM} \\ \text{PM}_{10} \\ \text{SO}_2 \\ \text{VOC} \\ \text{CO} \\ \text{NO}_x \end{array}$	4.5 4.5 0.4 3.3 88.2 88.2	2.0 2.0 0.2 1.5 39.0 39.0	
31	Auxiliary Liquor Tank	VOC Methanol	0.8 0.8	1.6 1.6	
32	Intermediate Liquor Tank	VOC Methanol	2.4 2.4	1.0 1.0	
33	Pet Coke Storage Silo	${ m PM} \over { m PM}_{10}$	0.3 0.3	1.2 1.2	

^{*}Emissions included in VOC totals. Other unmarked HAPs/ Air Contaminants are not VOCs.

Permit: 0271-AOP-R7

AFIN: 21-00036

SECTION III: PERMIT HISTORY

Permit 271-A was the initial air permit issued to Potlatch Corporation for the construction and operation of a bleached Kraft pulp and paper mill near McGehee, Arkansas. The permit was issued on December 16, 1974. The initial permit was issued based on the design criteria for the mill. This permit contained emission sources for the Recovery Boiler, Lime Kiln, Smelt Tank, Power Boiler, and the Sludge Incinerator. The permit also contained requirements for the facility to submit additional information that would provide a more complete description of the mill including a demonstration that the facility would be using the best available control technology for air pollution control. This submittal would prompt an opportunity for public comment on the proposed mill. Potlatch submitted the required information and opportunity for public comment was given by public notice on July 18, 1976. The information reflected design modifications that resulted in a net decrease in atmospheric emissions from the mill. A modified version of the original permit was issued on October 24, 1976.

Permit 271-AR-1 was issued on May 29, 1981 as a result of a proposal to construct and operate a 695 MMBtu/hr heat input coal fired boiler at the Cypress Bend Mill. This boiler would have produced 500,000 lb/hr of high pressure steam at maximum production to be used for electricity production and in-process only. The installation and operation of the boiler was to be regulated by both the New Source Performance Standards (NSPS) and the Prevention of Significant Deterioration (PSD) regulations. In February 1982, permit PSD-AR-380 was assigned to Potlatch by the EPA. However the proposed project was never installed.

Permit 271-AR-2 was issued on February 16, 1990. This permit was issued in order to incorporate several changes that had taken place at the mill since the previous permit was issued. The lime kiln started burning natural gas as the primary fuel as of November 4, 1986. The facility had increased production from 386 tons/day of paperboard in 1978 to 628 tons/day of paperboard in 1988. The power boiler was modified on January 17, 1986 to use number 6 fuel oil and natural gas.

Permit 271-AR-3 was issued on July 26, 1990. This permit was issued in order to reflect the addition of a venturi scrubber on the outlet of the smelt dissolving tank which was completed on May 30, 1990. This permit also included the proposed value for TRS emissions from the smelt dissolving tank.

Permit 271-AR-4 was issued on June 24, 1991. This permit modification dealt with the replacement of the firing section of the recovery boiler. Potlatch proposed to replace the firing section of its existing recovery boiler due to deterioration of the equipment. The replacement resulted in an increased firing capacity of black liquor solids. This modification also caused the recovery boiler to be subject to the New Source Performance Standards (NSPS) Subpart BB - Standards of Performance for Kraft Pulp Mills which established emission factors for particulate matter and total reduced sulfur (TRS) compounds. Potlatch avoided PSD review at that time by accepting federally enforceable conditions limiting the amount of black liquor solids combusted in the recovery boiler.

Permit: 0271-AOP-R7

AFIN: 21-00036

Permit 271-AR-5 was issued on September 30, 1991. Permit 271-AR-5 was a "consolidated" permit which included all major air sources at the facility in the permit and expanded the applicable pollutants regulated in the permit. This permit allowed Potlatch Corporation to install a fifth digester. Additionally, this permit restricted throughput of black liquor solids through the recovery boiler to 2.2 million pounds per day.

Permit 271-AR-6 was issued on July 8, 1992. Permit 271-AR-6 allowed Potlatch Corporation to modify the recovery boiler to increase black liquor solids throughput capacity and thus increase total production. This modification resulted in a "significant net emissions increase" of particulate matter (PM/PM₁₀) 32.5 tons per year (tpy), sulfur dioxide (SO₂) 128.5 tpy, and nitrogen oxides (NO_x) 151.8 tpy. This modification caused the facility to be subject to the Prevention of Significant Deterioration (PSD) Supplement to the Arkansas Plan of Implementation for Air Pollution Control. The 2.2 million pounds black liquor solids restriction was removed allowing operation of the recovery boiler at a maximum design throughput of 2.5 million pounds of black liquor solids per day. Additionally, this permit required Potlatch Corporation to install continuous emission monitors (CEM) or perform annual compliance testing for various pollutants for several sources. The following table summarizes the Best Available Control Technology (BACT) emission limits required by the PSD permit.

	Recovery Boiler BACT Emission limits			
Pollutant	BACT Limit	Control Mechanism		
PM/PM ₁₀	0.038 gr/dscf (47.6 lb/hr)	Electro-Static Precipitator		
SO_2	86 ppm (125.6 lb/hr)	Proper operation of the boiler and a Continuous Emissions Monitoring System (CEM).		
NO _x	93 ppm (97.3 lb/hr)	Proper operation of the boiler and a Continuous Emissions Monitoring System (CEM).		

In addition, the Department required Potlatch to modify or replace the ESP controlling PM/PM_{10} emissions when it became evident that compliance could not be met. The Department also required that the new or modified control equipment meet a PM/PM_{10} emission limit consistent with BACT at the time the control equipment is modified. The Department added a stipulation that the new BACT emission limit could not be greater than 0.021 gr/dscf.

NO_x emission limit data collected using a CEM indicated that Potlatch Corporation could not run the boiler at maximum capacity and meet the current permit limit of 93 parts per million (ppm) NO_x averaged over 12 hours. Potlatch Corporation conducted a Design of Experiment (DOE) to determine the optimal recovery boiler operating parameters and to determine if operation at the optimal parameters would allow compliance with existing permit limits. The DOE results indicated that, at the optimal operating parameters of the boiler, a NO_x emission limit of 110 ppm, corrected to 8% O₂ and averaged over 12 hours, would be required in order to operate the boiler at maximum design capacity.

Permit: 0271-AOP-R7

AFIN: 21-00036

Permit 271-AR-7 was issued on December 12, 1994, to allow an increase in the NO_x emission limit for the recovery boiler to 110 ppm, corrected to 8% O₂ and averaged over 12 hours. This also allowed Potlatch Corporation to operate the recovery boiler at the maximum design capacity of 2.5 million pounds of black liquor solids per day. Additionally, the permit allowed the installation of an 86 million (mm) BTU per hour package boiler, which provides additional steam to the plant during the winter months. Potlatch could not meet the steam demand during the winter months due to the drop in river water temperature and the lower ambient air temperature which caused more steam to be used to heat process water. This modification resulted in a "significant net emissions increase" of nitrogen oxides (NO_x) 96.3 tpy. This modification caused the facility to be subject to the Prevention of Significant Deterioration (PSD) Supplement to the Arkansas Plan of Implementation for Air Pollution Control. The following table summarizes the Best Available Control Technology (BACT) emission limits required by the PSD permit.

	NO _x BACT Emission limits			
Source	BACT Limit	Control Mechanism		
Recovery Boiler (SN-02)	110 ppm corrected to 8% O ₂ , Averaged over a 12 hr period.	Controlled combustion practices and a Continuous Emissions Monitoring System (CEM).		
Package Boiler (SN-13)	0.05 lb/MMBtu	Low NO _x Burners.		

Permit 271-AR-8 was issued on August 5, 1996, to allow an increase in the operating hours for the Non-Condensable Gas Incinerator and a decrease in the allowable SO₂ emissions from the incinerator. The SO₂ emissions were reduced from 47.1 lbs/hr to 5.0 lbs/hr.

Permit 1136-A was a temporary permit issued to Potlatch Corporation on April 15, 1991. Potlatch was currently operating under permit 271-AR-3. The facility wanted to be granted a permit for the replacement of its digester tanks, which were partially affected by NSPS regulations. Considering the urgency of the project, the Department agreed to issue a temporary permit dealing exclusively with the digester replacement conditionally based upon a full "consolidated" application being submitted by June of 1991. The digester replacement consisted of building a new digester and replacing three of the four old digesters one at a time so that production was not hampered. The project was subject to NSPS Subpart BB which required that the non-condensable gases routed from the digesters that are incinerated in a non-NSPS lime kiln be subjected to 1200 °F for 0.5 seconds.

Permit 1136-AR-1 was issued as a modification to the temporary permit on April 24, 1991. The non-condensable gases from the evaporators and the digesters were normally routed to the lime kiln for incineration. However since the lime kiln was not in operation for a substantial number of hours per year, the facility decided to install a thermal incinerator to destroy the NCGs during those times. The thermal incinerator met the requirements contained in NSPS Subpart BB for retention time and temperature.

Permit: 0271-AOP-R7

AFIN: 21-00036

Arkansas Operating Permit 271-AOP-R0, issued May 26, 1999, was the first operating permit issued to Potlatch Corporation - Cypress Bend Mill under Regulation 26. This permit included several emission points which have always been located at the facility but were not previously permitted. In addition, some allowable emission limits were modified from the previous permit to reflect more recent test data and/or newer emission factors.

Permit 271-AOP-R1, issued March 13, 2000, was the second operating permit issued to Potlatch Corporation - Cypress Bend Mill under Regulation 26. Potlatch installed a new NCG Thermal Oxidizer in order to be able to comply with 40 CFR Part 63, Subpart S - *National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry*. Also, Potlatch modified their recovery furnace which resulted in the need for a PSD review of the modification. The recovery furnace modification and related PSD implications are summarized below.

Potlatch Corporation modified the air distribution system and modernized the boiler section of the recovery furnace. Components of the economizer and the superheater were also replaced. The new design allowed for increased steam production efficiency and capacity as well as increased black liquor solids (BLS) firing efficiency and capacity. Due to the increased capacity of the recovery furnace, emissions from Potlatch's smelt tank were also affected by this modification. However, it should be noted that Potlatch did not modify their smelt tank. The following table summarizes the BACT limits imposed by the permit:

Pollutant	BACT Limit*	BACT Determination
СО	300 ppmdv	Proper Design and Operation
NO_X	110 ppmdv	Proper Design and Operation
TRS	5 ppmdv	Proper Design and Operation

^{*} All values are @ 8% O_2 .

Additional emissions from Permit 271-AOP-R1 were shown to have less than significant modeling impact, therefore requiring no additional refined modeling. Also, no adverse impacts to Class I Areas were predicted, and no issues arose during the additional impact analysis. Also with this modification, the permittee accepted a more stringent PM₁₀ BACT limit at SN-06 to ensure that no additional tpy were potentially emitted in order to avoid PSD review of the ESP. Compliance with the BACT determination and the more stringent revision to the BACT has been achieved so far; therefore, the facility has avoided ESP replacement as mandated by the PSD review of Permit 271-AR-6.

Permit 271-AOP-R2, issued June 5, 2001, was the third operating permit issued to Potlatch Corporation - Cypress Bend Mill under Regulation 26. This action was a minor modification allowing the installation and operation of a multi-use liquor storage tank (SN-28) for the storage of weak black liquor or green liquor.

Permit: 0271-AOP-R7

AFIN: 21-00036

Permit 271-AOP-R3, issued May 21, 2003, incorporated two minor-modifications approved by the Department on May 24, 2002, and August 30, 2002. The first approval defined the specific requirements of the NESHAP Subpart S (Cluster Rule). The second approval allowed an upgrade to steam piping at the Board Machine (SN-11). Neither of these changes affected permitted emissions calculated for the facility.

Pound per hour limits were slightly increased at SN-11 due to a change in the method of calculation. Previously, maximum pound per hour emission limits were determined by applying the appropriate emission factors to monthly average throughputs. It was determined by the Department that this did not provide an accurate enough estimate of maximum emissions so the pound per hour rates were recalculated based on maximum hourly throughputs instead.

Revision 3 also included provisions for new sources. Up to six temporary package boilers may be brought on-site with individual heat capacities up to 100 MM Btu/hr. The new sources will be designated as SN-30a through f. These units are subject to NSPS Subpart Dc - *Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units*.

Permit 271-AOP-R4, issued December 4, 2003, incorporated a minor modification approved by the Department on May 28, 2003. Changes allowed additional flexibility in use of fuel oil at the Power Boiler (SN-04). This flexibility was permitted because of enhanced monitoring and recordkeeping used to demonstrate compliance with the Power Boiler's SO₂ emission limit. The enhanced monitoring includes operating continuous emission monitoring systems (CEMS) in place of fuel limits and fuel sulfur content limits. Other compliance mechanisms already in place were not affected and deemed adequate for demonstration of compliance with the other emission limits. These mechanisms include CEMS for NO_X, CO, and a continuous opacity monitor (COM). Emission limits at SN-04 were not changed.

Permit 271-AOP-R5, issued April 14, 2005, served as the first Title V renewal. The following modifications were made:

- Various updated emission limits based on more recent emission factors were included.
- The Recovery Furnace (SN-02) language which permits the combustion of fuel oil only "during startup, shutdown, and natural gas curtailment" was removed. This language was unnecessary and oil use is effectively limited by the 10% capacity factor listed in Specific Condition 71.
- Various stack testing requirements throughout the permit were removed or decreased in frequency due to historical demonstration of compliance. See the renewal application Page 1-2 and 1-3 for details.
- A Lime Kiln (SN-01) compliance mechanism, daily lime throughput, was replaced with daily lime production. No changes in Lime Kiln operating rates were actually taking place.
- The Aeration Stabilization Basin (SN-08) compliance mechanism, effluent flow rate, was removed and compliance is now based on the mill's production limits, Plantwide Condition 8.

Permit: 0271-AOP-R7

AFIN: 21-00036

- The CAM Plan requirements for the NCG Thermal Oxidizer (SN-05) pursuant to the requirements of 40 CFR Part 64 were added.
- Requirements of 40 CFR 63, Subpart MM were applied to the Recovery Process.
- Previously left out PM/PM₁₀ emissions at SN-14F and SN-17F are now included.
- NSPS Subpart Kb was revised on October 15, 2003. One of the revisions specifically exempts units defined as process tanks from Subpart Kb applicability. Units in this permit that were previously affected by NSPS Subpart Kb and are defined as process tanks were exempted from that Subpart in the revision.
- The entire Waste Water Treatment System (SN-08), which was formerly listed as Aeration Stabilization Basin (ASB) (SN-08) and other insignificant activities, were added in full as a permitted source.
- Updates and re-evaluations were made to the Insignificant Activities List, Section VII. This brought forth the need to include in the permit two additional tanks formerly deemed insignificant. These tanks are the Auxiliary Liquor Tank (SN-31) and an Intermediate Liquor Tank (SN-32).
- Various emission limit corrections were made in regards to rounding conventions.
- Various administrative changes including corrections and clarifications to permit language were made.
- Provisions were put into this permit to allow implementation of 40 CFR §63.447 (Clean Condensate Alternative). See Plantwide Conditions Clean Condensate Alternative.
- A minor modification was approved on February 16, 2005, allowing the following five changes.
- At the board machine, the permittee was allowed to install headbox dilution controls to improve trim and grade change losses.
- At the board machine, the permittee was allowed to replace the gas-fired infrared dryer at the No. 1 Coater with an improved infrared drying system in order to improve operating costs and final coated surface quality.
- The permittee replaced the existing Eop washer drum at the bleach plant to reduce steam and chemical usage.
- The permittee was allowed to rebuild a concentrator associated with black liquor evaporation trains, which reduces steam and natural gas usage.
- Eight cooling towers were added to the insignificant activities list.

A transfer of ownership was processed for the facility on January 23, 2006. The new owner is Potlatch Forest Products Corporation.

Permit 271-AOP-R6, issued April 7, 2006, incorporated changes allowed by a minor modification approved on October 26, 2005. Under the approval Potlatch Forest Products Corporation was allowed the flexibility to co-fire petroleum coke (pet coke) and natural gas in the Lime Kiln (SN-01). Up to 13,505 tons per year of pet coke could be combusted at the Lime Kiln. Natural gas consumption at the Lime Kiln remained unlimited. The permittee also constructed and operated a pet coke storage silo in which emissions were controlled by a fabric filter. The Pet Coke Storage Silo (SN-33) was permitted to operate unlimited annually.

Permit: 0271-AOP-R7

AFIN: 21-00036

SECTION IV: SPECIFIC CONDITIONS

Power Utilities

SN-04 Power Boiler

Source Description

Source SN-04 is the Power Boiler. The power boiler is a 479 MMBtu/hr natural gas fired boiler. Exhaust gases pass through a stack located at the top of the Power House building. The steam from this unit is used to generate electricity in the turbine generator and to provide steam for various mill processes. This unit was installed in 1977 and is therefore subject to regulation under the New Source Performance Standards 40 CFR Part 60 Subpart D - Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced after August 17, 1971.

Specific Conditions

1. The permittee shall not exceed the emission limits set forth in the following table for source SN-04. The pound per hour and the ton per year pollutant emission limits are based on the maximum capacity of the equipment. NO_x and PM₁₀ emissions are also effectively limited by Specific Condition 5. [Regulation 19, §19.501 et seq., effective May 28, 2006 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr (Fuel Oil)	lb/hr (Natural Gas)	tpy
PM ₁₀	47.9	47.9	209.8
SO_2	383.2	0.4	32.2
VOC	0.9	3.2	14.1
СО	20.7	47.4	207.7
NO _x	143.7	95.8	419.6

2. The permittee shall not exceed the emission limits set forth in the following table for source SN-04. The pound per hour and the ton per year pollutant emission limits are based on the maximum capacity of the equipment. PM emissions are also effectively limited by Specific Condition 5. [Regulation 18, §18.801, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Permit: 0271-AOP-R7

AFIN: 21-00036

Pollutant	lb/hr (Fuel Oil)	lb/hr (Natural Gas)	tpy
PM	47.9	47.9	209.8
formaldehyde	0.12	-	0.50

- 3. The permittee shall not exceed 5% opacity from source SN-04 as measured by EPA Reference Method 9. Compliance is demonstrated by Continuous Opacity Monitors required by Specific Condition 13. [§18.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 4. The Power Boiler (SN-04) is subject to all applicable requirements of the New Source Performance Standards (NSPS) Subpart D provisions as identified in the Code of Federal Regulations (CFR) Title 40, Part 60.40. [§19.304 and 40 CFR Part 60 Subpart D, Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17,1971]
- 5. The boiler shall not exceed the following emission limits. Compliance is demonstrated by the initial compliance test (for PM performed and passed) and by the Continuous Emission Monitoring System (CEM) requirements contained in Specific Condition 6, 12, and 13. [§19.304 and 40 CFR §60.42 and §60.44]

Regulation Citation	Pollutant	Emission Limit
40 CFR §60.42 (a)(1)	PM	0.1 lb/MMBtu
10.077.010.10.10.10		20% (six minute average)
40 CFR §60.42 (a)(2)	Opacity	27% (any one six minute average per hour)
40 CFR §60.43 (a)(1) Fuel Oil Combustion	SO_2	0.8 lb/MMBtu
40 CFR §60.44 (a)(1) Natural Gas Combustion	NO _x	0.2 lb/MMBtu
40 CFR §60.44 (a)(2) Fuel Oil Combustion	NO _x	0.3 lb/MMBtu

6. The permittee shall continue to calibrate and maintain a Continuous Emission Monitoring System (CEMS) to measure the NO_x emissions from the Power Boiler (SN-04). The CEMS shall be installed and operated in accordance with performance specification 2 found in 40 CFR Part 60, Appendix B, and the ADEQ Continuous Emission Monitoring System Conditions (see attached copy in Appendix G of this permit). [§19.304 and 40 CFR \$60.45 (a)]

Permit: 0271-AOP-R7

- 7. The permittee shall continue to calibrate and maintain a CEMS to measure the CO₂ emissions from the Power Boiler (SN-04). The CEMS shall be installed and operated in accordance with performance specification 3 found in 40 CFR Part 60, Appendix B, and the ADEQ CEMS Conditions. [§19.304 and 40 CFR §60.45 (e)(2)]
- 8. The permittee shall submit an excess opacity emissions report for any calendar quarter during which fuel oil is combusted at SN-04. The excess opacity reports shall be submitted quarterly in accordance with the ADEQ CEMS Conditions. [§19.304 and 40 CFR §60.45 (g)(1)]
- 9. The permittee shall submit an excess NO_x emissions report for each calendar quarter for SN-04. For the purposes of these reports, an excess emission is defined as all three-hour periods during which the average emissions (arithmetic average of three contiguous one-hour periods) exceeds the applicable standards as stated in Specific Condition 5. The permittee shall submit excess NO_x reports in accordance with the ADEQ CEMS Conditions. [§19.304 and 40 CFR §60.45 (g)(3)]
- 10. The permittee shall conduct compliance testing for CO from the Power Boiler (SN-04) using EPA Reference Method 10. Testing shall be conducted every five years on or before October 1 of applicable years. The permittee shall conduct the compliance testing and subsequent reporting in accordance with Plantwide Condition 3. [§19.702 and 40 CFR Part 52, Subpart E]
- 11. The permittee shall combust only natural gas and fuel oil as fuel for the Power Boiler (SN-04). [§19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]
- 12. The permittee shall continue to calibrate and maintain a CEMS to measure the SO₂ emissions from SN-04 during periods of fuel oil combustion. The CEMS shall be installed and operated in accordance with performance specification 2 found in 40 CFR 60, Appendix B, and the ADEQ CEMS Conditions. Alternatively, during periods of CEMS outage, the permittee shall utilize appropriate fuel oil sampling and analysis as allowed in NSPS, Subpart D to determine SO₂ emissions by mass balance, assuming 100% conversion of fuel oil sulfur to SO₂. The permittee shall notify the Department of SO₂ CEMS outages during periods of fuel oil combustion. [§19.705, §19.304, and 40 CFR §60.45(a)]
- 13. The permittee shall maintain a continuous opacity monitoring system (COMS) to measure opacity from the Power Boiler (SN-04) when burning fuel oil. The COMS shall be operated in the event that fuel oil is combusted in the boiler. The permittee shall have the COMS certified for periods of fuel oil combustion. The COM shall comply with the ADEQ CEMS Conditions. [§19.703, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Permit: 0271-AOP-R7

AFIN: 21-00036

14. The permittee shall submit excess SO₂ emissions reports for each calendar quarter for SN-04. For the purposes of these reports, an excess emission is defined as all three-hour periods during which the average emissions (arithmetic average of three contiguous one-hour periods) exceeds the applicable standards as stated in Specific Condition 5. The permittee shall submit excess SO₂ reports in accordance with the ADEQ CEMS Conditions. [§19.304 and 40 CFR §60.45(g)(2)]

15. The permittee shall maintain monthly records of the rolling 12-month total SO₂ emissions in order to demonstrate compliance with the annual SO₂ tpy limit set by Specific Condition 1. CEMS data or alternative methods allowed by Specific Condition 12 shall be recorded during periods of fuel-oil combustion. For each period of natural gas-only combustion, the permittee may record the 0.4 lbs per hour SO₂ permit limit as the default emission rate instead of CEMS data. These records shall be updated within 15 days following the month to which the records pertain, kept on-site, and made available to Department personnel upon request. The permittee shall submit CEMS data in accordance with General Condition 7. [§19.705 and 40 CFR Part 52, Subpart E]

Permit: 0271-AOP-R7 AFIN: 21-00036

SN-13 Package Boiler

Source Description

Source SN-13 is the package boiler which is a mobile unit that is rented from an outside source and serves as an auxiliary generator of steam during times when additional steam is necessary at the mill. This unit has a maximum heat input capacity of 86 MMBtu/hr and is natural gas fired. Since this unit is not a permanent fixture at the mill, the date of construction of the unit brought on site can vary. If the package boiler was constructed after June 9, 1989, then it will be subject to regulation under the New Source Performance Standards 40 CFR Part 60 Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units

Specific Conditions

16. The permittee shall not exceed the emission limits set forth in the following table for source SN-13. The pound per hour and the ton per year pollutant emission limits are based on the maximum capacity of the equipment. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM_{10}	1.5	6.3
SO_2	0.1	0.3
VOC	0.6	2.5
CO	11.0	48.2

17. The permittee shall not exceed the emission limits set forth in the following table for source SN-13. Compliance with the emission limits is demonstrated through compliance with Specific Conditions 21 and 23. [§19.501, §19.901, and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
NO _x	4.3	18.8
NO _X	0.05 lb/MMBtu	

18. The permittee shall not exceed the emission limits set forth in the following table at source SN-13. The pound per hour and the ton per year emission limits are based on the capacity of the equipment. [§18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Permit: 0271-AOP-R7

Pollutant	lb/hr	tpy
PM	1.5	6.3

- 19. The permittee shall not exceed 5% opacity from source SN-13 as measured by EPA Reference Method 9. [§18.501 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 20. Weekly observations of the opacity from source SN-13 shall be conducted by personnel familiar with the permittee's visible emissions. The permittee shall accept such observations for demonstration of compliance. The permittee shall maintain personnel trained in EPA Reference Method 9. If visible emissions which appear to be in excess of the permitted opacity are detected, the permittee shall immediately take action to identify the cause of the visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request. [§18.1004 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
 - a. The date and time of the observation;
 - b. If visible emissions which appeared to be above the permitted limit were detected;
 - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken;
 - d. The name of the person conducting the opacity observations.
- 21. Any package boiler brought on site must have a maximum heat input capacity of 86 MMBtu/hr or less and be natural gas fired. [§19.901, 40 CFR Part 52, Subpart E, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 70.6]
- 22. The permittee shall submit the make, model, year of construction, and the capacity for each package boiler brought on site during the six month reporting period. Records shall be submitted in accordance with General Provision 7. [§19.705 and 40 CFR Part 52, Subpart E]
- 23. The permittee shall conduct compliance testing for the NO_x emissions from the package boiler (SN-13). Testing shall be conducted every two years using EPA Reference Method 7E or an ADEQ approved methodology by October 1 of applicable years. The permittee shall conduct the compliance testing and subsequent reporting in accordance with Plantwide Condition 3. [§19.702, §19.901, and 40 CFR Part 52, Subpart E]
- 24. If the package boiler brought on site is an affected facility as described by 40 CFR §60.40c(a), the permittee shall record and maintain records of the amount of natural gas

Permit: 0271-AOP-R7

AFIN: 21-00036

combusted in the boiler during each day the package boiler is operational. These records shall be maintained on site and made available to Department personnel upon request. These records shall be submitted in accordance with General Provision 7. [§19.304 and 40 CFR §60.48c(g)]

Permit: 0271-AOP-R7 AFIN: 21-00036

Pulp Mill Operations

SN-14F Pulping Material Storage Piles

Source Description

Source SN-14F is the pulping material storage piles at the Cypress Bend Mill. Pulping material is received into the mill at two truck dumps and one rail car dump. The truck shipments of pulping material are unloaded at an inclining truck dump, and the rail-delivered pulping material is emptied by inverting the rail cars and dropping the material into an underground hopper. From the two delivery points, the pulping material is conveyed to the distribution tower and is then dropped onto the storage piles. The other truck dump deposits pulping material onto the cement pad that stores the pulping material. The freshly deposited pulping material is then pushed onto the storage pile. Three piles of material are used for storage, and fugitive VOC emissions are released from the piles. Emission limits for this source are based on published emission factors at the time of permit issuance. The development of new or different emissions data which affects the estimated emission limits from this source will not be considered a violation of the pollutant emission limits established in this permit.

The pulping material storage piles feed the conveyors that bring the material to the Digesters for cooking. The pulping material conveying system regulates the flow of material from the Pulping Material Receiving and Storage Area to the digesters. All parts of the conveying system are enclosed, which eliminates airborne debris from the transport of pulping material.

Specific Conditions

25. The permittee shall not exceed the emission limits set forth in the following table for source SN-14F. The pound per hour pollutant emission limit is based on the maximum hourly production and the ton per year pollutant is effectively limited by Specific Condition 27. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	42.1	184.3
PM_{10}	0.1	0.2

26. The permittee shall not exceed the emission limits set forth in the following table for source SN-14F. The pound per hour pollutant emission limit is based on the maximum hourly production and the ton per year pollutant is effectively limited by Specific Condition 27. [§18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Permit: 0271-AOP-R7

Pollutant	lb/hr	tpy
PM	0.1	0.3

- 27. The permittee shall process no more than 1,543,092 tons of pulping material during any consecutive twelve month period. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 70.6]
- 28. The permittee shall maintain monthly records which demonstrate compliance with the limit set in Specific Condition 27. These may be used by the Department for enforcement purposes. Compliance shall be determined by a twelve-month rolling total of the monthly records of pulping material processed. Each month's total along with the current rolling total shall be available for inspection by the last day of the month following the month to which the records pertain. These records shall be maintained on site and shall be provided to Department personnel upon request. These records shall be submitted in accordance with General Provision 7. [§19.705 and 40 CFR Part 52, Subpart E]

Permit: 0271-AOP-R7 AFIN: 21-00036

ATTN: 21-00050

SN-15 Batch Digesters

Source Description

Source SN-15 is the mill's five batch digesters. The function of the digesters is to cook the pulping material using white liquor, black liquor, and steam from the boiler room. In the digestion process, these products are combined and cooked at a set pressure and temperature until a quality of pulp is obtained. At the end of each cook, the blow valve at the bottom of the digester is opened. The pressure in the digester forces the pulp mass through a blow line into the blow tank.

The mill has one large cylindrical blow tank located east of the digesters. The blow tank is at atmospheric pressure, and the mass from the digesters enters the blow tank tangentially at the top. When the pulping material hits the lower pressure in the tank, the liquor and water flash, blowing apart the pulping material to produce the pulp fibers. The fibers and the spent cooking liquor then fall to the bottom of the blow tank.

The vapors from the blow tank exit through a vapor line at the top of the blow tank. The vapors from the tank are sent to the blow heat condensing system. Flow to the condensing system is maintained in the absence of blow downs by steam supplements. There is a series of condensers that remove condensable gases (primarily turpentine) from the blow gas. The steam vapors are condensed in the accumulator tank and used to heat hot water in the washers. Gases that do not condense are sent to the Lime Kiln or the non-condensable gas (NCG) Thermal Oxidizer for destruction. Since the blow tank and cyclone are closed units, there are no air emissions from these units.

When the digesters are uncapped and filled with pulping material, some of the gas is displaced from the digesters to the atmosphere. This gas stream is the source of the digester's emissions. During the cooking process, the non-condensable gases (NCGs) from the digesters and blow tanks are sent through a series of condensers and are then routed to the NCG system. Emission limits for this source are based on published emission factors at the time of permit issuance. The development of new or different emissions data which affects the estimated emission limits from this source will not be considered a violation of the pollutant emission limits established in this permit. The digesters commenced construction after September 24, 1976 and are therefore subject to 40 CFR Part 60 Subpart BB. This source is also subject to the applicable provisions of 40 CFR Part 63, Subpart A - General Provisions and 40 CFR Part 63, Subpart S - National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. A copy of Subpart S is included in Appendix F of this permit.

Specific Conditions

29. The permittee shall not exceed the emission limits set forth in the following table for source SN-15. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment. The ton per year emission limit is also

Permit: 0271-AOP-R7

AFIN: 21-00036

effectively limited by Specific Condition 27 and 33. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	65.9	288.6

30. The permittee shall not exceed the emission limits set forth in the following table for source SN-15. Compliance with the emission limits is demonstrated through compliance with Specific Condition 27. [§19.501, §19.304, 40 CFR Part 52, Subpart E and 40 CFR §60.283]

Pollutant	lb/hr	tpy
	4.4	19.3
TRS	5 ppmdv corrected to 10% O ₂ Based on a 12 hr average	

31. The permittee shall not exceed emission limits set forth in the following table for source SN-15. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment. The ton per year emission limit is also effectively limited by Specific Condition 27. [§18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
Acetone	0.17	0.72
Acetaldehyde	0.13	0.54
Carbon Tetrachloride	0.06	0.24
Methanol	2.60	11.20
MEK	0.04	0.14
Styrene	0.02	0.08

32. The Batch Digesters (SN-15) are subject to and shall comply with all applicable provisions of 40 CFR Part 60 Subpart A General Provisions and Subpart BB Standards of Performance for Kraft Pulp and Paper Mills because the equipment was constructed or modified after September 24, 1976. A copy of Subpart BB is provided in Appendix A.

Permit: 0271-AOP-R7

AFIN: 21-00036

33. All non-condensable gases from the Batch Digesters (SN-15) shall be routed to efficient incineration (1200 °F for at least 0.5 seconds) at the NCG Thermal Oxidizer or the Lime Kiln (backup) at all times. [§19.801, §19.304, and 40 CFR §60.283]

34. Source SN-15 is subject to the applicable provisions of 40 CFR Part 63, Subpart A - General Provisions and 40 CFR Part 63, Subpart S - National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. A copy of Subpart S is included in Appendix F of this permit. The applicable provisions of this subpart include, but are not necessarily limited to, the items outlined in Specific Conditions 37 through 40.

Permit: 0271-AOP-R7 AFIN: 21-00036

SN-10 Brown Stock Washers

Source Description

When the pulp and liquor exit the blow tank, the pulp goes through several processing steps before it is stored in the unbleached high density storage chest. Knots can be undercooked wood chips or irregularly shaped or overly thick pieces of wood. The pulp mill employs pressure knotters to remove these pieces of wood from the pulp. These Pressure Knotters operate at pressures exceeding atmospheric and therefore have no atmospheric vents.

Material rejected in the pressure knotter is sent to the knot drainer for further separation. Knots are returned to the digester for further processing and any useful pulp is sent to the brown stock washing system. Under atmospheric conditions, knotting operations can contribute TRS and VOC emissions due to the operation of the knotters/screens reject handling operations. There are no emission factors for knot draining currently available and emissions from these units are considered to be negligible.

Source SN-10 is the mill's brown stock washer system. Pulp is washed to remove spent cooking chemicals. The mill employs four horizontal Brown Stock Washers for the washing operation. Wash water and the pulp move in countercurrent directions in the brown stock washing process. The washed pulp is passed through screening and cleaning stages which remove debris from the stock. Emission limits for this source are based on published emission factors at the time of permit issuance. The development of new or different emissions data which affects the estimated emission limits from this source will not be considered a violation of the pollutant emission limits established in this permit. The brown stock washers commenced construction prior to September 24, 1976, and are therefore not subject to 40 CFR Part 60 Subpart BB.

Specific Conditions

35. The permittee shall not exceed the emission limits set forth in the following table for source SN-10. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment. The ton per year pollutant emission limit is also effectively limited by Plantwide Condition 8. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	151.7	664.4
TRS	17.2	75.2

36. The permittee shall not exceed the air contaminant and hazardous air pollutant (HAP) emission limits set forth in the following table for source SN-10. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the

Permit: 0271-AOP-R7

AFIN: 21-00036

equipment. The ton per year pollutant emission limits are also effectively limited by Plantwide Condition 8. [§18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
Acetone	3.3	14.5
Acetaldehyde	0.79	3.50
Acrolein	0.02	0.06
Carbon Tetrachloride	0.08	0.33
Chloroform	0.06	0.27
Methanol	25.90	113.50
MEK	0.33	1.50
Styrene	0.09	0.39
1, 2, 4 - Trichloroethylene	0.01	0.01
Tetrachloroethylene	0.03	0.13

Standards for the Pulping System at Kraft Processes

- 37. The owner or operator of each pulping system using the Kraft process subject to the requirements of 40 CFR 63, Subpart S, shall control the total HAP emissions from the following equipment systems, as specified in §63.443(c) and §63.443 (d) (Specific Conditions 38 and 39, respectively). [§19.304 and 40 CFR §63.443(a)]
 - a. At existing affected sources, the total HAP emissions from the following equipment systems shall be controlled:
 - i. Each LVHC system;
 - ii. Each knotter or screen system with total HAP mass emission limits greater than or equal to the rates specified in paragraphs (a)(1)(ii)(A) or (a)(1)(ii)(B) of this section or the combined rate specified in paragraph (a)(1)(ii)(C) of this section.
 - 1. Each knotter system with emissions of 0.05 kilograms or more of total HAP per megagram of ODP (0.1 pounds per ton).
 - 2. Each screen system with emissions of 0.10 kilograms or more of total HAP per megagram of ODP (0.2 pounds per ton).
 - 3. Each knotter and screen system with emissions of 0.15 kilograms or more of total HAP per megagram of ODP (0.3 pounds per ton).
 - iii. Each pulp washing system;
 - iv. Each decker system that:

Permit: 0271-AOP-R7

- 1. Uses any process water other than fresh water or paper machine white water; or
- 2. Uses any process water with a total HAP concentration greater than 400 parts per million by weight; and
- v. Each oxygen delignification system.
- 38. Equipment systems listed in Specific Condition 37 shall be enclosed and vented into a closed-vent system and routed to a control device that meets the requirements specified in §63.443(d) (Specific Condition 39). The enclosures and closed-vent system shall meet the requirements specified in §63.450. [§19.304 and 40 CFR §63.443(c)]
- 39. The control device used to reduce total HAP emissions from each equipment system listed in §63.443(a) (Specific Condition 37) of this section shall implement the following. [§19.304 and 40 CFR §63.443(d)]
 - a. Reduce total HAP emissions by 98% or more by weight; or
 - b. Reduce the total HAP concentration at the outlet of the thermal oxidizer to 20 ppmdv or less, corrected to 10% oxygen; or
 - c. Reduce total HAP emissions using a thermal oxidizer designed and operated at a minimum temperature of 871° C (1600° F) and a minimum residence time of 0.75 seconds; or
 - d. Reduce total HAP emissions using a boiler, lime kiln, or recovery furnace by introducing the HAP emission stream with the primary fuel or into the flame zone.
- 40. Periods of excess emissions reported under §63.455 shall not be a violation of §63.433(c) and (d) (Specific Conditions 38 and 39, respectively) provided that the time of excess emissions (excluding periods of startup, shutdown, or malfunction) divided by the total process operating time in a semi-annual reporting period does not exceed the following levels. [§19.304 and 40 CFR §63.443(e)]
 - a. One percent for control devices used to reduce the total HAP emissions from the LVHC system; and
 - b. Four percent for control devices used to reduce the total HAP emissions from the HVLC system; and
 - c. Four percent for control devices used to reduce the total HAP emissions from both the LVHC and the HVLC systems.

Permit: 0271-AOP-R7 AFIN: 21-00036

Bleach Plant Operations

SN-06 Bleach Plant Scrubber

Source Description

The unbleached Kraft pulp is taken from the high density storage chest for further processing in the bleach plant. The bleaching process removes the remaining lignin and Kraft color from the unbleached pulp. Bleaching is performed in several stages using chlorine/chlorine dioxide, caustic soda, oxygen, ozone, and hydrogen peroxide. The bleach plant uses a scrubber to control the chlorine/chlorine dioxide emissions.

Source SN-06 is the mill's bleach plant scrubber. The mill utilizes a wet scrubber to control emissions from the bleach plant. The Bleach Plant Scrubber controls emissions from the sequential processing and washing stages of the bleaching operations. Significant equipment associated with the bleaching process is either pressurized or kept under negative pressure and connected to the scrubber. This equipment was installed in 1985. Emission limits for this source are based on published emission factors at the time of permit issuance. The development of new or different emissions data which affects the estimated emission limits from this source will not be considered a violation of the pollutant emission limits established in this permit. This source is subject to the applicable provisions of 40 CFR Part 63, Subpart A - General Provisions and 40 CFR Part 63, Subpart S - National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. A copy of Subpart S is included in Appendix F of this permit.

Specific Conditions

41. The permittee shall not exceed the emission limits set forth in the following table for source SN-06. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment along with proper operation of the control equipment as prescribed in Specific Condition 43. The ton per year pollutant emission limits are also effectively limited by Plantwide Condition 8. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	8.5	36.9
СО	39.5	172.8

42. The permittee shall not exceed the emission limits set forth in the following table for source SN-06. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment along with proper operation of the control equipment as prescribed in Specific Condition 43. The ton per year pollutant emission

AFIN: 21-00036

limits are also effectively limited by Plantwide Condition 8. [§18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
ClO ₂	1.8	7.9
Chlorine	2.60	11.40
Chloroform	5.50	24.10
Methanol	2.90	12.50
MEK	0.04	0.15
Styrene	0.04	0.15
1, 2, 4 - Trichlorobenzene	0.11	0.47

- 43. The permittee shall continuously operate the wet scrubber system whenever the Bleach Plant is in operation. Bypassing this control equipment shall be considered a violation of emission limits. The wet scrubber system shall be operated within its design limitations and maintained in serviceable condition at all times. [§19.303 and A.C.A. §8-4-203(a) as referenced by A.C.A. §8-4-304 and §8-4-311]
- 44. Source SN-06 is subject to the applicable provisions of 40 CFR Part 63, Subpart A General Provisions and 40 CFR Part 63, Subpart S National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. A copy of Subpart S is included in Appendix F of this permit. The applicable provisions of this subpart include, but are not necessarily limited to, the items outlined in Specific Conditions 45 through 48.
- 45. The equipment at each bleaching stage, of the bleaching systems listed in §63.445(a), where chlorinated compounds are introduced shall be enclosed and vented into a closed-vent system and routed to a control device that meets the requirements specified in §63.445(c) (Specific Condition 46) of this section. The enclosures and closed-vent system shall meet the requirements specified in §63.450. [§19.304 and 40 CFR §63.445(b)]
- 46. The control device used to reduce the chlorinated HAP emissions (not including chloroform) from the equipment specified in §63.445(b) (Specific Condition 45) shall: [§19.304 and 40 CFR §63.445(c)]
 - a. Reduce the total chlorinated HAP mass in the vent stream entering the control device by 99 percent or more by weight;
 - b. Achieve a treatment device outlet concentration of 10 parts per million or less by volume of total chlorinated HAP; or

Permit: 0271-AOP-R7

AFIN: 21-00036

- c. Achieve a treatment device outlet mass emission limit of 0.001 kg of total chlorinated HAP mass per megagram (0.002 pounds per ton) of ODP.
- 47. The owner or operator of each bleaching system subject to §63.445(a)(2) shall reduce chloroform air emissions to the atmosphere by complying with either option listed below: [§19.304 and 40 CFR §63.445(d)(1) and (2)]
 - a. Complying with the following applicable effluent limitation guidelines and standards specified in 40 CFR Part 430:
 - i. Dissolving-grade Kraft bleaching systems and lines, 40 CFR 430.14 through 430.17; and
 - ii. Paper-grade Kraft bleaching systems and lines, 40 CFR 430.24(a)(1) and (e), and 40 CFR 430.26(a) and (c).
 - b. Using no hypochlorite or chlorine for bleaching in the bleaching system or line.
- 48. Each owner or operator subject to the standards specified in §63.445(b) and (c), (Specific Conditions 45 and 46, respectively) and 63.450(d), shall install, calibrate, certify, operate, and maintain according to manufacturer's specifications, a continuous monitoring system (CMS, as defined in 40 CFR §63.2, except as allowed in §63.453(m). The CMS shall include a continuous recorder. The CMS shall be operated to measure the following parameters:
 - a. The pH or the oxidation/reduction potential of the gas scrubber effluent;
 - b. The gas scrubber vent gas inlet flow rate; and
 - c. The gas scrubber liquid influent flow rate.
 - d. In lieu of items a through c of this specific condition, a CMS shall be operated to measure the chlorine outlet concentration of each gas scrubber used to comply with the bleaching system outlet concentration requirement specified in §63.445(c)(2) (Specific Condition 46).

[§19.304 and 40 CFR §63.453(a), (c), & (d)]

Permit: 0271-AOP-R7 AFIN: 21-00036

SN-07 Chlorine Dioxide Generator

Source Description

Source SN-07 is the mill's chlorine dioxide generator. Chlorine dioxide is generated using sodium chlorate, methanol, and sulfuric acid. Produced chlorine dioxide gas is absorbed in chilled water and sent to storage for further use in the bleaching operation. The Tail Gas Scrubber controls emissions from the Chlorine Dioxide Generator and chlorine dioxide distribution system. This equipment was installed in 1990.

Specific Conditions

49. The permittee shall not exceed the emission limits set forth in the following table for source SN-07. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment along with proper operation of the control equipment as prescribed in Specific Condition 51. The ton per year pollutant emission limits are also effectively limited by Plantwide Condition 8. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	0.1	0.2

50. The permittee shall not exceed the air contaminant and hazardous air pollutant (HAP) emission limits set forth in the following table for source SN-07. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment along with proper operation of the control equipment as prescribed in Specific Condition 51. The ton per year pollutant emission limits are also effectively limited by Plantwide Condition 8. [§18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
ClO ₂	2.32	10.2
Acetone	0.01	0.01
Chlorine	0.30	1.30
Acetaldehyde	0.01	0.01
Chloroform	0.01	0.03
Formaldehyde	0.01	0.02
Methanol	0.01	0.05

Permit: 0271-AOP-R7

AFIN: 21-00036

Pollutant	lb/hr	tpy
Styrene	0.01	0.01

51. The permittee shall continuously operate the wet scrubber system whenever the Chlorine Dioxide Generator is in operation. Bypassing this control equipment shall be considered a violation of emission limits. The wet scrubber system shall be operated within its design limitations and maintained in serviceable condition at all times. [§19.303 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Permit: 0271-AOP-R7

AFIN: 21-00036

Recovery Process

SN-01, SN-02, and SN-03 are subject to 40 CFR 63, Subpart MM, the requirements of which are collected at the end of this section starting with Specific Condition 111.

SN-02 Recovery Furnace

Source Description

The recovery processes at the mill are designed to reclaim the pulp cooking chemicals and provide process heat for mill operations. Spent cooking liquor and the pulp wash water are combined to form a weak black liquor which is concentrated in an evaporator system to a strong black liquor of about 69% solids. There are six effects and three pre-evaporator stages in the evaporator train at the mill, each effect operating at a different pressure. The concentrator and finisher follow the evaporator train. The heavy black liquor is then fired in the Recovery Furnace (SN-02). Combustion of the organics dissolved in the black liquor provides heat for generating process steam and for converting sodium sulfate to sodium sulfide. Inorganic chemicals present in the black liquor collect as a molten smelt at the bottom of the furnace.

Source SN-02 is the mill's recovery furnace. The recovery furnace is the heart of the chemical recovery process at the mill. This unit serves to recover the inorganic chemicals that are necessary for making pulp from pulping material. The furnace is fired with black liquor produced from the digestion of the pulping material in the Batch Digesters. After being concentrated in the evaporator system, the black liquor has a high solids content and a high heating value which makes it ideal for firing in the Recovery Furnace. Flue gas from the furnace is sent through an economizer, followed by an electrostatic precipitator (ESP). The ESP is used to control particulate matter emissions from the furnace. The Recovery Furnace was modified after September 24, 1976, and is therefore subject to 40 CFR Part 60 Subpart BB. The Recovery Furnace is also subject to 40 CFR Part 60 Subpart Db since it burns small amounts of fossil fuel during startup and shutdown (i.e., natural gas and low sulfur distillate oil).

Specific Conditions

52. The permittee shall not exceed the emission limits set forth in the following table for source SN-02. The pound per hour and ton per year pollutant emission limits for VOCs are based on the maximum capacity of the equipment. The tpy is also effectively limited by Specific Condition 68. Compliance with the emission limits is also demonstrated through proper operation of the control equipment. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	9.5	38.1

Permit: 0271-AOP-R7

AFIN: 21-00036

53. The permittee shall not exceed the emission limits set forth in the following table for source SN-02. Compliance with the emission limits is demonstrated through compliance with Specific Conditions 60 and 61 and through proper operation of the control equipment. These emission limits also satisfy the particulate matter requirement contained in 40 CFR §60.282(a)(1)(i). [§19.501, §19.901 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM/PM ₁₀	55.3	223.4
PM/PM ₁₀	0.0294 gr/dscf corrected to 8% O ₂	

54. The permittee shall not exceed the emission limits set forth in the following table for source SN-02. Compliance with the emission limits is demonstrated through compliance with Specific Condition 62. [§19.501, §19.901, and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
9.0	125.6	164.8
SO_2	86 ppmdv corrected to 8% O based on a 12 hr average	

55. The permittee shall not exceed the emission limits set forth in the following table for source SN-02. Compliance with the emission limits is demonstrated through compliance with Specific Condition 63. [§19.501 and §19.901, and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
GO.	269.4	1081.8
СО	300 ppmdv corrected to 8% (based on a 12 hr average	

56. The permittee shall not exceed the emission limits set forth in the following table for source SN-02. Compliance with the emission limits is demonstrated through compliance with Specific Condition 64. [§19.501, §19.901, and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
No	162.3	651.6
NO _x	110 ppmdv corrected to 8% O ₂ based on a rolling 30-day average	

Permit: 0271-AOP-R7

AFIN: 21-00036

57. The permittee shall not exceed the emission limits set forth in the following table for source SN-02. Compliance with the emission limits is demonstrated through compliance with Specific Condition 65. [§19.501, §19.804, §19.901, 40 CFR Part 52, Subpart E, and 40 CFR §60.283]

Pollutant	lb/hr	tpy
TTD 0	5.5	21.9
TRS	5 ppmdv corrected to 8% O ₂ Based on a 12 hr average	

The permittee shall not exceed the air pollutant emission limits set forth in the following table for source SN-02. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Specific Condition 68. [§18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
H_2SO_4	1.9	8.3
Acetaldehyde	0.04	0.15
Formaldehyde	0.59	2.35
HCl	4.50	18.10
Methanol	3.80	15.10
Styrene	0.04	0.17
Chromium VI	0.01	0.01

- 59. The permittee shall not exceed 20% opacity from source SN-02 as measured by EPA Reference Method 9. Compliance shall be demonstrated through compliance with Specific Condition 66. [§19.901, 40 CFR §60.282(a)(1)(ii), and 40 CFR Part 52, Subpart E]
- 60. The permittee shall continue to conduct compliance testing for PM and PM₁₀ emissions from the recovery boiler ESP (SN-02). The permittee shall correct the particulate emissions measured during the test to 8% O₂. PM testing shall be conducted every two years using EPA Reference Method 5 and 202. The permittee may report all emissions measured using EPA Reference Method 5 and 202 as PM₁₀ or the permittee may conduct separate PM₁₀ testing using EPA Reference Method 201A and 202. Method 5 results without back-half emissions shall be used to demonstrate compliance with the BACT limit of Specific Condition 53. The permittee shall conduct the compliance testing and subsequent reporting in accordance with Plantwide Condition 3. If the permittee chooses

Permit: 0271-AOP-R7

AFIN: 21-00036

not to conduct separate tests for PM and PM $_{10}$, the results of the PM test shall be accepted for compliance demonstration with the PM $_{10}$ emission limits. If the average of all the PM10 tests performed in a calendar year is in excess of 51.0 pounds per hour ((51.0*8760)/2000 = 223.4 tpy), it will be considered a violation of the annual emission limit for PM10. If the average of all PM tests performed in a calendar year is in excess of 52.1 pounds per hour ((52.1*8760)/2000 = 228.4 tpy), it will be considered a violation of the annual emission limit for PM. [§19.702, §19.901, and 40 CFR Part 52, Subpart E]

- 61. The permittee shall modify or replace the equipment controlling the PM/PM₁₀ emissions from the recovery furnace (SN-02) when it becomes evident that the existing equipment will not be able to guarantee acceptable compliance with the permit limits. The results from the bi-annual testing required by Specific Condition 60 and the opacity monitoring data required by Specific Condition 66 will be used to determine the status of the existing control equipment. Should replacement be necessary, the control equipment will be required to meet a PM/PM₁₀ emission limit consistent with the Best Available Control Technology (BACT) at the time of the modification. In no event shall this emission limit be greater than 0.021 gr/dscf. [§19.901, 40 CFR Part 52, Subpart E, and 40 CFR §60.282(a)(1)(i)]
- 62. The permittee shall continue to calibrate and maintain a CEMS which records the concentration of SO₂ leaving the recovery furnace (SN-02). The SO₂ monitor shall be operated in accordance with the ADEQ CEMS Conditions and shall be operated at all times including during startup and shutdown. The concentrations of SO₂ shall be corrected to 8% oxygen and averaged over a 12-hour period. The 12-hour average shall be determined as the arithmetic mean of the appropriate 12 contiguous one hour average concentrations. A day shall define two continuous 12-hour periods. The facility may define the day and the two continuous 12-hour periods; however, once the day is defined the facility shall remain consistent and the time which defines a day shall not be changed. [§19.703, §19.901, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 63. The permittee shall continue to calibrate and maintain a CEMS which records the concentration of CO leaving the recovery furnace (SN-02). The CO monitor shall be operated in accordance with the ADEQ CEMS Conditions and shall be operated at all times including during startup and shutdown. The concentrations of CO shall be corrected to 8% oxygen and averaged over a 12-hour period. The 12-hour average shall be determined as the arithmetic mean of the appropriate 12 contiguous one hour average concentrations. A day shall define two continuous 12-hour periods. The facility may define the day and the two continuous 12-hour periods; however, once the day is defined the facility shall remain consistent and the time which defines a day shall not be changed. [§19.703, §19.901, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 64. The permittee shall continue to calibrate and maintain a CEMS which records the concentration of NO_x leaving the recovery furnace (SN-02). The NO_x monitor shall be

Permit: 0271-AOP-R7

AFIN: 21-00036

operated in accordance with the ADEQ CEMS Conditions and shall be operated at all times including during startup and shutdown. The concentrations of NO_x shall be corrected to 8% oxygen. Compliance will be demonstrated on a rolling 30-day average. [§19.703, §19.901, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

- 65. The permittee shall continue to calibrate and maintain a CEMS which records the concentration of TRS leaving the recovery furnace (SN-02). The TRS monitor shall be operated in accordance with the ADEQ CEMS Conditions and shall be operated at all times including during startup and shutdown. The concentrations of TRS shall be corrected to 8% oxygen and averaged over a 12-hour period as specified in 40 CFR Part 60, Subpart BB, Section 60.284(c)(1). [§19.304 and 40 CFR §60.284(a)(2)]
- 66. The permittee shall continue to calibrate and maintain a continuous opacity monitoring system (COMS) which records the opacity of the gases leaving the recovery furnace (SN-02). The opacity monitor shall be operated in accordance with the ADEQ CEMS Conditions and shall be operated at all times including during startup and shutdown. [§19.901, 40 CFR Part 52, Subpart E, and 40 CFR §60.284(a)(1)]
- 67. The permittee shall combust black liquor solids, distillate fuel oil, and natural gas in the Recovery Furnace (SN-02). [§19.901, 40 CFR Part 52, Subpart E, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]
- 68. The permittee shall not fire in excess of 501,875 tons of black liquor solids during any consecutive twelve month period in the Recovery Furnace (SN-02). [§19.901, 40 CFR Part 52, Subpart E, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]
- 69. The permittee shall maintain monthly records which demonstrate compliance with the limit set in Specific Condition 68. These may be used by the Department for enforcement purposes. Compliance shall be determined by a twelve-month rolling total of the monthly records of black liquor solids fired. Each month's total along with the current rolling total shall be available for inspection by the last day of the month following the month to which the records pertain. These records shall be maintained on site and shall be provided to Department personnel upon request. These records shall be submitted in accordance with General Provision 7. [§19.705, §19.901, and 40 CFR Part 52, Subpart E]
- 70. When not combusting black liquor solids, the permittee shall only combust natural gas and distillate oil with a nitrogen content of 0.3 weight percent or less. In lieu of supplier certifications the permittee may demonstrate compliance with this condition by meeting applicable NO_x limits as verified by CEMS required by Specific Condition 64. [§19.304 and 40 CFR Part 60, Subpart Db]

Permit: 0271-AOP-R7

- 71. The permittee shall not exceed 10 percent for the combined annual natural gas + oil capacity factor at the boiler. [§19.304 and 40 CFR Part 60, Subpart Db]
- 72. The permittee shall record and maintain records of the amount of natural gas and distillate oil combusted during each day and calculate the annual capacity factor for each calendar quarter. 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. [§19.304 and 40 CFR §60.49b(d)]
- 73. The permittee shall determine the annual capacity factor from each fossil fuel by dividing the actual heat input to the boiler during the calendar year from the combustion of each fossil fuel by the potential heat input to the boiler if the boiler had been operated for 8,760 hours at the maximum design heat input capacity. [§19.304 and 40 CFR §60.49b(d)]
- 74. The permittee shall limit the sulfur content in the low sulfur (distillate) fuel oil to 0.5 percent or less. The permittee shall obtain a sulfur content certification from the fuel oil supplier and maintain records of the amount of low-sulfur (distillate) fuel oil combusted in the Recovery Furnace (SN-02). These records shall be maintained on site and shall be provided to Department personnel upon request. These records shall be submitted in accordance with General Provision 7. [§19.304 and 40 CFR §60.49b(r)]
- 75. Reserved.
- 76. Reserved.

Permit: 0271-AOP-R7 AFIN: 21-00036

SN-03 Smelt Dissolving Tank

Source Description

The smelt is dissolved in water to form green liquor, which is transferred to a causticizing tank where quicklime (CaO) is added to convert the solution back to white liquor for return to the digester system. A lime mud precipitates from the causticizing tank, after which it is calcined in the Lime Kiln to regenerate quicklime.

Source SN-03 is the mill's smelt dissolving tank. Smelt flows freely from the Recovery Furnace to the Smelt Dissolving Tank where it is mixed with a weak caustic solution from the mud washing process to become green liquor. Emissions from the Smelt Dissolving Tank are controlled by a dedicated wet venturi and wet packed-bed scrubber system in series. The Smelt Dissolving Tank commenced construction before September 24, 1976, and is therefore not subject to 40 CFR Part 60 Subpart BB.

It should be noted that the permitted and/or actual emissions from this source changed in past permits, the source itself was not being modified. Therefore, this source did not undergo a BACT review for this PSD permit but was considered in the Ambient Air Impact Analysis.

Specific Conditions

77. The permittee shall not exceed the emission limits set forth in the following table for source SN-03. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Specific Conditions 68. Compliance is also demonstrated through proper operation of the control equipment and Specific Condition 83. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM_{10}	7.7	30.9
SO_2	6.0	26.3
VOC	5.1	22.4
Lead	0.01	0.02

78. The permittee shall not exceed the emission limits set forth in the following table for source SN-03. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Specific Condition 68. [§19.501, §19.901, and 40 CFR Part 52, Subpart E]

Permit: 0271-AOP-R7

AFIN: 21-00036

Pollutant	lb/hr	tpy
NO_x	6.6	26.5

79. The permittee shall not exceed the emission limits set forth in the following table for source SN-03. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Specific Condition 68. Compliance is also demonstrated by Specific Condition 84. [§19.501, §19.804, §19.901, and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
TRS	1.1	4.3
	0.0168 g H ₂ S/kg BLS	
	based on a 12 hr average	

80. The permittee shall not exceed the emission limits set forth in the following table at source SN-03. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Specific Condition 68. [§18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
Methanol	0.75	3.10
Arsenic	0.01	0.01
Cadmium	0.01	0.01
PM	7.7	30.9

- 81. The permittee shall not exceed 20% opacity from source SN-03 as measured by EPA Reference Method 9. [§19.503 and 40 CFR Part 52, Subpart E]
- 82. Weekly observations of the opacity from source SN-03 shall be conducted by personnel familiar with the permittee's visible emissions. The permittee shall accept such observations for demonstration of compliance. The permittee shall maintain personnel trained in EPA Reference Method 9 after the next scheduled, Department sponsored Visible Emissions Training. If visible emissions which appear to be in excess of the permitted opacity are detected, the permittee shall immediately take action to identify the cause of the visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request.

Permit: 0271-AOP-R7

AFIN: 21-00036

[§19.705 and 40 CFR Part 52, Subpart E]

- a. The date and time of the observation;
- b. If visible emissions which appeared to be above the permitted limit were detected;
- c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken:
- d. The name of the person conducting the opacity observations.
- 83. The permittee shall continue to conduct compliance testing for the PM and PM₁₀ emissions from the smelt dissolving tank scrubber (SN-03) using EPA Reference Method 5 and 202. The permittee may report all emissions measured using EPA Reference Method 5 and 202 as PM₁₀ or the permittee may conduct separate PM₁₀ testing using EPA Reference Method 201A and 202. Testing shall be conducted every five years on or before October 1 of applicable years. The permittee shall conduct the compliance testing and subsequent reporting in accordance with Plantwide Condition 3. An hourly emission limit in excess of 7.06 lb/hr will be considered a violation of the annual emission limit. (7.06 lb/hr * 8760 hr/yr * 1 ton/2000 lb = 30.9 tpy) [§19.702 and 40 CFR Part 52, Subpart E]
- 84. The permittee shall continue to conduct compliance testing for the TRS emissions from the smelt dissolving tank scrubber (SN-03) using EPA Reference Method 16B. The permittee must demonstrate compliance with the lb/hr and the g H₂S/kg BLS limits contained in Specific Condition 79. Testing shall be conducted every five years on or before October 1 of applicable years. The permittee shall conduct the compliance testing and subsequent reporting in accordance with Plantwide Condition 3. [§19.702, §19.901 and 40 CFR Part 52, Subpart E]
- 85. The permittee shall continuously operate the wet scrubber system whenever the Smelt Dissolving Tank is in operation. Bypassing this control equipment shall be considered a violation of emission limits. The wet scrubber system shall be operated within its design limitations and maintained in serviceable condition at all times. [§19.303 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 86. Reserved.
- 87. Reserved.
- 88. Reserved.
- 89. Reserved.

Permit: 0271-AOP-R7 AFIN: 21-00036

6

SN-01 Lime Kiln

Source Description

Source SN-01 is the mill's lime kiln. Lime is added to green liquor in the Slakers to begin the causticizing process. In this process, quicklime (CaO) is used to regenerate white liquor (Na₂S) from green liquor (Na₂CO₃). Lime mud precipitate (primarily calcium carbonate [CaCO₃]) generated in the causticizing process is calcined in the Lime Kiln to re-generate the CaO. The combustion fuel for the Lime Kiln is natural gas and petroleum coke. The Lime Kiln is also the backup incinerator of the non-condensable gases when the NCG Thermal Oxidizer is unavailable.

The Lime Kiln is principally a source of particulate matter emissions composed of mainly sodium salts, calcium carbonate, and calcium oxide. However, products of combustion are also emitted. Particulate matter emissions from the Lime Kiln are controlled by a venturi scrubber. The Lime Kiln commenced construction before September 24, 1976 and is therefore not subject to 40 CFR Part 60 Subpart BB.

Specific Conditions

90. The permittee shall not exceed the emission limits set forth in the following table for source SN-01. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment. Compliance is also demonstrated by Specific Conditions 98, 99, 102, and 107. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	8.3	36.4
СО	7.8	34.2
NO _x	22.6	99.0
Lead	0.03	0.12

91. The permittee shall not exceed the emission limits set forth in the following table for source SN-01. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment. Compliance is also demonstrated by Specific Condition 97. [§19.501, §19.901, and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM_{10}	7.6	32.9

Permit: 0271-AOP-R7

AFIN: 21-00036

92. The permittee shall not exceed the emission limits set forth in the following table for source SN-01. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment. Compliance is also shown by Specific Condition 102 and 104. [§19.501, §19.901, and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
SO_2	10.1	44.1

93. The permittee shall not exceed the emission limits set forth in the following table for source SN-01. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment. Compliance is also demonstrated by Specific Condition 101. [§19.501, §19.804, and 40 CFR Part 52 Subpart E]

Pollutant	lb/hr	tpy
	1.7	7.4
TRS	20 ppmdv corrected to 10% O ₂ Based on a 12 hr average	

94. The permittee shall not exceed the emission limits set forth in the following table for source SN-01. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment. Compliance is also demonstrated by Specific Condition 107. [18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	7.6	32.9
acetone	0.01	0.03
acetaldehyde	0.06	0.24
carbon disulfide	0.03	0.14
chloroform	0.03	0.11
m-cresol	0.09	0.36
o-cresol	0.04	0.18
methanol	0.29	1.23
MEK	0.01	0.04
cadmium	0.01	0.01

Permit: 0271-AOP-R7

Pollutant	lb/hr	tpy
mercury	0.01	0.01

- 95. The permittee shall not exceed 20% opacity from source SN-01 as measured by EPA Reference Method 9. [§19.503 and 40 CFR Part 52, Subpart E]
- 96. Weekly observations of the opacity from source SN-01 shall be conducted by personnel familiar with the permittee's visible emissions. The permittee shall accept such observations for demonstration of compliance. The permittee shall maintain personnel trained in EPA Reference Method 9. If visible emissions which appear to be in excess of the permitted opacity are detected, the permittee shall immediately take action to identify the cause of the visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request. [§19.705 and 40 CFR Part 52, Subpart E]
 - a. The date and time of the observation;
 - b. If visible emissions which appeared to be above the permitted limit were detected;
 - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken;
 - d. The name of the person conducting the opacity observations.
- 97. The permittee shall continue to conduct compliance testing for the particulate matter emissions from the lime kiln scrubber (SN-01) using EPA Reference Method 5 and 202. The permittee may report all emissions measured using EPA Reference Method 5 and 202 as PM₁₀ or the permittee may conduct separate PM₁₀ testing using EPA Reference Method 201A and 202. Testing shall be conducted every five years on or before October 1 of applicable years. Testing shall be conducted during the natural gas + pet coke firing scenario. The permittee may test under the natural gas-only scenario if pet coke is no longer used at the time of any required testing. A re-test will be required within 90 days following the use of the pet coke scenario again. Initial testing under the natural gas + pet coke scenario is required within 180 days of issuance of this permit if it has not already been completed. The permittee shall otherwise conduct the compliance testing and subsequent reporting in accordance with Plantwide Condition 3. [§19.702, §19.901, and 40 CFR Part 52, Subpart E]
- 98. The permittee shall continue to conduct compliance testing for the CO emissions from the lime kiln scrubber (SN-01) using EPA Reference Method 10. Testing shall be conducted every five years on or before October 1 of applicable years. Testing shall be conducted during the natural gas + pet coke firing scenario. The permittee may test under

Permit: 0271-AOP-R7

AFIN: 21-00036

the natural gas-only scenario if pet coke is no longer used at the time of any required testing. A re-test will be required within 90 days following the use of the pet coke scenario again. Initial testing under the natural gas + pet coke scenario is required within 180 days of issuance of this permit if it has not already been completed. The permittee shall otherwise conduct the compliance testing and subsequent reporting in accordance with Plantwide Condition 3. [§19.702 and 40 CFR Part 52, Subpart E]

- 99. The permittee shall continue to conduct compliance testing for the NO_x emissions from the lime kiln scrubber (SN-01) using EPA Reference Method 7E. Testing shall be conducted every five years on or before October 1 of applicable years. Testing shall be conducted during the natural gas + pet coke firing scenario. The permittee may test under the natural gas-only scenario if pet coke is no longer used at the time of any required testing. A re-test will be required within 90 days following the use of the pet coke scenario again. Initial testing under the natural gas + pet coke scenario is required within 180 days of issuance of this permit if it has not already been completed. The permittee shall otherwise conduct the compliance testing and subsequent reporting in accordance with Plantwide Condition 3. [§19.702 and 40 CFR Part 52, Subpart E]
- 100. The permittee shall continue to conduct compliance testing for the SO₂ emissions from the lime kiln scrubber (SN-01) using EPA Reference Method 6C. Testing shall be conducted every five years on or before October 1 of applicable years. Testing shall be conducted during the natural gas + pet coke firing scenario. The permittee may test under the natural gas-only scenario if pet coke is no longer used at the time of any required testing. A re-test will be required within 90 days following the use of the pet coke scenario again. Initial testing under the natural gas + pet coke scenario is required within 180 days of issuance of this permit if it has not already been completed. The permittee shall otherwise conduct the compliance testing and subsequent reporting in accordance with Plantwide Condition 3. [§19.702 and 40 CFR Part 52, Subpart E]
- 101. The permittee shall continue to calibrate and maintain a CEMS which records the concentration of TRS leaving the lime kiln scrubber (SN-01). The TRS monitor shall be operated in accordance with the ADEQ CEMS Conditions. The concentrations of TRS shall be corrected to 10% oxygen and averaged over a 12 hour period. The 12 hour average shall be determined as the arithmetic mean of the appropriate twelve contiguous one hour average concentrations. A day shall define two continuous 12-hour periods. The facility may define the day and the two continuous 12-hour periods; however, once the day is defined the facility shall remain consistent and the time which defines a day shall not be changed. [§19.703, §19.901, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 102. The permittee shall combust only natural gas or a combination of natural gas and petroleum coke in the Lime Kiln (SN-01). The permittee shall not combust in excess of 13,505 tons of petroleum coke during any consecutive 12-month period. Natural gas is unrestricted. [§19.901, 40 CFR Part 52, Subpart E, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]

Permit: 0271-AOP-R7

- 103. The permittee shall maintain monthly records of the amount of petroleum coke combusted in the Lime Kiln (SN-01). Compliance shall be determined by a twelve-month rolling total of monthly pet coke combustion. Records shall be kept on-site and made available to Department personnel upon request. Records shall be submitted in accordance with General Provision 7 of the current permit. [§19.705 and 40 CFR Part 52, Subpart E]
- 104. Petroleum coke sulfur content shall not exceed 7% by weight. [§19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]
- 105. The permittee shall maintain records of supplier's certification of the pet coke sulfur content for each supplier or conduct independent fuel analysis of the pet coke sulfur content. Independent fuel analysis shall use ADEQ-approved methodology. Records shall be kept on-site and made available to Department personnel upon request. [§19.705 and 40 CFR Part 52, Subpart E]
- 106. The permittee shall perform an initial compliance test under the new pet coke firing scenario at SN-01 for the following pollutants using the following methods or other ADEQ-approved test methodology. Testing shall be conducted while combusting petroleum coke and operating at greater than or equal to 90% of the heat input capacity. Petroleum coke usage during testing shall be at a rate at least 90% of the maximum pet coke input as described in Specific Condition 102. Testing shall otherwise be performed in accordance with Plantwide Condition 3. [§19.702 and 40 CFR Part 52, Subpart E]

Pollutant	Test Method
SO_2	6C
PM and PM ₁₀	5+202 or 201A+202
СО	10
NO _x	7E

- 107. The permittee shall not exceed a Lime Kiln production limit of 62,050 tons of calcium oxide (CaO, quicklime) during any consecutive twelve month period. [§19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]
- 108. The permittee shall maintain monthly records which demonstrate compliance with the limit set in Specific Condition 107. These may be used by the Department for enforcement purposes. Compliance shall be determined by a twelve-month rolling total of the monthly records of calcium oxide (CaO, quicklime) produced. Each month's total along with the current rolling total shall be available for inspection by the last day of the month following the month to which the records pertain. These records shall be maintained on site and shall be provided to Department personnel upon request. These

Permit: 0271-AOP-R7

AFIN: 21-00036

records shall be submitted in accordance with General Provision 7. [§19.705 and 40 CFR Part 52, Subpart E]

- 109. The Lime Kiln shall be used as the backup incinerator of the non-condensable gases from the NCG system when the NCG Thermal Oxidizer is unavailable. The permittee shall not route the non-condensable gases from the NCG system to the NCG Thermal Oxidizer and the Lime Kiln simultaneously. The permittee shall maintain a minimum combustion temperature of 1200°F and a minimum retention time of 0.5 seconds when non-condensable gases are being routed to the Lime Kiln. Compliance with the minimum temperature requirement and minimum retention time shall be demonstrated through the design and proper operation of the equipment. [§19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]
- 110. The permittee may use the lime kiln to control HAP emissions from the LVHC system by introducing the HAP emission stream with the primary fuel or into the flame zone. The permittee shall not route the gases from the LVHC system to the NCG Thermal Oxidizer and the lime kiln simultaneously. [§19.304 and 40 CFR §63.443(d)(4)]

NESHAP Subpart MM Requirements

- 111. From the recovery furnace (SN-02) the permittee shall not exceed a PM concentration of 0.10 gram per dry standard cubic meter (0.044 grain per dry standard cubic foot) corrected to 8% O₂. Compliance shall be demonstrated by the requirements of Specific Conditions 115 and 116. [§19.304 and 40 CFR §63.862(a)(1)(i)(A)]
- 112. From the Smelt Dissolving Tank (SN-03) the permittee shall not exceed a PM concentration of 0.10 kilograms per megagram (0.20 pounds per ton) of black liquor solids fires. Compliance shall be demonstrated by the requirements of Specific Conditions 115 and 116. [§19.304 and 40 CFR §63.862(a)(1)(i)(B)]
- 113. From the Lime Kiln (SN-01) the permittee shall not exceed a PM concentration of 0.15 grams per dry standard cubic meter (0.064 grains per dry standard cubic foot) corrected to 10% O₂. Compliance shall be demonstrated by the requirements of Specific Conditions 115 and 116. [§19.304 and 40 CFR §63.862(a)(1)(i)(C)]
- 114. At the recovery furnace (SN-02) the permittee shall operate a continuous opacity monitoring system (COMS) to determine opacity at least once every successive 10-second period. The permittee shall calculate and record each successive 6-minute average opacity. The COM shall comply with the ADEQ CEMS Conditions. [§19.304 and 40 CFR §63.864(d)(3)]
- 115. At the Smelt Dissolving Tank (SN-03) and Lime Kiln (SN-01) the permittee shall operate a continuous parameter monitoring system (CPMS) to determine and record the scrubber pressure drop and liquor flow rate. Proper pressure drop and liquor flow shall be determined during performance testing. As an alternative, the permittee may monitor

Permit: 0271-AOP-R7

AFIN: 21-00036

scrubber induced draft fan amperage. The minimum fan amperage for proper gas flow is 46 amps. Measurements under either alternative shall include at least 1 reading every 15 minutes and be averaged using a three-hour block average. [§19.304 and 40 CFR §63.864(e)(10)]

- 116. The permittee shall perform initial stack testing of the Recovery Furnace, Smelt Dissolving Tank, and Lime Kiln for PM using EPA Reference Method 5 or 29. Testing shall be performed in accordance with Plantwide Condition 3. Initial performance testing for the Recovery Furnace, Smelt Dissolving Tank, and Lime Kiln was completed on September 9, 2004, May 26, 2004, and May 25, 2004 respectively and determined to be acceptable by ADEQ. [§19.304 and 40 CFR §63.865(b)(1), and §63.7]
- 117. The permittee shall develop and maintain a startup, shutdown, and malfunction plan (SSMP) containing procedures to be followed for operating and maintaining the sources during those periods. The plan shall include a program of corrective action for malfunctioning process and control systems used to comply with emission standards. [§19.304 and 40 CFR §63.866(a)]
- 118. The permittee shall maintain the following records at SN-01, SN-02, and SN-03:
 - a. Black liquor solids firing rate for the Recovery Furnace;
 - b. CaO production rates for the Lime Kiln;
 - c. Parameter monitoring data required under §63.864;
 - d. Documentation of supporting calculations for compliance demonstrations made under §63.865(a) through (e), and;
 - e. Monitoring parameter ranges established for each affected source.

[§19.304 and 40 CFR §63.866(c)(1) through (5)]

119. The permittee shall submit excess emissions reports in accordance with §63.867(c). [§19.304 and §63.867(c)]

Permit: 0271-AOP-R7

AFIN: 21-00036

SN-12 Lime Bin Loading

Source Description

Fresh lime is received by truck and pneumatically conveyed to the Lime Bin. The lime is transferred to processing through an enclosed conveyor system. The only potential particulate emissions are due to the truck unloading and are controlled with a fabric filter installed on the bin vent.

Specific Conditions

120. The permittee shall not exceed the emission limits set forth in the following table for source SN-12. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment. Compliance shall be demonstrated by proper operation of control equipment. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	0.6	2.5

121. The permittee shall not exceed the emission limits set forth in the following table for source SN-12. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment. Compliance shall be demonstrated by proper operation of control equipment. [§18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	0.6	2.5

- 122. The permittee shall not exceed 5% opacity from source SN-12 as measured by EPA Reference Method 9. [§19.503 and 40 CFR Part 52, Subpart E]
- 123. Weekly observations of the opacity from source SN-12 shall be conducted by personnel familiar with the permittee's visible emissions. The permittee shall accept such observations for demonstration of compliance. The permittee shall maintain personnel trained in EPA Reference Method 9. If visible emissions which appear to be in excess of the permitted opacity are detected, the permittee shall immediately take action to identify the cause of the visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request.

Permit: 0271-AOP-R7

AFIN: 21-00036

[§19.705 and 40 CFR Part 52, Subpart E]

- a. The date and time of the observation;
- b. If visible emissions which appeared to be above the permitted limit were detected;
- c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken;
- d. The name of the person conducting the opacity observations.

Permit: 0271-AOP-R7 AFIN: 21-00036

Paper Operations

SN-11 Board Machine Vents

Source Description

Source SN-11 is the mill's board machine vents. The mill operates one Board Machine and one extrusion line. The Board Machine is made up of wet end and dry end operations, calender and coating operations, a broke system, and extrusion operations. Emissions from the Board Machine occur primarily from the Fourdrinier vacuum pump exhausts, press section vents, dryer exhaust, and the coating section. This equipment was installed in 1977. Emission limits for this source are based on published emission factors at the time of permit issuance. The development of new or different emissions data which affects the estimated emission limits from this source will not be considered a violation of the pollutant emission limits established in this permit.

In the stock preparation area, the diluted pulp slurry is fed to the low density chests, then through the refiners, a blend chest, a machine chest, and then distributed onto the Fourdrinier Wire of the board machine. Additive feed systems include equipment that store, prepare, and distribute additives throughout the board machine. The operation of the feed additive system varies depending on the grade of paper produced. Some additives such as dyes and biocides are used in small quantities and are stored in totes and drums equipped with metering pumps to transfer the contents directly to the process. Additives, such as starch, used in slightly larger quantities have their own storage tanks and distribution systems.

The diluted pulp slurry is distributed onto the Fourdrinier wire allowing the water to drain into the white water chest. In the Vacuum Pump System, the sheet passes over a series of suction boxes which draw water and moisture laden air from the sheet by a vacuum created by vacuum pumps. The sheet is then pressed through the felts to remove moisture. The sheet is then sent through the dryers.

The Board Machine has four main dryer sections. This includes all the dryers and air exhaust systems that drive off the sheet's remaining moisture. Heat for the drying is provided by steam. The dryers are enclosed with hoods. The hoods are vented by large fans which discharge the hot, moisture laden air through roof vents.

Following the main dryer section, starch is first cooked in a cooker heated by steam and then applied to the paper. The sheet then passes through the fifth section dryers. Following the fifth section dryers are calender stacks, which are a group of stacked rollers through which the paper sheet passes. The sheet then passes through the calender dryers before entering the coatings section where coatings are applied. The coating area stores, mixes, and supplies various chemicals to the board machine. Some high usage chemicals such as latex, calcium carbonate, or clay are delivered in rail cars and are unloaded to the storage tanks. Ammonia is added for pH control. Coatings are dried by coater dryers and small gas-fired infrared dryers. The paper then passes through a second calender stack for finishing and gloss control. Finally, the paper is

Permit: 0271-AOP-R7

AFIN: 21-00036

shipped off-site to finishing and converting facilities or to the extrusion line for polyethylene coating application.

The broke system encompasses the pulpers, chests, and equipment that collect trimmings from the sheet during the papermaking processes. Broke is pumped back to the stock preparation for reuse in the papermaking process.

The extrusion line includes two extruders which apply a polyethylene coating to the board. The extrusion plant receives board from the mill's board machine. Rolls of board are loaded onto an unwind stand. The extruded polyethylene is then laminated onto the board. The product is then passed through a treater which enhances the surface quality of the product. The extrusion line also includes rewinding facilities which are used to cut the extruded product to ordered size.

Specific Conditions

124. The permittee shall not exceed the emission limits set forth in the following table for source SN-11. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Plantwide Condition 8. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	12.8	40.3

125. The permittee shall not exceed the emission limits set forth in the following table for source SN-11. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Plantwide Condition 8. [§18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
NH ₃	3.4	10.5
Acetaldehyde	3.20	10.00
Acrolein	0.12	0.38
Formaldehyde	0.63	2.00
Methanol	2.80	8.60
MEK	0.20	0.63
1, 2, 4 – Trichlorobenzene	0.14	0.42
Tetrachloroethylene	0.22	0.69

Permit: 0271-AOP-R7

AFIN: 21-00036

Wastewater Treatment Operations

The Cypress Bend Mill treats an average of 14 to 15 million gallons of wastewater (maximum of 20 million gallons) per day in their wastewater treatment plant (WWTP). Wastewater treatment nutrients are added at the Process Lift Station and the Primary Waste Clarifier to enhance biological activity. Fiber and other heavy particles settle in the clarifier. Underflow, known as primary sludge, is sent to a sludge blending tank and then to the Sludge Press Filter. The sludge is separated from the flow and disposed of in the landfill. The overflow from the Primary Waste Clarifier is combined with the acid sewer stream. This combined flow is sent to the Emergency Clarifier where flocculent is settled from the flow. The effluent then travels through an Inorganic Basin and enters the Aeration Stabilization Basin (ASB). The effluent from the ASB is sent to a holding Final Retention Basin. The treated effluent is ultimately discharged into the Mississippi River.

The following six sources comprise the WWTP at the Cypress Bend Mill.

Primary Clarifier
Sludge Press Filter
Emergency Clarifier
Inorganic Solids Basin
Aeration Stabilization Basin
Final Retention Basin

Primary Clarifier

The Primary Clarifier is the first step in the wastewater treatment process at the mill. Organic material present in the wastewater is treated, and fiber and solid particles present in the wastewater are allowed to settle. Because of the small surface area of this unit compared to the ASB, the amount of fugitive VOC emissions expected from the Primary Clarifier is expected to be low.

Sludge Press Filter

The Sludge Press Filter extracts wastewater from the sludge generated in the wastewater treatment operations. The filtered sludge is landfilled while the extracted wastewater is returned to the WWTP for further processing. A low amount of fugitive VOC emissions is expected from the Sludge Press Filter.

Emergency Clarifier and Inorganic Solids Basin

The Emergency Clarifier and Inorganic Solids Basin provide additional residence time for solids present in the wastewater to settle before being discharged into the ASB.

Permit: 0271-AOP-R7

AFIN: 21-00036

Final Retention Basin

The Final Retention Basin provides additional stabilization time for treated effluent prior to discharge into the Mississippi River. Because of both the passive nature of this process and the fact that most of the VOCs were previously emitted in the Aeration Stabilization Basin, fugitive VOC emissions from the Final Retention Basin are expected to be low.

Permit: 0271-AOP-R7

AFIN: 21-00036

SN-08 Waste Water Treatment System

Source Description

Source SN-08 is the mill's Waste Water Treatment System (WWTS). It consists of a Primary Clarifier, Zipse's Pond, an Emergency Clarifier, an Inorganic Basin, an Aeration Stabilization Basin (ASB) and a Final Retention Basin (FRB). Potential emissions are estimated using EPA's Water 9 model and NCASI's SARA 313 Form R Reporting Guidance. Sources are bubbled as one area source for the permitting purposes.

Specific Conditions

126. The permittee shall not exceed the emission limits set forth in the following table for source SN-08. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Plantwide Condition 8. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	184.6	808.2

127. The permittee shall not exceed the emission limits set forth in the following table for source SN-08. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Plantwide Condition 8. [§18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
Chloroform	4.20	18.40
Methanol	180.31	789.78

- 128. Reserved.
- 129. Reserved.
- 130. Source SN-08 is subject to the applicable provisions of 40 CFR Part 63, Subpart A General Provisions and 40 CFR Part 63, Subpart S National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. A copy of Subpart S has been included in Appendix F of this permit. The applicable provisions of this subpart include, but are not necessarily limited to, the items found in Specific Conditions 131 to 137. In the event there is a published change in emissions estimates or water modeling procedures, the Facility will not be considered out of compliance with the mass emissions as listed in Specific Conditions 126 and 127.

Permit: 0271-AOP-R7

- 131. The requirements of this section apply to owners and operators of Kraft processes subject to the requirements NESHAP Subpart S. The pulping process condensates from the following equipment systems shall be treated to meet the requirements specified in §63.446(c), (d), and (e) (Specific Conditions 132, 133, and 134, respectively): [§19.304 and 40 CFR §63.446(a) and (b)]
 - a. Each digester system;
 - b. Each turpentine recovery system;
 - c. Each evaporator stage where weak liquor is introduced (feed stages) in the evaporator system;
 - d. HVLC collection system; and
 - e. LVHC collection system.
- One of the following combinations of HAP-containing pulping process condensates generated, produced, or associated with the equipment systems listed in §63.446(b) (Specific Condition 131) shall be collected according to the requirements of §63.446. [§19.304 and 40 CFR §63.446(c)]
 - a. All pulping process condensates from the equipment systems specified in paragraphs §63.446(b)(1) through §63.446(b)(5) (Specific Condition 131a-e).
 - b. The combined pulping process condensates from the equipment systems specified in paragraphs §63.446(b)(4) and §63.446(b)(5) (Specific Condition 131d-e), plus pulping process condensate stream(s) that in total contain at least 65 percent of the total HAP mass from the pulping process condensates from equipment systems listed in paragraphs §63.446(b)(1) through §63.446(b)(3) (Specific Condition 131a-c).
 - c. The pulping process condensates from equipment systems listed in paragraphs §63.446(b)(1) through §63.446(b)(5) (Specific Condition 131a-e) that in total contain a total HAP mass of 5.5 kilograms or more of total HAP per megagram (11.1 pounds per ton) of ODP for mills that perform bleaching.
- 133. The pulping process condensates from the equipment systems listed in §63.446(b) (Specific Condition 131) shall be conveyed in a closed collection system that is designed and operated to meet the requirements specified in §63.446(d)(1) and (d)(2). [§19.304 and 40 CFR §63.446(d)]
 - a. Each enclosed collection system shall meet the individual drain system requirements specified in §§63.960, 63.961, and 63.962 of NESHAP Subpart RR, except for closed-vent systems and control devices shall be designed and operated in accordance with §§63.443(d) and 63.450, instead of in accordance with §63.693 as specified in §63.962(a)(3)(ii), (b)(3)(ii)(A), and (b)(3)(ii)(B)(5)(iii); and
 - b. If a condensate tank is used in the closed collection system, the tank shall meet the following requirements:

Permit: 0271-AOP-R7

- i. The fixed roof and all openings (e.g., access hatches, sampling ports, gauge wells) shall be designed and operated with no detectable leaks as indicated by an instrument reading of less than 500 ppm above background, and vented into a closed-vent system that meets the requirements in §63.450 and routed to a control device that meets the requirements in §63.443(d); and
- ii. Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that the tank contains pulping process condensates or any HAP removed from a pulping process condensate stream except when it is necessary to use the opening for sampling, removal, or for equipment inspection, maintenance, or repair.
- 134. Each pulping process condensate from the equipment systems specified in §63.446 (b) (Specific Condition 131) shall be treated according to one of the following options: [§19.304 and 40 CFR §63.446(e)]
 - a. Recycle the pulping process condensate to an equipment system specified in §63.443(a) meeting the requirements specified in §63.443(c) and (d); or
 - b. Discharge the pulping process condensate below the liquid surface of a biological treatment system and treat the pulping process condensates to meet the requirements specified in paragraph (e)(3), (4), or (5) of this section, and total HAP shall be measured as specified in §63.457(g); or
 - c. Treat the pulping process condensates to reduce or destroy the total HAPs by at least 92 percent or more by weight; or
 - d. At mills that do not perform bleaching, treat the pulping process condensates to remove 3.3 kilograms or more of total HAP per megagram (6.6 pounds per ton) of ODP, or achieve a total HAP concentration of 210 parts per million or less by weight at the outlet of the control device; or
 - e. At mills that perform bleaching, treat the pulping process condensates to remove 5.1 kilograms or more of total HAP per megagram (10.2 pounds per ton) of ODP, or achieve a total HAP concentration of 330 ppm or less by weight at the outlet of the control device.
- 135. Each HAP removed from a pulping process condensate stream during treatment and handling under §63.446(d) or (e) (Specific Conditions 133 and 134, respectively), except for those treated according to §63.446(e)(2), shall be controlled as specified in §63.443 (c) and (d). [§19.304 and 40 CFR §63.446(f)]
- 136. Each owner or operator using a biological treatment system to comply with 40 CFR §63.446(e)(2) shall perform the daily monitoring procedures specified in either paragraph a or b below and shall conduct a performance test each quarter using the procedures specified in paragraph c. [§19.304 and 40 CFR §63.453(j)]
 - a. Comply with the following monitoring and sampling requirements specified in §63.453(j)(1)(i) and (ii).

Permit: 0271-AOP-R7

- i. On a daily basis, monitor the following parameters for each biological treatment unit:
 - 1. Composite daily sample of outlet soluble BOD5 concentration to monitor for maximum daily and maximum monthly average;
 - 2. Mixed liquor volatile suspended solids;
 - 3. Horsepower of aerator unit(s);
 - 4. Inlet liquid flow; and
 - 5. Liquid temperature.
- ii. If the Inlet and Outlet Concentration Measurement Procedure (Procedure 3) in Appendix C of 40 CFR Part 63 is used to determine the fraction of HAP compounds degraded in the biological treatment system as specified in §63.457(1), conduct the following sampling and archival requirements specified in §63.453(j)(1)(ii)(A) and (B).
 - 1. Obtain daily inlet and outlet liquid grab samples from each biological treatment unit to have HAP data available to perform quarterly percent reduction tests specified in §63.453(j)(3) and the compliance tests specified in paragraph (p) of this section.
 - 2. Store the samples as specified in §63.457(n) until after the results of the soluble BOD5 test required in paragraph §63.453(j)(1)(i)(A) are obtained. The storage requirement is needed since the soluble BOD5 test requires five days or more to obtain results. If the results of the soluble BOD5 test are outside of the range established during the initial performance test, then the archive sample shall be used to perform the mass removal or percent reduction determinations.
- b. As an alternative to option 1 [§63.457(j)(1)], conduct daily monitoring of the site-specific parameters established according to the procedures set forth in paragraph (n) of §63.457.
- c. Conduct a performance test as specified in §63.457(1) within 45 days after the beginning of each quarter and meet the applicable limit in §63.446(e)(2).
 - i. The performance test conducted in the first quarter (annually) shall be performed for total HAP as specified in §63.457(g) and meet the percent reduction or mass removal emission limit specified in §63.446(e)(2).
 - ii. The remaining quarterly performance tests shall be performed as specified in paragraph (3)(i) of this section except owners or operators may use the applicable methanol procedure in §63.457(1)(1) or (2) and the value of r determined during the first quarter test instead of measuring the additional HAP to determine a new value of r.
- 137. Each owner or operator of a biological treatment system complying with §63.453(j) (Specific Condition 136) shall perform all the following requirements when the monitoring parameters specified in §63.453(j)(1)(i)(A) through (C) or any of the monitoring parameters specified in paragraph (j)(2) of this section are below minimum operating parameter values or above maximum operating parameter values established in paragraph (n) of this section. [§19.304 and 40 CFR §63.453(p)]

Permit: 0271-AOP-R7

- a. The following shall occur and be recorded as soon as practical:
 - i. Before the steps in §63.453(p)(1)(ii) or (iii) are performed, all sampling and measurements necessary to meet the requirements in paragraph (p)(2) of this section shall be conducted;
 - ii. Steps shall be taken to repair or adjust the operation of the process to end the parameter excursion period; and
 - iii. Steps shall be taken to minimize total HAP emissions to the atmosphere during the parameter excursion period.
- b. A parameter excursion is not a violation of the applicable emission standard if the percent reduction test specified in §63.453(p)(1)(i) demonstrates compliance with §63.446(e)(2), and no maintenance or changes have been made to the process or control device after the beginning of a parameter excursion that would influence the results of the determination.

Permit: 0271-AOP-R7

AFIN: 21-00036

Tanks, Landfill, and Miscellaneous Operations

SN-21 and SN-22 Weak Black Liquor Tanks

Source Description

Sources SN-21 and SN-22 are the weak black liquor storage tanks for the mill. These are fixed roof above ground storage tanks. Spent cooking liquor and the pulp wash water are combined to form a weak black liquor which is stored in these tanks. The weak black liquor is stored prior to further processing the evaporator train at the mill. These tanks were installed in 1977 and are therefore not subject to regulation under the New Source Performance Standards (NSPS) Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.

Specific Conditions

138. The permittee shall not exceed the emission limits set forth in the following table for sources SN-21 and SN-22 combined. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Plantwide Condition 8. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	17.8	9.6

139. The permittee shall not exceed the emission limits set forth in the following table for sources SN-21 and SN-22 combined. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Plantwide Condition 8. [§18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
Methanol	17.80	9.60

Permit: 0271-AOP-R7

AFIN: 21-00036

SN-24 Methanol Tank

Source Description

Source SN-24 is the mill's methanol tank. The methanol tank is an above ground, vertical, fixed roof storage tank with a capacity of approximately 36,100 gallons. This tank was installed in 1989 and is therefore subject to regulation under the New Source Performance Standards (NSPS) Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.

Specific Conditions

140. The permittee shall not exceed the emission limits set forth in the following table for sources SN-24. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Specific Condition 142. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	44.6	0.5

141. The permittee shall not exceed the emission limits set forth in the following table for source SN-24. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Specific Condition 142. [§18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
Methanol	44.60	0.50

- 142. Throughput at SN-24 shall not exceed 500,000 gallons of methanol during any consecutive twelve month period. [§19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]
- 143. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition 142. These may be used by the Department for enforcement purposes. Compliance shall be determined by a twelve-month rolling total of the monthly records of methanol throughput. Each month's total along with the current rolling total shall be available for inspection by the last day of the month following the month to which the records pertain. These records shall be maintained on site and shall be provided to Department personnel upon request. These records shall be submitted in accordance with General Provision 7. [§19.705 and 40 CFR Part 52, Subpart E]

Permit: 0271-AOP-R7

AFIN: 21-00036

144. The permittee shall maintain readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. These records shall be maintained for the life of the storage vessel. [§19.304 and 40 CFR Part 60.116b(b)]

145. The permittee shall maintain a record of the volatile organic liquid (VOL) stored in the storage vessel, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. These records shall be maintained for a period of two years following the date of the records. [§19.304 and 40 CFR Part 60.116b(c)]

Permit: 0271-AOP-R7 AFIN: 21-00036

SN-25 Green Liquor Storage Tank

Source Description

Source SN-25 is the Green Liquor Storage Tank at the mill. This is an above ground, vertical, fixed roof storage tank with a capacity of 1.2 million gallons. The smelt from the smelt dissolving tank is dissolved in water to form green liquor. The green liquor is stabilized in the Green Liquor Stabilization Tank and then clarified in the Green Liquor Clarifier. Once the green liquor is fully processed, it is stored in the Green Liquor Storage Tank to await further processing.

Specific Conditions

146. The permittee shall not exceed the emission limits set forth in the following table for sources SN-25. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Specific Conditions 68 and 107 and by Plantwide Condition 8. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	0.1	0.3

147. The permittee shall not exceed the emission limits set forth in the following table. The permittee shall demonstrate compliance with this condition by Conditions 68 and 107 and by Plantwide Condition 8. [§18.801, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
Methanol	0.10	0.30

Permit: 0271-AOP-R7 AFIN: 21-00036

SN-26 White Liquor Storage Tank

Source Description

Source SN-26 is the white liquor storage tank at the mill. This is an above ground, vertical, fixed roof storage tank with a capacity of 360,000 gallons. Lime is added to green liquor in the Slakers to begin the causticizing process. In this process, quicklime (CaO) is used to regenerate white liquor (Na₂S) from green liquor (Na₂CO₃). After the white liquor is fully processed, it is sent to the White Liquor Storage Tank to be stored until needed in the Digesters for cooking of the pulping material.

Specific Conditions

148. The permittee shall not exceed the emission limits set forth in the following table for sources SN-26. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Specific Conditions 68 and 107 and by Plantwide Condition 8. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	0.2	0.6

149. The permittee shall not exceed the emission limits set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions 68 and 107 and by Plantwide Condition 8. [§18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
Methanol	0.20	0.60

Permit: 0271-AOP-R7 AFIN: 21-00036

SN-05 NCG Thermal Oxidizer

Source Description

Source SN-05 is the Non-Condensable Gas (NCG) Thermal Oxidizer at the mill. Non-condensable gases from several pulp mill sources are collected and routed to the NCG Thermal Oxidizer for incineration. The Evaporator vents, Turpentine system, Digester vents, and Blow Tank condensers are all part of the NCG system at the Cypress Bend Mill. The Lime Kiln is used as the backup unit for the incineration of the NCGs.

The current NCG Thermal Oxidizer was installed after September 24, 1976, and is therefore subject to 40 CFR Part 60 Subpart BB for retention time and temperature. In order to comply with 40 CFR Part 63, Subpart S, Potlatch installed a new NCG Thermal Oxidizer in 2000. The thermal oxidizer incinerates gases from the LVHC system.

Specific Conditions

150. The permittee shall not exceed the emission limits set forth in the following table for source SN-05. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Specific Condition 154 and 155 and Plantwide Condition 8. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM_{10}	3.2	14.0
SO_2	9.0	39.0
VOC	9.0	39.0
СО	22.6	99.0
NO _x	8.7	38.0
TRS	0.4	1.7

151. The permittee shall not exceed the emission limits set forth in the following table for source SN-05. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Specific Condition 154 and Plantwide Condition 8. [§18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Permit: 0271-AOP-R7

AFIN: 21-00036

Pollutant	lb/hr	tpy
Acetone	0.01	0.03
Methanol	0.23	0.98
Acetaldehyde	0.01	0.03
Formaldehyde	0.26	1.14
MEK	0.01	0.02
1, 2, 4 - Trichlorobenzene	0.04	0.17

- 152. The permittee shall not exceed 20% opacity from source SN-05 as measured by EPA Reference Method 9. [§18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 153. Weekly observations of the opacity from source SN-05 shall be conducted by personnel familiar with the permittee's visible emissions. The permittee shall accept such observations for demonstration of compliance. The permittee shall maintain personnel trained in EPA Reference Method 9. If visible emissions which appear to be in excess of the permitted opacity are detected, the permittee shall immediately take action to identify the cause of the visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated daily, kept on site, and made available to Department personnel upon request. [§18.1004 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
 - a. The date and time of the observation;
 - b. If visible emissions which appeared to be above the permitted limit were detected;
 - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken;
 - d. The name of the person conducting the opacity observations.
- 154. The permittee shall only fire natural gas and non-condensable gases in the NCG Thermal Oxidizer. [§19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]
- 155. The permittee shall continue to conduct compliance testing for the SO₂ emissions from the NCG Thermal Oxidizer scrubber (SN-05) using EPA Reference Method 6C or an ADEQ approved methodology. Testing shall be conducted every five years on or before October 1 of applicable years. The permittee shall conduct the compliance testing and

Permit: 0271-AOP-R7

AFIN: 21-00036

subsequent reporting in accordance with Plantwide Condition 3. [§19.702 and 40 CFR Part 52, Subpart E]

- 156. Source SN-05 is subject to the applicable provisions of 40 CFR Part 60, Subpart A General Provisions and 40 CFR Part 60, Subpart BB Standards of Performance for Kraft Pulp Mills because it controls emissions from sources which are subject to this subpart. A copy of Subpart BB may be found in Appendix A of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions 157 and 158.
- 157. The permittee shall maintain the NCG thermal oxidizer so that a minimum combustion temperature of 1200°F and a minimum retention time of 0.5 seconds is maintained. Compliance with the minimum temperature requirement shall be demonstrated through compliance with Specific Condition 158, and compliance with the minimum retention time is demonstrated through the design and proper operation of the equipment. This condition is superseded by 40 CFR §63.443(d)(3). Compliance with this condition is demonstrated by Specific Condition 162 and 163. [§19.705, §19.304, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, 40 CFR Part 70.6, and 40 CFR §60.282]
- 158. The permittee shall continue to calibrate and maintain a monitoring device which measures and records the combustion temperature at the point of incineration of the effluent gases which are emitted from the NCG thermal oxidizer. The monitor is to be certified by the manufacturer to be accurate within +/- 1% of the temperature being measured. [§19.705, §19.304, 40 CFR Part 52, Subpart E, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §60.284]
- 159. The permittee shall not route the non-condensable gases from the NCG system to the NCG Thermal Oxidizer and the Lime Kiln simultaneously. [§19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]
- 160. Reserved.
- 161. The NCG Thermal Oxidizer is subject to the applicable provisions of 40 CFR Part 63, Subpart A General Provisions and 40 CFR Part 63, Subpart S National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry because it will incinerate emissions from the LVHC and the HVLC systems. A copy of Subpart S may be found in Appendix F of this permit. The applicable provisions of this subpart include, but are not necessarily limited to, the items found in Specific Conditions 162 and 163.
- 162. The thermal oxidizer shall reduce HAP emissions by one of the following three options (except as otherwise allowed by 40 CFR Part 63 Subpart S): (1) reduce total HAP emissions by 98 percent or more by weight; or (2) reduce the total HAP concentration at the outlet to 20 parts per million or less by volume, corrected to 10 percent oxygen on a dry basis; or (3) be designed and operated at a minimum temperature of 1,600 °F and a

Permit: 0271-AOP-R7

AFIN: 21-00036

minimum residence time of 0.75 seconds. [§19.304 and 40 CFR §63.443(d)]

163. A continuous monitoring system (CMS) shall be operated in the firebox or in the ductwork immediately downstream of the firebox and before any substantial heat exchange occurs for each thermal oxidizer used to comply with the requirements of §63.443(d)(1) through (d)(3). Owners and operators complying with the HAP concentration requirements in §63.443(d)(2) may install a CMS to monitor the thermal oxidizer outlet total HAP or methanol concentration, as an alternative to monitoring thermal oxidizer operating temperature. [§19.304 and 40 CFR §63.453(b)]

CAM Requirements

- The permittee shall not operate the NCG Thermal Oxidizer Scrubber (SN-05) with a scrubber liquor flow less than 400 gallons per minute and at a pH lower than 9.0. Scrubber flow and pH compliance will be based on 3-hour block averages. [§19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6 and 40 CFR Part 64]
- 165. The permittee shall install and operate a scrubber recirculation flow monitor and pH monitor at SN-05 to verify recirculation flow and pH. The permittee shall keep daily records in a log kept of the two monitor's readings. Records shall be kept on-site, made available to Department personnel upon request, and submitted in accordance with General Provision 7. [§19.705, 40 CFR Part 52, and 40 CFR Part 64]

Permit: 0271-AOP-R7

AFIN: 21-00036

SN-16F and SN-27F Pulp Storage Chests and Hardwood High Density Tower

Source Description

Sources SN-16F and SN-27F are the mill's pulp storage chests. There are six large pulp storage chests located at the Cypress Bend Mill. Additionally, there are several smaller pulp storage chests located throughout the facility to provide equalization between processes. The six large storage chests are over an order of magnitude larger than the smaller chests, therefore only emissions from the larger chests have been quantified. This equipment was last modified in 1996. Emission limits for this source are based on published emission factors at the time of permit issuance. The development of new or different emissions data which affects the estimated emission limits from this source will not be considered a violation of the pollutant emission limits established in this permit.

Specific Conditions

166. The permittee shall not exceed the emission limits set forth in the following table for sources SN-16F and SN-27F. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Plantwide Condition 8. [§19.501 and 40 CFR Part 52, Subpart E]

Source	Pollutant	lb/hr	tpy
16F	VOC	5.2	22.6
27F	VOC	1.1	4.5

Permit: 0271-AOP-R7

AFIN: 21-00036

SN-17F Landfill Operations

Source Description

Source SN-17F is the mill's Landfill Operations. Landfill Operations include the disposal of wastewater sludge, slaker grits, dregs, and lime. As organic waste decomposes in the landfill, carbon dioxide and a variety of VOCs, mainly methane, are released to the atmosphere.

Specific Conditions

167. The permittee shall not exceed the emission limits set forth in the following table for source SN-17F. The pound per hour and the ton per year pollutant emission limits are effectively limited by Specific Condition 169. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	5.5	23.9
PM_{10}	0.2	0.1

168. The permittee shall not exceed the emission limits set forth in the following table for source SN-17F. The pound per hour and the ton per year pollutant emission limits are effectively limited by Specific Condition 169. [§18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	0.3	0.1

- 169. The landfill shall not accept in excess of 150,000 cubic yards of waste per twelve consecutive months. [§19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]
- 170. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition 169. These may be used by the Department for enforcement purposes. The records required for solid waste purposes will suffice for this recordkeeping requirement. These records shall be maintained on site and shall be provided to Department personnel upon request. These records shall be submitted in accordance with General Provision 7. [§19.705 and 40 CFR Part 52, Subpart E]

Permit: 0271-AOP-R7

AFIN: 21-00036

SN-28 Multi-use Tank

Source Description

SN-28 is a multi-use tank. The tank is used to store weak black liquor, or similar process streams having a vapor pressure less than black liquor (including green liquor). This is a fixed roof above ground storage tank with a capacity of 360,000 gallons. This tank is not subject to regulation under the New Source Performance Standards (NSPS) Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification commenced after July 23, 1984. The tank has not been modified since before the effective date.

Specific Conditions

171. The permittee shall not exceed the emission limits set forth in the following table for SN-28. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Plantwide Condition 8. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	17.8	9.6

172. The permittee shall not exceed the emission limits set forth in the following table for SN-28. The pound per hour and ton per year pollutant emission limits are based on the maximum capacity of the equipment and are effectively limited by Plantwide Condition 8. [§18.801 and A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
Methanol	17.80	9.60

Permit: 0271-AOP-R7

AFIN: 21-00036

SN-29 NCG Collection System

Source Description

The permittee requests that source number SN-29 be given to the NCG Collection System. Emissions from this system are typically reduced by (and permitted through) the NCG Thermal Oxidizer (SN-05) with the Lime Kiln (SN-01) as backup. However, Specific Condition 40 allows for periods of excess emissions as provided for under NESHAP §63.455. Under some conditions, NCG Collection System gases are not controlled by either the Thermal Oxidizer or the Lime Kiln and are emitted directly from the NCG Collection System. Thus, Potlatch wishes to assign a source number to the NCG Collection System so such periods of excess emissions can be accurately associated with the NCG Collection System.

Permit: 0271-AOP-R7 AFIN: 21-00036

SN-30a through SN-30f Temporary Package Boilers

Source Description

Up to six temporary package boilers may be brought on-site with individual heat capacities up to 100 MM Btu/ hr. The new sources will be designated as SN-30a through f. These units are subject to NSPS Subpart Dc - *Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units*.

Specific Conditions

173. The permittee shall not exceed the emission limits set forth in the following table for SN-30 a, b, c, d, e, and f combined. The pound per hour pollutant emission limits are based on the maximum combined capacity of the equipment. Ton per year compliance is demonstrated by Specific Condition 175. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/MMBtu	tpy
PM ₁₀	0.00745	2.0
SO_2	0.00059	0.2
VOC	0.00540	1.5
CO	0.14706	39.0
NO_x	0.14706	39.0

174. The permittee shall not exceed the emission limits set forth in the following table for SN-30 a, b, c, d, e, and f combined. The pound per hour pollutant emission limit is based on the maximum combined capacity of the equipment. Ton per year compliance is demonstrated by Specific Condition 175. [§18.801 and A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/MMBtu	tpy
PM	0.00745	2.0

- 175. The permittee shall not consume more than 520 million SCF of pipeline natural gas per twelve consecutive months at sources SN-30 a, b, c, d, e, and f combined. Pipeline natural gas is the only fuel permitted. [§19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]
- 176. The permittee shall maintain monthly records which demonstrate compliance with the limit set in Specific Condition 175. Records shall be updated by the fifteenth day of the month following the month to which the records pertain. These records shall be maintained on site and shall be provided to Department personnel upon request. These

Permit: 0271-AOP-R7

AFIN: 21-00036

records shall be submitted in accordance with General Provision 7. [§19.705 and 40 CFR Part 52, Subpart E]

- 177. For any units brought on-site that are constructed or modified after June 9, 1989, the permittee shall comply with all applicable provisions of 40 CFR Part 60, Subpart A General Provisions and Subpart Dc *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*. Applicable provisions of Subpart Dc include, but are not limited to, the following: [§19.304 and 40 CFR 60, Subpart Dc]
 - a. The owner or operator shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup. This notification shall include the design heat input capacity of the boiler and identification of fuels (natural gas only) to be combusted in the affected facility. [§60.48(c)(a)]
 - b. Records of the amounts of fuel combusted each day must be kept for each one of SN-30 a, b, c, d, e, and f. These records shall be kept on site for two years following the date of such records. [§60.48(c)(g) and (i)]

Permit: 0271-AOP-R7

AFIN: 21-00036

SN-31 and SN-32 Auxiliary Liquor Tanks and Intermediate Liquor Tank

Source Description

SN-31, Auxiliary Liquor Tank, was installed in 1994. It serves the same function as SN-21 and SN-22. The weak black liquor tanks store the solution (13-15% solids) that is generated by the pulp mill. The solution contains lignin and pulping chemicals and is stored in the weak black liquor tanks for feed to the evaporators. The Auxiliary Liquor Tank provides for additional storage capacity of the weak black liquor.

SN-32, Intermediate Liquor Tank, was installed in 1976. It is a storage tank that accepts and stores the liquor after it has been processed in the evaporators and finisher. The intermediate storage tank serves as the feed supply to the concentrator. Intermediate liquor solids typically are in the 53% range.

These tanks are considered "process tanks" by §40 CFR 60.111b and are not considered "storage vessels by §40 CFR 60.111b and are therefore not subject to the New Source Performance Standards (NSPS) Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.

Specific Conditions

178. The permittee shall not exceed the emission limits set forth in the following table for SN-31 and SN-32. The pound per hour pollutant emission limits are based on the maximum capacity of the equipment and the tpy are limited by Plantwide Condition 8. SN-32 tpy compliance is also contingent upon compliance with Specific Condition 68. [§19.501 and 40 CFR Part 52, Subpart E]

Source	Pollutant	lb/hr	tpy
31	VOC	0.8	1.6
32	VOC	2.4	1.0

179. The permittee shall not exceed the emission limits set forth in the following table for SN-31 and SN-32. The pound per hour pollutant emission limits are based on the maximum capacity of the equipment and the tpy are limited by Plantwide Condition 8. SN-32 tpy compliance is also contingent upon compliance with Specific Condition 68. [§18.801 and A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Pollutant	lb/hr	tpy
31	Methanol	0.8	1.6

Potlatch Forest Products Corporation - Cypress Bend Mill Permit: 0271-AOP-R7

AFIN: 21-00036

Source	Pollutant	lb/hr	tpy
32	Methanol	2.4	1.0

Permit: 0271-AOP-R7

AFIN: 21-00036

SN-33 Pet Coke Storage Silo

Pet coke is received by truck and pneumatically conveyed to and stored in the Pet Coke Storage Silo (SN-33) until it is combusted in the Lime Kiln. Particulate emissions from the Pet Coke Storage Silo are controlled with a fabric filter. The fabric filter is common process equipment and inherent to the design of this type of material handling operation. For this reason it is not subject to CAM requirements.

Specific Conditions

180. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated by proper operation of control equipment. [§19.501 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	0.3	1.2

181. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated by proper operation of control equipment. [§18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	0.3	1.2

- 182. The permittee shall not exceed an opacity of 5% from SN-33 as measured by EPA Reference Method 9. [§19.503 and 40 CFR Part 52, Subpart E]
- 183. Weekly observations of the opacity from source SN-33 shall be conducted by personnel familiar with the permittee's visible emissions. The permittee shall accept such observations for demonstration of compliance. The permittee shall maintain personnel trained in EPA Reference Method 9. If visible emissions which appear to be in excess of the permitted opacity are detected, the permittee shall immediately take action to identify the cause of the visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request. [§19.705 and 40 CFR Part 52, Subpart E]
 - a. The date and time of the observation;
 - b. If visible emissions which appeared to be above the permitted limit were detected;

Permit: 0271-AOP-R7

AFIN: 21-00036

c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken;

d. The name of the person conducting the opacity observations.

Permit: 0271-AOP-R7

AFIN: 21-00036

SECTION V: COMPLIANCE PLAN AND SCHEDULE

Potlatch Forest Products Corporation - Cypress Bend Mill will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

Permit: 0271-AOP-R7 AFIN: 21-00036

SECTION VI: PLANTWIDE CONDITIONS

- 1. The permittee shall notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Regulation 19, §19.704, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. [Regulation 19, §19.410(B) and 40 CFR Part 52, Subpart E]
- 3. The permittee must test any equipment scheduled for testing, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) new equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) operating equipment according to the time frames set forth by the Department or within 180 days of permit issuance if no date is specified. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. The permittee shall submit the compliance test results to the Department within thirty (30) days after completing the testing. [Regulation 19, §19.702 and/or Regulation 18 §18.1002 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 4. The permittee must provide: [Regulation 19, §19.702 and/or Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
 - a. Sampling ports adequate for applicable test methods;
 - b. Safe sampling platforms;
 - c. Safe access to sampling platforms; and
 - d. Utilities for sampling and testing equipment.
- 5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee shall maintain the equipment in good condition at all times. [Regulation 19, §19.303 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 6. This permit subsumes and incorporates all previously issued air permits for this facility. [Regulation 26 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 7. The permittee must prepare and implement a Startup, Shutdown, and Malfunction Plan (SSM). If the Department requests a review of the SSM, the permittee will make the SSM available for review. The permittee must keep a copy of the SSM at the source's location and retain all previous versions of the SSM plan for five years. [Regulation 19, §19.304 and 40 CFR 63.6(e)(3)] Title VI Provisions

Permit: 0271-AOP-R7

AFIN: 21-00036

8. The permittee shall process no more than 346,750 tons of finished product measured as off machine tons (OMT) during any consecutive twelve month period. [§19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]

- 9. The permittee shall maintain monthly records which demonstrate compliance with limits set in Plantwide Condition 8. These may be used by the Department for enforcement purposes. Compliance shall be determined by a twelve-month rolling total of the monthly records of off machine tons (OMT). Each month's total along with the current rolling total shall be available for inspection by the last day of the month following the month to which the records pertain. These records shall be maintained on site and shall be provided to Department personnel upon request. These records shall be submitted in accordance with General Provision 7.
- 10. The permittee shall report emission limits for all units and pollutants which require CEMs in both lb/hr and ppm, with the exception of opacity which shall be reported in percent. Both lb/hr and ppm will be used to determine compliance with permit limits. The permittee shall measure flow rates to be used in the conversion of ppm data to lb/hr data. The permittee shall measure flow rates for each source which requires a CEM on an annual basis. The flow rate measurements must be conducted within the first six months of the calendar year. The average flow rate shall be used to convert ppm data to lb/hr data until the flow rates are re-measured the following year. The number of flow measurements to be taken will be determined by the Compliance Section Manager. [§19.705, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 11. A change in the published emission factors or development of other emissions data for pollutants whose emissions were previously estimated using published emission factors shall not be considered a violation of the applicable permit limits. This condition does not apply to pollutants for which site specific test data is available, pollutants with an NSPS or NESHAP standard, or limits which have been set through a PSD permitting action (i.e., those pollutants which have undergone a BACT analysis or which netted out of PSD review). [§19.501 and 40 CFR Part 52, Subpart E, or §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Standards of Performance for Enclosures and Closed Vent Systems

- 12. Each enclosure and closed-vent system specified in §63.443(c), 63.444(b), and 63.445(b) for capturing and transporting vent streams that contain HAP shall meet the requirements specified in paragraphs §63.450 (b) through (d). [§19.304 and 40 CFR §63.450(a)]
- 13. Each enclosure shall maintain negative pressure at each enclosure or hood opening as demonstrated by the procedures specified in §63.457(e). Each enclosure or hood opening closed during the initial performance test specified in §63.457(a) shall be maintained in the same closed and sealed position as during the performance test at all times except

Permit: 0271-AOP-R7

AFIN: 21-00036

when necessary to use the opening for sampling, inspection, maintenance, or repairs. [§19.304 and 40 CFR §63.450(b)]

- 14. Each component of the closed-vent system used to comply with §§63.443(c), 63.444(b), and 63.445(b) that is operated at positive pressure and located prior to a control device shall be designed for and operated with no detectable leaks as indicated by an instrument reading of less than 500 parts per million by volume above background, as measured by the procedures specified in §63.457(d). [§19.304 and 40 CFR §63.450(c)]
- Each bypass line in the closed-vent system that could divert vent streams containing HAP to the atmosphere without meeting the emission limitations in §\$63.443, 63.444, or 63.445 shall comply with either of the following requirements: [\$19.304 and 40 CFR \$63.450(d)]
 - a. On each bypass line, the owner or operator shall install, calibrate, maintain, and operate according to manufacturer's specifications a flow indicator that provides a record of the presence of gas stream flow in the bypass line at least once every 15 minutes. The flow indicator shall be installed in such a way as to indicate flow in the bypass line; or
 - b. For bypass lines valves that are not computer controlled, the owner or operator shall maintain the bypass line valve in the closed position with a car seal or a seal placed on the valve or closure mechanism in such a way that valve or closure mechanism cannot be opened without breaking the seal.

Closed Vent Monitoring Requirements

- 16. Each enclosure and closed-vent system used to comply with §63.450(a) shall comply with the requirements specified in §63.453(k)(1) through (k)(6). [§19.304 and 40 CFR §63.453(k)]
 - a. The permittee shall perform a visual inspection of each enclosure opening at least every 30 days to ensure the opening is maintained in the same closed and sealed position as during the performance test except when necessary to use the opening for sampling, inspection, maintenance, or repairs.
 - b. The permittee shall conduct a visual inspection of each closed vent system at least every 30 days. The visual inspection shall include inspection of ductwork, piping, enclosures, and connections to covers for visible evidence of defects.
 - c. The permittee shall perform initial and subsequent annual tests to demonstrate that no detectable leaks are present in each component of the closed-vent system operated at positive pressure. This includes the LVHC system segments downstream of the ejectors and the NCG Scrubber. The tests shall be conducted using the procedure outlined in 40 CFR Part 63.457(d) and:
 - i. Method 21, of 40 CFR Part 60, Appendix A; and

Permit: 0271-AOP-R7

AFIN: 21-00036

- ii. The instrument specified in Method 21 shall be calibrated before use according to the procedures specified in Method 21 on each day that leak checks are performed. The following calibration gases shall be used:
- iii. Zero air (less than 10 parts per million by volume of hydrocarbon in air); and
- iv. A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 parts per million by volume methane or n-hexane.
- d. The permittee shall perform initial and subsequent annual tests to demonstrate that each enclosure opening of the closed-vent system is maintained at negative pressure. The tests shall be conducted using one of the following procedures.
 - i. An anemometer to demonstrate flow in the enclosure opening.
 - ii. Measure the static pressure across the opening.
 - iii. Smoke tubes to demonstrate flow into the enclosure opening.
- e. The permittee shall inspect the valve and seal on the following bypass lines at least once every 30 days to ensure that the valve is maintained in the closed position and the emission point gas stream is not diverted through the bypass line.
- f. The permittee shall undertake the following corrective actions as soon as practicable if an inspection required by §63.453 (k)(1) through (k)(5) identifies any visible defects in the ductwork, piping, enclosures, or connections to covers, or if an instrument reading of 500 ppm by volume or greater above background is measured in accordance with the procedures outlined in §63.457(d), or if any enclosure openings are not maintained at negative pressure.
 - i. A first effort to repair or correct the closed-vent system shall be made as soon as practicable but no later than 5 calendar days after the problem is identified.
 - ii. The repair or corrective action shall be completed no later than 15 days after the problem is identified. Delay of repair or corrective action is allowed if the repair or corrective action is technically infeasible without a process unit shutdown or if the permittee determines that the emissions resulting from immediate repair would be greater than the emissions likely to result from the delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown.
- 17. Each owner or operator using a control device, technique, or an alternative parameter other than those specified in §63.453(b) through (l) shall install a CMS and establish appropriate operating parameters to be monitored that demonstrate, to the Administrator's satisfaction, continuous compliance with the applicable control requirements. [§19.304 and 40 CFR §63.453(m)]
- 18. To establish or reestablish the value for each operating parameter required to be monitored under §63.453(b) through (j), (l), and (m) or to establish appropriate parameters for §63.453(f), (i), (j)(2) and (m), each owner or operator shall use the following procedures: [§19.304 and 40 CFR §63.453(n)]
 - a. During the initial performance test required in §63.457(a) or any subsequent performance test, continuously record the operating parameter;

Permit: 0271-AOP-R7

AFIN: 21-00036

- b. Determinations shall be based on the control performance and parameter data monitored during the performance test, supplemented if necessary by engineering assessments and the manufacturer's recommendations;
- c. The owner or operator shall provide for the Administrator's approval the rationale for selecting the monitoring parameters necessary to comply with paragraphs (f), (i), and (m) of this section; and
- d. Provide for the Administrator's approval the rationale for the selected operating parameter value, and monitoring frequency, and averaging time. Include all data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the applicable emission standard.
- 19. Each owner or operator of a control device subject to the monitoring provisions of this section shall operate the control device in a manner consistent with the minimum or maximum (as appropriate) operating parameter value or procedure required to be monitored under §63.453(a) through (n) and established under this subpart. Except as provided in §63.453(p), §63.443(e) or §63.446(g), operation of the control device below the minimum operating parameter values or above maximum operating parameter values established under this subpart or failure to perform procedures required by this subpart shall constitute a violation of the applicable emission standard of this subpart and be reported as a period of excess emissions. [§19.304 and 40 CFR §63.453(o)]

Closed Vent Recordkeeping Requirements

- 20. The owner or operator of each affected source subject to the requirements of this subpart shall comply with the recordkeeping requirements of §63.10 of subpart A of this part, as shown in Table 1, and the requirements specified in §63.454(b) through (f) for the monitoring parameters specified in §63.453. [§19.304 and 40 CFR §63.454(a)]
- 21. For each applicable enclosure, opening, closed-vent system, and closed collection system, the owner or operator shall prepare and maintain a site-specific inspection plan including a drawing or schematic of the components of applicable affected equipment and shall record the following information for each inspection: [§19.304 and 40 CFR §63.454(b)]
 - a. Date of inspection;
 - b. The equipment type and identification;
 - c. Results of negative pressure tests for enclosures;
 - d. Results of leak detection tests;
 - e. The nature of the defect or leak and the method of detection (i.e., visual inspection or instrument detection);
 - f. The date the defect or leak was detected and the date of each attempt to repair the defect or leak;
 - g. Repair methods applied in each attempt to repair the defect or leak;
 - h. The reason for the delay if the defect or leak is not repaired within 15 days after discovery;

Permit: 0271-AOP-R7

AFIN: 21-00036

- i. The expected date of successful repair of the defect or leak if the repair is not completed within 15 days;
- j. The date of successful repair of the defect or leak;
- k. The position and duration of opening of bypass line valves and the condition of any valve seals; and
- 1. The duration of the use of bypass valves on computer controlled valves.
- 22. The owner or operator shall record the CMS parameters specified in §63.453 and meet the requirements specified in §63.454(a) for any new affected process equipment or pulping process condensate stream that becomes subject to the standards in this subpart due to a process change or modification. [§19.304 and 40 CFR §63.454(d)]
- 23. Each owner or operator of a Kraft pulping system specified in §63.440(d)(1) or a bleaching system specified in §63.440(d)(3)(ii) shall continue to update the non-binding control strategy report (submitted with the initial notification) containing, at a minimum, the information specified in §63.455(b)(1) through (b)(3) of this section in addition to the information required in §63.9(b)(2) of subpart A of this part. [§19.304 and 40 CFR §63.455(b)]
 - a. A description of the emission controls or process modifications selected for compliance with the control requirements in this standard.
 - b. A compliance schedule, including the dates by which each step toward compliance will be reached for each emission point or sets of emission points. At a minimum, the list of dates shall include:
 - i. The date by which major study(s) for determining the compliance strategy will be completed;
 - ii. The date by which contracts for emission controls or process modifications will be awarded, or the date by which orders will be issued for the purchase of major components to accomplish emission controls or process changes;
 - iii. The date by which on-site construction, installation of emission control equipment, or a process change is to be initiated;
 - iv. The date by which on-site construction, installation of emissions control equipment, or a process change is to be completed;
 - v. The date by which final compliance is to be achieved;
 - vi. For compliance with paragraph §63.440(d)(3)(ii), the tentative dates by which compliance with effluent limitation guidelines and standards intermediate pollutant load effluent reductions and as available, all the dates for the best available technology's milestones reported in the National Pollutant Discharge Elimination System authorized under section 402 of the Clean Water Act and for the best professional milestones in the Voluntary Advanced Technology Incentives Program under 40 CFR §430.24(b)(2); and
 - vii. The date by which the final compliance tests will be performed.
 - c. Until compliance is achieved, revisions or updates shall be made to the control strategy report required by §63.455(b) indicating the progress made towards

Permit: 0271-AOP-R7

AFIN: 21-00036

completing the installation of emissions controls or process modifications during the 2-year period.

Closed Vent Test Methods and Procedures

An initial performance test is required for all emission sources subject to the limitations in §\$63.443, 63.444, 63.445, 63.446, and 63.447, except those controlled by a combustion device that is designed and operated as specified in §63.443(d)(3) or (d)(4). [§19.304 and §19.702 and 40 CFR §63.457(a)]

Clean Condensate Alternative

- 25. As an alternative to the requirements specified in §63.443(a)(1)(ii) through (a)(1)(v) for the control of HAP emissions from pulping systems using the kraft process, an owner or operator must demonstrate to the satisfaction of the Administrator, by meeting all the requirements below, that the total HAP emissions reductions achieved by this clean condensate alternative technology are equal to or greater than the total HAP emission reductions that would have been achieved by compliance with §63.443(a)(1)(ii) through (a)(1)(v). [§19.304 and 40 CFR §63.447]
- 26. The permittee shall collect process condensates from the evaporator and pre-evaporator trains and hardpipe them to the Aeration Stabilization Basin of the Wastewater Treatment System (SN-08). [§19.304 and 40 CFR §63.447]
- 27. The permittee shall install and operate a clean condensate alternative technology with a continuous monitoring system to reduce total HAP emissions by treating and reducing HAP concentrations in the pulping process water used within the clean condensate alternative affected source. As an alternative to continuous monitoring systems, the permittee may demonstrate compliance by establishing site specific surrogate parameters Aeration Horsepower, soluble Chemical Oxygen Demand, and ASB temperature. Compliance shall be demonstrated by Specific Condition 136. Any alternative to the continuous monitoring system requirements at 40 CFR §63.447(b) must be submitted to EPA Region 6 for approval and copied to ADEQ. [§19.304 and 40 CFR §63.447(b)]
- 28. The permittee shall calculate HAP emissions on a kilogram per megagram of ODP basis and measure HAP emissions according to the appropriate procedures contained in §63.457. Compliance shall be demonstrated by Specific Condition 136. [§19.304 and 40 CFR §63.447(c)]
- 29. The permittee shall determine the baseline HAP emissions for each equipment system and the total of all equipment systems in the clean condensate alternative affected source based on the following:

Permit: 0271-AOP-R7

AFIN: 21-00036

- a. Process and air pollution control equipment installed and operating on December 17, 1993, and
- b. Compliance with the following requirements that affect the level of HAP emissions from the clean condensate alternative affected source:
 - i. The pulping process condensates requirements in §63.446;
 - ii. The applicable effluent limitation guidelines and standards in 40 CFR part 430, subparts A, B, D, and E; and
 - iii. All other applicable requirements of local, State, or Federal agencies or statutes.

[§19.304 and 40 CFR §63.447(d)]

- 30. The permittee shall determine the following HAP emission reductions from the baseline HAP emissions determined in Plantwide Condition 29 for each equipment system and the total of all equipment systems in the clean condensate alternative affected source:
 - a. The HAP emission reduction occurring by complying with the requirements of §63.443(a)(1)(ii) through (a)(1)(v); and
 - b. The HAP emissions reduction occurring by complying with the clean condensate alternative technology.

[§19.304 and 40 CFR §63.447(e)]

- 31. For the purposes of all requirements of 40 CFR §63.447, each owner or operator may use as an alternative, individual equipment systems (instead of total of all equipment systems) within the clean condensate alternative affected source to determine emissions and reductions to demonstrate equal or greater than the reductions that would have been achieved by compliance with §63.443(a)(1)(ii) through (a)(1)(v). [§19.304 and 40 CFR §63.447(f)]
- 32. The initial and updates to the control strategy report specified in §63.455(b) shall include to the extent possible the following information:
 - a. A detailed description of:
 - i. The equipment systems and emission points that comprise the clean condensate alternative affected source;
 - ii. The air pollution control technologies that would be used to meet the requirements of §63.443(a)(1)(ii) through (a)(1)(v); and
 - iii. The clean condensate alternative technology to be used.
 - b. Estimates and basis for the estimates of total HAP emissions and emission reductions to fulfill the requirements of Plantwide Conditions 29 through 31.

[§19.304 and 40 CFR §63.447(g)]

Permit: 0271-AOP-R7

AFIN: 21-00036

33. The permittee shall report to the Administrator by the applicable compliance date specified in §63.440(d) or (e) the rationale, calculations, test procedures, and data documentation used to demonstrate compliance with all the requirements of §63.447. [§19.304 and 40 CFR §63.447(h)]

Title VI Provisions

- 34. The permittee must comply with the standards for labeling of products using ozone-depleting substances. [40 CFR Part 82, Subpart E]
 - a. All containers containing a class I or class II substance stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced to interstate commerce pursuant to §82.106.
 - b. The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c. The form of the label bearing the required warning must comply with the requirements pursuant to §82.110.
 - d. No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 35. The permittee must comply with the standards for recycling and emissions reduction, except as provided for MVACs in Subpart B. [40 CFR Part 82, Subpart F]
 - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c. Persons performing maintenance, service repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC like appliance" is defined in §82.152.)
 - e. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to §82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 36. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.

Permit: 0271-AOP-R7

AFIN: 21-00036

37. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term AMVAC@ as used in Subpart B does not include the air tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC 22 refrigerant.

38. The permittee can switch from any ozone depleting substance to any alternative listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, "Significant New Alternatives Policy Program."

Permit Shield

- 39. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements, as of the date of permit issuance, included in and specifically identified in item A of this condition:
 - a. The following have been specifically identified as applicable requirements based upon information submitted by the permittee in an application dated August 30, 1999, and November 25, 2003.

Source No.	Regulation	Description
SN-04	40 CFR Part 60 Subpart D	Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced after August 17, 1971
SN-02	40 CFR Part 60 Subpart Db	Standards of Performance for Industrial Commercial Institutional Steam Generating Units
SN-13	40 CFR Part 60 Subpart Dc	Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units
SN-15, SN-02, SN-05	40 CFR Part 60 Subpart BB	Standards of Performance for Kraft Pulp Mills
SN-24	40 CFR Part 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984

Permit: 0271-AOP-R7

AFIN: 21-00036

Source No.	Regulation	Description
SN-05, SN-06, SN-08	40 CFR 63, Subpart S	NESHAP for the Pulp and Paper Industry (Cluster Rule)
SN-01, SN-02, SN-03	40 CFR 63, Subpart MM	NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-alone Semi-Chemical Pulp Mills
To be determined	40 CFR 63, Subpart DDDDD	NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters (Compliance date: 9/13/07)
Facility	Arkansas Regulation 19	Compilation of Regulations of the Arkansas State Implementation Plan for Air Pollution Control
Facility	Arkansas Regulation 26	Regulations of the Arkansas Operating Air Permit Program

b. The following requirements have been specifically identified as not applicable, based upon information submitted by the permittee in an application dated August 30, 1999 and November 25, 2003.

Description of Regulation	Regulatory Citation	Affected Source	Basis for Determination
Standards of Performance for Storage Vessels for Volatile Organic Liquids	40 CFR Part 60, Subparts K and Ka	Facility	The facility does not have any storage tanks with a capacity greater than 40,000 gallons that store liquids defined under NSPS Subpart K as petroleum liquids.
Standards of Performance for Storage Vessels for Volatile Organic Liquids	40 CFR Part 60, Subpart Kb	SN-21,SN- 22, SN-25, SN-26, SN-27f	These tanks storing volatile organic compounds were constructed prior to July 23, 1984.
Standards of Performance for Kraft Pulp Mills	40 CFR Part 60, Subpart BB	SN-10, SN-03, and SN-01	These units were constructed prior to September 24, 1976 and have not been modified or reconstructed since the applicability date.
Standards of Performance for Nonmetallic Mineral Processing Plants	40 CFR Part 60, Subpart OOO	Facility	There is no nonmetallic mineral processing plant at the mill (i.e., no equipment for crushing or grinding of the nonmetallic minerals (i.e., limestone) present at the mill).

Permit: 0271-AOP-R7

AFIN: 21-00036

Description of Regulation	Regulatory Citation	Affected Source	Basis for Determination
National Emission Standards for Halogenated Solvent Cleaning	40 CFR Part 63, Subpart T	Facility	The mill does not use halogenated solvents in a method subject to the requirements of this regulation.

- c. Nothing shall alter or affect the following:
 - i. Provisions of Section 303 of the Clean Air Act;
 - ii. The liability of an owner or operator for any violation of applicable requirements prior to or at the time of permit issuance;
 - iii. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; or
 - iv. The ability of the EPA to obtain information under Section 114 of the Clean Air Act.

Permit: 0271-AOP-R7

AFIN: 21-00036

SECTION VII: INSIGNIFICANT ACTIVITIES

The following sources are insignificant activities. Any activity that has a state or federal applicable requirement shall be considered a significant activity even if this activity meets the criteria of §304 of Regulation 26 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated October 8, 1997.

Source	Description	Reason
WY-01, WY-02, & WY-03	Truck and Railcar Loadouts (Pulping Material Unloading)	A-13
N/A	Pulping Material Conveyors	B-70
N/A	Knot Draining	A-13
N/A	Turpentine Tank	A-13
N/A	Fuel Oil Day Tank	A-13
N/A	Strong Liquor Tank	A-13
N/A	Soap Storage Tank	A-13
N/A	Heavy Liquor Tank	A-13
N/A	Green Liquor Stabilization Tank	A-13
N/A	Green Liquor Clarifier	A-13
N/A	Slaker	A-13
N/A	White Liquor Clarifier	A-13
N/A	Fugitive Road Emissions	B-74
N/A	Caustic Storage Tanks	A-4
N/A	Laboratory Fume Hood	A-5
N/A	Extruder Winder Cyclone	A-13
N/A	Extruder Treaters	A-13
N/A	Board Machine South Cooling Tower – East Side (195 gpm)	A-13
N/A	Board Machine Middle Cooling Tower – East Side (430 gpm)	A-13

Permit: 0271-AOP-R7

AFIN: 21-00036

Source	Description	Reason
N/A	Board Machine North Cooling Tower – East Side (176 gpm)	A-13
N/A	Board Machine North Cooling Tower – West Side (2000 gpm)	A-13
N/A	Extruder Cooling Tower (585 gpm)	A-13
N/A	Generator Cooling Tower (3,000 gpm)	A-13
N/A	Pre-Evaporator Cooling Tower (3,600 gpm)	A-13
N/A	Pulp-Mill HVAC Roof Cooling Tower (195 gpm)	A-13

^{*} Of the A-13 activities listed, the total potential emission rates of PM, PM₁₀, NO_x, CO, VOC, SO₂, and HAP are 4.48 tpy, 3.37 tpy, 2.54 tpy, 2.15 tpy, 3.58 tpy, 0.05 tpy and 1.55 tpy, respectively.

Permit: 0271-AOP-R7 AFIN: 21-00036

SECTION VIII: GENERAL PROVISIONS

- 1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 CFR 70.6(b)(2)]
- 2. This permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later. [40 CFR 70.6(a)(2) and §26.701(B) of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26), effective August 10, 2000]
- 3. The permittee must submit a complete application for permit renewal at least six (6) months before permit expiration. Permit expiration terminates the permittee's right to operate unless the permittee submitted a complete renewal application at least six (6) months before permit expiration. If the permittee submits a complete application, the existing permit will remain in effect until the Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due. [Regulation 26, §26.406]
- 4. Where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, et seq. (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, the permit incorporates both provisions into the permit, and the Director or the Administrator can enforce both provisions. [40 CFR 70.6(a)(1)(ii) and Regulation 26, §26.701(A)(2)]
- 5. The permittee must maintain the following records of monitoring information as required by this permit. [40 CFR 70.6(a)(3)(ii)(A) and Regulation 26, §26.701(C)(2)]
 - a. The date, place as defined in this permit, and time of sampling or measurements;
 - b. The date(s) analyses performed;
 - c. The company or entity performing the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of such analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.
- 6. The permittee must retain the records of all required monitoring data and support information for at least five (5) years from the date of the monitoring sample,

Permit: 0271-AOP-R7

AFIN: 21-00036

measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [40 CFR 70.6(a)(3)(ii)(B) and Regulation 26, §26.701(C)(2)(b)]

7. The permittee must submit reports of all required monitoring every six (6) months. If permit establishes no other reporting period, the reporting period shall end on the last day of the anniversary month of the initial Title V permit. The report is due within thirty (30) days of the end of the reporting period. Although the reports are due every six months, each report shall contain a full year of data. The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in Regulation No. 26, §26.2 must certify all required reports. The permittee will send the reports to the address below: [40 C.F.R. 70.6(a)(3)(iii)(A) and Regulation 26, §26.701(C)(3)(a)]

Arkansas Department of Environmental Quality Air Division ATTN: Compliance Inspector Supervisor Post Office Box 8913 Little Rock, AR 72219

- 8. The permittee shall report to the Department all deviations from permit requirements, including those attributable to upset conditions as defined in the permit. The permittee shall make an initial report to the Department by the next business day after the discovery of the occurrence. The initial report may be made by telephone and shall include:
 - a. The facility name and location
 - b. The process unit or emission source deviating from the permit limit,
 - c. The permit limit, including the identification of pollutants, from which deviation occurs,
 - d. The date and time the deviation started,
 - e. The duration of the deviation,
 - f. The average emissions during the deviation,
 - g. The probable cause of such deviations,
 - h. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future, and
 - i. The name of the person submitting the report.

The permittee shall make a full report in writing to the Department within five (5) business days of discovery of the occurrence. The report must include, in addition to the information required by the initial report, a schedule of actions taken or planned to eliminate future occurrences and/or to minimize the amount the permit's limits were exceeded and to reduce the length of time the limits were exceeded. The permittee may submit a full report in writing (by facsimile, overnight courier, or other means) by the next business day after discovery of the occurrence, and the report will serve as both the

Permit: 0271-AOP-R7

AFIN: 21-00036

initial report and full report. [40 CFR 70.6(a)(3)(iii)(B), Regulation 26, §26.701(C)(3)(b), Regulation 19, §19.601 and §19.602]

- 9. If any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity will not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Regulation are declared to be separable and severable. [40 CFR 70.6(a)(5), Regulation 26, §26.701(E), and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation 26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. §7401, et seq. and is grounds for enforcement action; for permit termination, revocation and reissuance, for permit modification; or for denial of a permit renewal application. [40 CFR 70.6(a)(6)(i) and Regulation 26, §26.701(F)(1)]
- 11. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit. [40 CFR 70.6(a)(6)(ii) and Regulation 26, §26.701(F)(2)]
- 12. The Department may modify, revoke, reopen and reissue the permit or terminate the permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 CFR 70.6(a)(6)(iii) and Regulation 26, §26.701(F)(3)]
- 13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR 70.6(a)(6)(iv) and Regulation 26, §26.701(F)(4)]
- 14. The permittee must furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee must also furnish to the Director copies of records required by the permit. For information the permittee claims confidentiality, the Department may require the permittee to furnish such records directly to the Director along with a claim of confidentiality. [40 CFR 70.6(a)(6)(v) and Regulation 26, §26.701(F)(5)]
- 15. The permittee must pay all permit fees in accordance with the procedures established in Regulation 9. [40 CFR 70.6(a)(7) and Regulation 26, §26.701(G)]
- 16. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for

Permit: 0271-AOP-R7

AFIN: 21-00036

changes provided for elsewhere in this permit. [40 CFR 70.6(a)(8) and Regulation 26, \$26.701(H)]

- 17. If the permit allows different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the operational scenario. [40 CFR 70.6(a)(9)(i) and Regulation 26, §26.701(I)(1)]
- 18. The Administrator and citizens may enforce under the Act all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, unless the Department specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 CFR 70.6(b) and Regulation 26, §26.702(A) and (B)]
- 19. Any document (including reports) required by this permit must contain a certification by a responsible official as defined in Regulation 26, §26.2. [40 CFR 70.6(c)(1) and Regulation 26, §26.703(A)]
- 20. The permittee must allow an authorized representative of the Department, upon presentation of credentials, to perform the following: [40 CFR 70.6(c)(2) and Regulation 26, §26.703(B)]
 - a. Enter upon the permittee's premises where the permitted source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records required under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d. As authorized by the Act, sample or monitor at reasonable times substances or parameters for assuring compliance with this permit or applicable requirements.
- 21. The permittee shall submit a compliance certification with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The permittee must submit the compliance certification annually within 30 days following the last day of the anniversary month of the initial Title V permit. The permittee must also submit the compliance certification to the Administrator as well as to the Department. All compliance certifications required by this permit must include the following: [40 CFR 70.6(c)(5) and Regulation 26, §26.703(E)(3)]
 - a. The identification of each term or condition of the permit that is the basis of the certification;
 - b. The compliance status;
 - c. Whether compliance was continuous or intermittent;

Permit: 0271-AOP-R7

AFIN: 21-00036

- d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit;
- e. and Such other facts as the Department may require elsewhere in this permit or by §114(a)(3) and §504(b) of the Act.
- 22. Nothing in this permit will alter or affect the following: [Regulation 26, §26.704(C)] The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section; the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance; the applicable requirements of the acid rain program, consistent with §408(a) of the Act or, the ability of EPA to obtain information from a source pursuant to §114 of the Act.
- 23. This permit authorizes only those pollutant emitting activities addressed in this permit. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 24. The permittee shall update all monthly records by the 15th day following the month to which the records pertain. [§19.705, §18.1004, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

APPENDIX A

40 CFR 60, Subpart BB, Standards of Performance for Kraft Pulp Mills

APPENDIX B

40 CFR 60, Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for which Construction Commenced After August 17, 1971

APPENDIX C

40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

APPENDIX D

40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

APPENDIX E

40 CFR 60, Subpart Kb, Standards of Performance for Volatile Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, Modification Commenced after July 23, 1984

APPENDIX F

40 CFR 63, Subpart S, National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry

APPENDIX H

40 CFR 63, Subpart MM, National Emission Standards for Hazardous Air Pollutants from Chemical Recovery Combustion from Sources at Kraft, Soda, Sulfite, and Stand-alone Semichemical Pulp Mills

APPENDIX G ADEQ CEMS Conditions