# OPERATING AIR PERMIT

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

Permit #: 385-AOP-R2

IS ISSUED TO:

Gaylord Container Corporation Pine Bluff Mill / Mid-America Packaging 1701 Jefferson Parkway Pine Bluff, AR 71602 Jefferson County CSN: 35-0017

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:

July 13, 1998 and July 12, 2003

AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

Keith A. Michaels

Modified Date

SECTION I: FACILITY INFORMATION

PERMITTEE:	Gaylord Container Corporation
	Pine Bluff Mill / Mid-America Packaging
CSN:	35-0017
PERMIT NUMBER:	385-AOP-R2
FACILITY ADDRESS:	1701 Jefferson Parkway
	Pine Bluff, Arkansas 71602
COUNTY:	Jefferson
CONTACT PERSON:	Alban Bush, Director of Technical Services
TELEPHONE NUMBER:	(870) 541-5049
REVIEWING ENGINEER:	Kimberly Lindsey
UTM North-South (X):	3792.0
UTM East-West (Y):	589.6

#### **SECTION II: INTRODUCTION**

Gaylord Container Corporation (Gaylord) operates a kraft pulp and paper mill in Pine Bluff, Arkansas. Mid-America Packaging (Mid-America), a subsidiary of Gaylord, manufactures multiwall bags from the paper produced by Gaylord. The modification to this permit is to clarify the wording of three specific conditions (SC # 28, # 44, #60) which require monitoring of specified parameters associated with scrubber pressure. There are no emission limit increases associated with this modification.

Gaylord and Mid-America are subject to regulation under Regulation #18 (Air Code), Regulation #19 (SIP) and Regulation #26. Gaylord is also subject to NESHAP Subpart S - National Emission Standard for Hazardous Air Pollutants from the Pulp and Paper Industry. Mid-America is also subject to NESHAP Subpart KK – National Emission Standards for the Printing and Publishing Industry.

#### **Pine Bluff Mill**

Chips are brought in as raw material at Gaylord's Pine Bluff Mill. Chips are unloaded into hoppers and conveyed to the screening system which separates acceptable from unacceptable material. A fan is used to separate knots and rocks from the chips and a cyclone is used to collect the chips. Unacceptable material is sent to the hogged fuel storage piles. Acceptable chips are stored in chip piles or in the chip silo.

Chips are conveyed from the chip silo to the digesters (SN-13 and SN-17). A mixture of white liquor and spent caustic from the white liquor measuring tank and black liquor from the washers is charged along with the chips. A batch is cooked by recirculating liquor through a steam supplied heat exchanger.

During digester cooks, the capping valve at the top of the digester is closed. Gases generated during the cooking cycle are extracted from the digester and flow to the turpentine system where the gases are condensed. The resulting turpentine is stored until being loaded into railcars. Non-condensible gases (NCGs) generated are collected and burned in the lime kiln. Between and during chip fills, the capping valve is open and any remaining gases are released to the atmosphere.

Upon completion of the cook, the contents of the digesters are blown to the blow tank. Gases from the blow tank are condensed in the primary and secondary condensers. Water and condensed gases fall into the accumulator while the remaining NCGs are collected and burned in the lime kiln (SN-01). Hot water overflow from the top of the accumulator is sent to the ground level sewer drain where it flashes upon contact. A vent hood located over the sewer drain opening collects the vapors

and an exhaust fan connected to the vent hood draws vapors from the hood and discharges them to the atmosphere. Gaylord is currently considering source reduction alternatives to control the emissions from this vent.

From the blow tank, the pulp is sent to the washers (SN-08A and SN-08B) to remove black liquor which flows to the foam tank (SN-11). The black liquor is de-foamed before it is pumped to weak black liquor storage.

Washed pulp is sent from the washers to the high density tanks for storage. Recycled paper (secondary fiber) is used as supplemental feed stock. Secondary fiber is reduced to a pulp form in the pulper tub and sent to high density storage.

Pulp from the high density storage tanks (SN-36 and SN-37) is pumped to the decker where the consistency is adjusted to the desired level before being sent to the paper machine. Blowers (SN-16A thru SN-16C) and vacuum pumps (SN-18 and SN-19A thru SN-19D) pull a vacuum on the wet end of the paper machine to aid in drying the paper sheet. The paper sheet then passes to the dry end (SN-15A thru SN-15J) where it is further dried over steam heated dryer cans. Air heated by natural gas fired burners is blown into the dryer section to aid in the drying process. Emissions from the dry end of the paper machine are captured by an exhaust hood and discharged to the atmosphere. As the sheet exits the dry end it is wound onto rolls in preparation for shipping.

Weak black liquor from the weak black liquor storage tanks (SN-33 and SN-34) is pumped to the black liquor evaporators where the solids content of the black liquor is increased due to evaporation of water. Pure steam is used as the heat source for the first evaporator while a mixture of steam and vapor is used as the heat source for subsequent evaporators. Vapor from the evaporators is collected and condensed, and the remaining non-condensible gases (NCGs) are burned in the lime kiln. Black liquor is pumped from the evaporators to the soap collection system where the soap is skimmed and stored in preparation for railcar loading. Heavy black liquor from the final evaporator is pumped to the heavy black liquor storage.

Black liquor from the heavy black liquor storage is pumped to the black liquor oxidation tank (SN-12) where air is blown into the oxidizer tank, contacting the black liquor and raising the solids content. The liquor is then pumped to the recovery boiler (SN-02) where it is burned, creating the heat necessary to produce steam for use throughout the mill. Natural gas is used for startup of the recovery boiler. Boiler flue gases are blown through the electrostatic precipitator and sent to the total reduced sulfur (TRS) scrubber where the gases are cleaned and discharged.

The recovery operations recover spent cooking chemicals for reuse in the digesters. Smelt resulting from the combustion process flows to the smelt dissolving tank (SN-04) where it is dissolved to form

green liquor which is sent to the caustic area. Gases emitted during the dissolving process are cleaned in a scrubber and discharged.

Green liquor passes through a clarifier (SN-31 and SN-35) which removes dregs before it is sent to storage (SN-20 and SN-21). Clarified green liquor is then sent to the slaker (SN-03) where fresh lime and reburned lime are added to form sodium hydroxide and calcium carbonate. The dregs are washed with water and discarded to the sewer (SN-23 and SN-24).

This white slurry then passes through the causticizers before entering a clarifier. Here lime mud is separated from the white liquor. The white liquor is sent to storage to be used in the pulping process. Dilute lime mud is then washed with water, the cake is collected in a filter (SN-14), and the cake is fed to the lime kiln (SN-01). The reburned lime is sent to storage. Gaylord purchases fresh lime to be used as make up for the reburned lime. The fresh lime is delivered and unloaded by a pneumatic truck. Air is blown into the storage compartment of the truck to force the lime from the storage compartment into the lime silo (SN-10).

Heat is provided to the lime kiln by burning natural gas along with non-condensible gas (NCG) collected from the mill. Flue gases from the lime kiln pass through two scrubbers in series to remove dust before being discharged to the atmosphere.

A hog fuel boiler (SN-05) and a power boiler (SN-06) are operated to meet the steam demands of the mill. Hog fuel (bark, fines, knots) is burned in the hog fuel boiler to generate steam for the mill. Flue gas from the boiler passes through a cyclone and a scrubber to remove particulate before being discharged to the atmosphere. Natural gas is used for startup of the boiler and as an auxiliary fuel. Natural gas is the only fuel used in the power boiler which converts water to steam for the mill.

## **Mid-America Packaging**

Mid-America is a manufacturer of multi-wall bags. Paper printed with graphics specified by the customer is used as the outer layer of the bags. The plates used in the printing process are made onsite at Mid-America. Several layers of paper are pasted together and the paper is folded and pasted into tubes. The tubes are bottomed to form the bags, and the bags are shipped to the customer.

Mid-America has four printing presses, No. 1 through No. 4, which are capable of printing different colors on a single roll of paper. Presses No. 3 and No. 4 also have the capability to apply a water-based lacquer coating to the paper. Various additives are mixed with the ink to maintain appropriate application conditions.

Press No. 3 is equipped with two drying chambers heated by natural gas. After ink has been applied to the paper, the sheet passes through the Tunnel Dryer (SN-102). Water-based lacquer is then applied to the paper sheet and the sheet passes through another heated chamber connected to the Lacquer Dryer (SN-103).

Press No. 4 is equipped with three natural gas heated drying chambers and one chamber consisting of a blower only (no combustion unit). Ink is dried as the paper sheet passes through chambers connected to the Between Decks Dryer (SN-104) and the Tunnel Dryer (SN-105). The paper then enters another chamber into which unheated air is blown by the Auxiliary Blower (SN-106). Water-based lacquer is then applied to the paper sheet and the sheet passes through another heated chamber connected to the Lacquer Dryer (SN-107). The printed paper sheet then enters the rewind unit where it is wound onto a reel.

Bags are assembled using the printed paper rolls as the outer wall of the bags. Layers of paper are pasted together, the paper is folded and pasted into tubes, and the bottoms of the tubes are pasted or sewn shut. The bags are then prepared for shipping.

Bottom and seam paste are made on site at Mid-America. Starch and water are combined and cooked to make the paste. During the addition of the starch to the cooker, an exhaust hood fan (SN-101) pulls particulate matter from the work area and exhausts it to the atmosphere. After the batch is cooked, resin and other ingredients are added to the paste. A natural gas fired boiler (SN-100) produces the steam necessary to cook the paste.

	EMISSION SUMMARY						
Source	Description	Pollutant	Emissi	Emission Rates			
No.			lb/hr	ton/yr	Reference Page		
	llowable Emissions	PM	154.3	429.5	N/A		
	Mill and Mid-America aging Combined)	$PM_{10}$	154.3	429.5			
		SO <sub>2</sub>	30.3	110.4			
		VOC	573.7	2,216.5			
		СО	7,907.6	22,310.5			
		NO <sub>X</sub>	70.5	295.8			
		Pb	0.008	0.031			
		TRS	33.8	373.7			
		Pine Bluff Mill					
01	Lime Kiln	PM PM <sub>10</sub> SO <sub>2</sub> VOC CO NO <sub>x</sub> Pb TRS	5.7 5.7 6.3 3.4 2.1 12.5 0.003 2.9	24.7 24.7 9.2 12.5 8.2 48.8 0.011 12.8	53		
02	Recovery Boiler	PM PM <sub>10</sub> SO <sub>2</sub> VOC CO NO <sub>x</sub> TRS	27.9 27.9 21.2 374.2 7703.6 15.5 26.2	122.0 122.0 92.7 1638.9 21,420.0 67.9 114.8	38		
03	Lime Slaker	PM PM <sub>10</sub> VOC TRS	3.0 3.0 0.7 0.1	13.1 13.1 2.7 0.1	47		

	EI	MISSION SUMMAR	Y		
Source	Description	Pollutant	Emission Rates		Cross
No.			lb/hr	ton/yr	Reference Page
04	Smelt Dissolving Tank	PM PM <sub>10</sub> SO <sub>2</sub> VOC NO <sub>X</sub> TRS	4.2 4.2 0.4 3.8 6.6 0.7	16.3 16.3 1.4 16.3 28.7 3.0	44
05	Hog Fuel Boiler	PM PM <sub>10</sub> SO <sub>2</sub> VOC CO NO <sub>X</sub> Pb	53.6 53.6 1.1 7.1 197.6 20.3 0.005	234.7 234.7 4.2 31.1 865.2 82.2 0.02	64
06	Power Boiler	PM PM <sub>10</sub> SO <sub>2</sub> VOC CO NO <sub>X</sub>	1.1 1.1 0.1 0.3 2.7 10.7	4.9 4.9 0.5 1.4 11.9 46.9	68
08A	Washer Hood Exhaust Fan A				
08B	Washer Hood Exhaust Fan B	These sources are (SN-01) as require			28
11	Foam Tank Stack				
10	Fresh Lime Storage	PM PM <sub>10</sub>	55.0 55.0	5.0 5.0	47
12	Black Liquor Oxidation Tank Stack	SO <sub>2</sub> VOC TRS	0.5 8.2 0.8	1.7 35.9 3.6	35
14	Lime Mud Filter Vacuum Pump	VOC TRS	0.3 0.1	1.0 0.1	47
13	Digester Building Vent (No. 1 and No. 2)	VOC TRS	5.4 0.2	$15.0^{1}$ $0.5^{1}$	26

	EN	MISSION SUMMA	RY		
Source	Description	Pollutant	Emissi	on Rates	Cross
No.			lb/hr	ton/yr	Reference Page
17	Digester Building Vent No. 3	VOC TRS	2.7 0.1		26
15 (A thru J)	Paper Machine Dry End Fans (1, 1A, 1B, 2, 2A, 3, 3A, 4, 5 and 6)	PM PM <sub>10</sub> SO <sub>2</sub> VOC CO NO <sub>X</sub> TRS	$0.4 \\ 0.4 \\ 0.1 \\ 8.8^2 \\ 1.0 \\ 3.9 \\ 0.3$	$     1.8 \\     1.8 \\     0.1 \\     31.1^2 \\     4.4 \\     17.1 \\     0.8 $	29
16A	Fourdrinier Blower A	VOC	6.9 <sup>2</sup>	24.5 <sup>2</sup>	29
16B	Fourdrinier Blower B	VOC	5.8 <sup>2</sup>	20.6 <sup>2</sup>	29
16C	Fourdrinier Blower C	VOC	6.9 <sup>2</sup>	24.5 <sup>2</sup>	29
18	Paper Machine Vacuum Pumps (1 thru 3)	VOC	11.8 <sup>2</sup>	41.6 <sup>2</sup>	29
19A	Paper Machine Vacuum Pump 4	VOC	7.4 <sup>2</sup>	26.1 <sup>2</sup>	29
19B	Paper Machine Vacuum Pump 5	VOC	7.4 <sup>2</sup>	26.1 <sup>2</sup>	29
19C	Paper Machine Vacuum Pump 6	VOC	7.4 <sup>2</sup>	26.1 <sup>2</sup>	29
19D	Paper Machine Vacuum Pump 7	VOC	9.6 <sup>2</sup>	33.8 <sup>2</sup>	29
20	Green Liquor Storage Tank North	VOC TRS	0.9 0.1	3.2 0.1	50
21	Green Liquor Storage Tank South	VOC TRS	0.9 0.1	3.2 0.1	50
22	Multi Purpose Tank	VOC TRS	0.9 0.1	3.2 0.1	50
23	Dregs Mixer	VOC TRS	0.9 0.1	3.2 0.1	47

	EN	MISSION SUMMA	RY		
Source	Description	Pollutant	Emission Rates		Cross
No.			lb/hr	ton/yr	Reference Page
24	Dregs Washer	VOC TRS	0.9 0.1	3.2 0.1	47
27	White Liquor Clarifier No. 2	VOC	0.2	0.5	47
28	East White Liquor Storage Tank	VOC	0.2	0.5	50
29	West White Liquor Storage Tank	VOC	0.2	0.5	50
30	White Liquor Measuring Tank	VOC	0.2	0.5	50
31	Green Liquor Clarifier No.2	VOC TRS	0.9 0.1	3.2 0.1	47
32	Weak Wash Storage Tank	VOC TRS	0.9 0.1	3.2 0.1	50
33	North Weak Black Liquor Tank	VOC TRS	0.9 0.1	4.0 0.3	35
34	South Weak Black Liquor Tank	VOC TRS	0.9 0.1	4.0 0.3	35
35	Green Liquor Clarifier No.1	VOC TRS	0.9 0.1	3.2 0.1	47
36	High Density Storage Tank No.2	VOC TRS	0.1 0.1	0.4 0.3	33
37	High Density Storage Tank No.3	VOC TRS	0.1 0.1	0.4 0.3	33
38	Heavy Black Liquor Storage Tank No.2	VOC TRS	0.2 0.3	0.8 1.0	35
39	Black Liquor Spill Tank	VOC TRS	0.2	0.8 1.0	35
40	Paper Machine General Building Ventilation	VOC TRS		$36.0^{2}$ 1.3	29

	EI	MISSION SUMMAR	ĽΥ		
Source	Description	Pollutant	Emission Rates		Cross
No.			lb/hr	ton/yr	Reference Page
41	Aeration Basin	VOC TRS		7.0 231.3	58
50	Chip and Hogged Fuel Storage Piles	PM PM <sub>10</sub> VOC	  	0.1 0.1 4.8	70
51	Saveall Tank	VOC TRS	$5.5^2$ 0.1	19.5 <sup>2</sup> 0.1	70
52	Outside White Water Chest	VOC TRS	$5.5^2$ 0.1	19.5 <sup>2</sup> 0.1	70
53	Landfill	CO VOC TRS	  	0.2 2.1 0.1	70
54	DAF Unit	VOC TRS	$5.5^{2}$ 0.1	19.5 <sup>2</sup> 0.1	70
55	No. 3 Strong Black Liquor Storage Tank	VOC TRS	0.2 0.3	0.8 1.0	35
-	LVHC/HVLC System	-	-	-	78
-	Condensate Collection System	-	-	-	83
	Μ	lid-America Packagin	ıg		
100	Natural Gas Fired Boiler	PM PM <sub>10</sub> SO <sub>2</sub> VOC CO NO <sub>X</sub>	$\begin{array}{c} 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \end{array}$	$0.1 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.5$	73, 78, 83
101	Mixer Hood Exhaust	PM PM <sub>10</sub>	2.8 2.8	6.3 6.3	73, 78, 83

	EMISSION SUMMARY						
Source	Description	Pollutant	Emissi	on Rates	Cross Reference		
No.			lb/hr	ton/yr	Page		
102 thru 108	No. 3 Press (Tunnel Dryer Vent and Lacquer Dryer Vent) No. 4 Press (Between Decks Dryer Vent, Tunnel Blower Vent, Auxiliary Blower Vent, and Lacquer Dryer Vent) General Building Ventilation	PM PM <sub>10</sub> SO <sub>2</sub> VOC CO NO <sub>x</sub>	$\begin{array}{c} 0.5 \\ 0.5 \\ 0.5 \\ 68.4 \\ 0.5 \\ 0.9 \end{array}$	0.5 0.5 0.5 60.0 0.5 3.7	73, 78, 83		

<sup>1</sup>Total for SN-13 and SN-17.

 $^{2}$  Includes total methanol (5.2 lb/hr and 18.3 ton/yr) for all paper machine sources (SN-15, 16, 17, 18, 19, 40, 51, 52, 54).

EMISSION SUMMARY						
Source	Description Pollutant	Emissi	on Rates	Cross		
No.			lb/hr	ton/yr	Reference Page	
	Allowable Emissions	Acetaldehyde	21.26	75.82	N/A	
	uff Mill and Mid-America ckaging Combined)	Acetone	17.3	62.4		
		Acrolein	0.18	0.59		
		Acrylamide	0.011	0.05		
		Acrylonitrile	0.1	0.1		
		Ammonia	5.22	21.71		
		Aniline	0.1	0.2		
		Arsenic	0.1	0.1		
		Barium	0.3	0.5		
		Benzene	0.2	0.8		
		Beryllium	0.1	0.1		
		Cadmium	0.1	0.1		
		Carbon Disulfide	0.3	0.9		
		Chloromethane	69.1	302.4		
		Chromium +6	0.4	0.4		
		Copper	0.3	0.3		
		Ethylene glycol	11.0	5.29		
		Formaldehyde	3.55	13.69	1	
		Glycol Ethers	4.5	5.29	1	
		Hydrochloric Acid	1.8	7.2	1	
	-	Iodomethane	0.9	3.6	1	
		Manganese	0.2	0.6	1	
		Methanol	296.2	1287.5	1	
		MEK	0.9	3.9	1	
		2-Methylphenol	5.9	25.9		
		MIBK	22.53	5.29		

EMISSION SUMMARY						
Source	Description	Pollutant	Emissic	on Rates	Cross	
No.			lb/hr	ton/yr	Reference Page	
	l Allowable Emissions uff Mill and Mid-America	Phenol	8.8	38.5	N/A	
· · · · · · · · · · · · · · · · · · ·	ckaging Combined)	Phosphorus	0.3	0.5		
		Silver	0.3	0.3		
		Styrene	0.4	1.8		
		Sulfuric Acid	0.2	0.8		
		Thallium	0.2	0.2		
		Vinyl Acetate	3.87	9.49		
		Xylene	47.8	5.29		
		Zinc	0.3	0.5		
		Pine Bluff Mill				
01	Lime Kiln	Acetaldehyde Acetone Acrolein Barium Chromium +6 Copper Methanol 2-Methylphenol Phenol Phosphorus Silver Thallium Zinc	$\begin{array}{c} 0.01 \\ 0.2 \\ 0.01 \\ 0.1 \\ 0.1 \\ 1.6 \\ 0.01 \\ 0.01 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \end{array}$	$\begin{array}{c} 0.03 \\ 0.6 \\ 0.02 \\ 0.1 \\ 0.1 \\ 0.1 \\ 5.1 \\ 0.03 \\ 0.01 \\ 0.2 \\ 0.1 \\ 0.1 \\ 0.1 \end{array}$	53	

	EMISSION SUMMARY						
Source No.	Description	Pollutant	Emissic	on Rates	Cross Reference		
110.			lb/hr	ton/yr	Page		
02	Recovery Boiler	Acetaldehyde Acetone Acrolein Acrylonitrile Aniline Benzene Carbon Disulfide Chloromethane Chromium +6 Formaldehyde Hydrochloric Acid Iodomethane Methanol MEK 2-Methylphenol Phenol Styrene Sulfuric Acid	$ \begin{array}{c} 14.9\\ 9.1\\ 0.03\\ 0.1\\ 0.1\\ 0.2\\ 0.2\\ 69.1\\ 0.1\\ 1.3\\ 1.8\\ 0.9\\ 270.8\\ 0.9\\ 5.9\\ 8.8\\ 0.4\\ 0.2\\ \end{array} $	$\begin{array}{c} 65.2\\ 39.9\\ 0.12\\ 0.1\\ 0.2\\ 0.8\\ 0.7\\ 302.4\\ 0.1\\ 5.7\\ 7.2\\ 3.6\\ 1185.8\\ 3.9\\ 25.5\\ 38.5\\ 1.8\\ 0.8\\ \end{array}$	38		
03	Lime Slaker	Acetaldehyde Acetone Ammonia Methanol	0.3 0.2 2.3 0.3	1.2 0.5 9.0 1.2	47		
04	Smelt Dissolving Tank	Acetone Ammonia Barium Chromium +6 Copper Methanol Phosphorus Silver Thallium Zinc	$\begin{array}{c} 0.1 \\ 1.0 \\ 0.1 \\ 0.1 \\ 0.1 \\ 3.3 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \end{array}$	$\begin{array}{c} 0.5 \\ 4.3 \\ 0.1 \\ 0.1 \\ 0.1 \\ 14.1 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \end{array}$	44		

	EMISSION SUMMARY						
Source	Description	Pollutant	Emissic	Emission Rates			
No.			lb/hr	ton/yr	Reference Page		
05	Hog Fuel Boiler	Acetone Acrolein Arsenic Barium Beryllium Cadmium Chromium +6 Copper Formaldehyde Manganese Methanol Phosphorus Silver Zinc	$\begin{array}{c} 0.1 \\ 0.01 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.2 \\ 0.3 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \end{array}$	$\begin{array}{c} 0.1 \\ 0.01 \\ 0.1 \\ 0.3 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.1 \\ 0.3 \\ 0.6 \\ 1.0 \\ 0.2 \\ 0.1 \\ 0.3 \end{array}$	64		
08A 08B	Washer Hood Exhaust Fan A Washer Hood	These sources are routed to	28				
11	Exhaust Fan B	as required by NESI	HAP Subpart	5			
11	Foam Tank Stack Black Liquor Oxidation Tank Stack	Acetaldehyde Carbon Disulfide Methanol	0.5 0.1 6.7	2.0 0.2 29.0	35		
13	Digester Building Vent (No. 1 and No. 2)	Acetone	0.1	$0.2^{1}$	26		
17	Digester Building Vent No. 3	Acetone	0.1	0.2*	26		
14	Lime Mud Filter Vacuum Pump	Acetone	0.1	0.1	47		
15 (A thru J)	Paper Machine Dry End Fans (1, 1A, 1B, 2, 2A, 3, 3A, 4, 5 and 6)	Acetaldehyde Acetone Acrolein Formaldehyde Methanol	$0.6 \\ 0.6 \\ 0.13 \\ 0.5 \\ 5.2^2$	$2.1 \\ 2.5 \\ 0.44 \\ 1.8 \\ 18.3^2$	29		

		EMISSION SUMMAR	RY		
Source	Description	Pollutant	Emissic	Emission Rates	
No.			lb/hr	ton/yr	Reference Page
16A	Fourdrinier Blower A	Acetone Methanol	$0.2 \\ 5.2^2$	$0.4 \\ 18.3^2$	29
16B	Fourdrinier Blower B	Acetone Methanol	$0.1 \\ 5.2^2$	$0.2 \\ 18.3^2$	29
16C	Fourdrinier Blower C	Acetone Methanol	$0.2 \\ 5.2^2$	$0.4 \\ 18.3^2$	29
18	Paper Machine Vacuum Pumps (1 thru 3)	Acetone Methanol	$1.3 \\ 5.2^2$	4.4 18.3 <sup>2</sup>	29
19A	Paper Machine Vacuum Pump 4	Acetone Methanol	$0.5 \\ 5.2^2$	1.5 $18.3^2$	29
19B	Paper Machine Vacuum Pump 5	Acetone Methanol	$0.5 \\ 5.2^2$	$1.5 \\ 18.3^2$	29
19C	Paper Machine Vacuum Pump 6	Acetone Methanol	$0.5 \\ 5.2^2$	$1.5 \\ 18.3^2$	29
19D	Paper Machine Vacuum Pump 7	Acetone Methanol	$0.9 \\ 5.2^2$	$3.0 \\ 18.3^2$	29
20	Green Liquor Storage Tank North	Acetone Methanol	0.1 0.8	0.1 3.1	50
21	Green Liquor Storage Tank South	Acetone Methanol	0.1 0.8	0.1 3.1	50
22	Multi Purpose Tank	Acetone Methanol	0.1 0.8	0.1 3.1	50
23	Dregs Mixer	Acetone Methanol	0.1 0.8	0.1 3.1	47
24	Dregs Washer	Acetone Methanol	0.1 0.8	0.1 3.1	47
27	White Liquor Clarifier No. 2	Acetone	0.1	0.1	47
28	East White Liquor Storage Tank	Acetone	0.1	0.1	50

	EMISSION SUMMARY				
Source	Description	Description Pollutant		Emission Rates	
No.			lb/hr	ton/yr	Reference Page
29	West White Liquor Storage Tank	Acetone	0.1	0.1	50
30	White Liquor Measuring Tank	Acetone	0.1	0.1	50
31	Green Liquor Clarifier No.2	Acetone Methanol	0.1 0.8	0.1 3.1	47
32	Weak Wash Storage Tank	Acetone Methanol	0.1 0.8	0.1 3.1	50
33	North Weak Black Liquor Tank	Acetone Methanol	0.1 0.8	0.1 3.2	35
34	South Weak Black Liquor Tank	Acetone Methanol	0.1 0.8	0.1 3.2	35
35	Green Liquor Clarifier No.1	Acetone Methanol	0.1 0.8	0.1 3.1	47
36	High Density Storage Tank No.2	Acetone	0.1	0.1	33
37	High Density Storage Tank No.3	Acetone	0.1	0.1	33
38	Heavy Black Liquor Storage Tank No.2	Acetone	0.1	0.2	35
39	Black Liquor Spill Tank	Acetone	0.1	0.2	35
40	Paper Machine General Building Ventilation	Acetone Methanol 2-Methylphenol	 	$1.4 \\ 20.1^2 \\ 0.4$	29
41	Aeration Basin	Formaldehyde Methanol		0.6 6.4	58
51	Saveall Tank	Acetone Methanol	$0.2 \\ 5.2^2$	$0.5 \\ 18.3^2$	70

	EMISSION SUMMARY				
Source	Description	Pollutant	Emissio	Emission Rates	
No.			lb/hr	ton/yr	Reference Page
52	Outside White Water Chest	Acetone Methanol	$0.2 \\ 5.2^2$	$0.5 \\ 18.3^2$	70
53	Landfill	see page	e 71		70
54	DAF Unit	Acetone Methanol	$0.2 \\ 5.2^2$	$0.5 \\ 18.3^2$	70
55	No. 3 Strong Black Liquor Storage Tank	Acetone	0.1	0.2	35
-	LVHC/HVLC System	-	-	-	78
-	Condensate Collection System	_	-	-	83
		Mid-America Packaging			
102 thru 108	No. 3 Press (Tunnel Dryer Vent and Lacquer Dryer Vent) No. 4 Press (Between Decks Dryer Vent, Tunnel Blower Vent, Auxiliary Blower Vent, and Lacquer Dryer Vent) General Building Ventilation	Acetaldehyde Acrylamide Ethylene Glycol Formaldehyde Glycol Ethers MIBK Vinyl Acetate Xylene Ammonia	4.95 0.011 11.0 1.65 4.5 22.53 3.87 47.8 1.92	5.29 0.05 5.29 5.29 5.29 5.29 9.49 5.29 8.41	73, 78, 83

<sup>1</sup> Total for SN-13 and SN-17.

<sup>2</sup> Includes total methanol (5.2 lb/hr and 18.3 ton/yr) for all paper machine sources (SN-15, 16, 17, 18, 19, 40, 51, 52, 54)

#### **SECTION III: PERMIT HISTORY**

The mill first began operating in 1957 and was owned by Dierks Paper Company. In 1970 Weyerhaeuser Company (Weyerhaeuser) purchased the mill.

Weyerhaeuser was issued its first permit, #385-A, for the pulp and paper mill in Pine Bluff, Arkansas, on January 28, 1977. This permit allowed Weyerhaeuser to make several changes at the facility to reduce its dependence upon natural gas and fossil fuels and to provide improved emission controls. Weyerhaeuser installed a woodwaste fired boiler. The lime kiln, which was previously fired only with natural gas, was converted to have the capability of firing fuel oil. A wet scrubber was placed in series with an existing electrostatic precipitator (ESP) to control emissions from the recovery boiler. A black liquor oxidation system was installed to reduce total reduced sulfur (TRS) emissions. Two cyclones were installed to reduce particulate matter emissions from the facility's bark and wood chip facilities.

On July 22, 1983, Weyerhaeuser was issued its modified permit #385-AR-1. This permit deleted the requirement for the TRS characterization program. The condition was no longer necessary because the program had been completed. In addition, this permit deleted the requirement that Weyerhaeuser operate a black liquor oxidation system.

Pursuant to a Consent Administrative Order, Weyerhaeuser proposed to install a scrubber on their woodwaste fired boiler. This scrubber along with the existing multi-clones would enable the boiler to comply with its allowable emission rates. Permit #385-AR-2 was issued on March 13, 1985 to allow the installation of this scrubber.

On September 11, 1987, permit #857-A, was issued to signify the fact that Mid-America Packaging (Mid-America) had purchased the Weyerhaeuser pulp and paper mill in Pine Bluff, Arkansas. This permit also allowed Mid-America to replace the existing scrubber and ESP on the recovery boiler with an ESP alone.

Permit #385-AR-3 was issued on August 25, 1988. This permit indicated that Gaylord, formerly known as Mid-America, now operated the pulp and paper mill formerly owned by Weyerhaeuser in Pine Bluff, Arkansas. This permit allowed Gaylord to install a scrubber to control TRS emissions from the smelt dissolving tank. Gaylord was also permitted to install a system to collect non-condensible gases (NCGs) from the digesters and evaporator and incinerate them in the lime kiln as required by the 111d plan.

On June 1, 1992, Gaylord was issued permit #385-AR-4 to allow the installation of a scrubber on the recovery boiler to control TRS.

Gaylord was issued a consolidated permit, #385-AR-5, on March 3, 1997. This permit included both the Gaylord pulp and paper mill in Pine Bluff, Arkansas, and the Mid-America bag making operations. Permit modifications included the addition of previously unpermitted sources and the addition of three new sources, specifically one fourdrinier blower and two paper machine vacuum pumps.

Permit #385-AOP-R0, issued on July 13, 1998, was the first Title V operating permit issued to the Gaylord Pine Bluff Mill and Mid-America facility under Regulation #26. Some of the emission limits in this permit differ from those found in the last permit. The following are the changes and clarifications proposed by Gaylord to be included in this permit:

- C In some cases, emission factors were used to calculate the emission rates instead of stack test data to facilitate compliance through record keeping.
- C Different or additional emission factors were used to calculate some emissions of VOCs and TRS.
- C Non-VOC hydrocarbons were removed from the VOC totals quantified in the last permit which resulted in an apparent decrease in some VOC emission rates.
- C Gaylord requested an increase in the annual black liquor solids firing rate from 159,688 tons of black liquor solids per year to 173,448 tons of black liquor solids per year. This increased number is based on the hourly rate previously calculated in the last permit and in this permit application. The proposed black liquor solids firing rate increase does not affect recovery boiler emissions because the recovery boiler emissions were based on stack testing data. The rate increase will result in slightly higher annual emissions at other sources at the mill where emission factors are used to calculate emissions. The requested change is not a result of any changes or modifications at the facility. It is merely an alternate way of calculating the yearly firing rate.
- C Permit #385-AR-5 allowed Gaylord to install two paper machine vacuum pumps. Instead of installing two vacuum pumps, Gaylord installed one vacuum pump which is twice the size of the two that were proposed.
- C Gaylord proposes to install two new bag machine lines at Mid-America to enable the facility to begin producing a different type and size of bag. The two new bag lines will require an increase in the usage of adhesives, ink and ink additives, and lacquer. The increase in emissions is calculated to be 25.2 tons per year of VOCs which is less than the PSD level of significance of 40 tons per year.

Location	Description
Pine Bluff Mill	Old Turpentine Separators
Pine Bluff Mill	Old Turpentine Tank
Pine Bluff Mill	Old Lime Slaker
Pine Bluff Mill	Fuel Oil Storage Tank No. 1
Pine Bluff Mill	Fuel Oil Storage Tank No. 2
Pine Bluff Mill	Mini Mercher
Pine Bluff Mill	Barking Drum
Pine Bluff Mill	Aeration Pond Diesel Tank
Mid-America Packaging	Rolowash Tank

The following sources have been permanently removed from service.

First, this permit was modified to include 40 CFR Part 63 Subpart KK – National Emissions Standards for the Printing and Publishing Industry as an applicable requirement. Mid-America is considered a major source for hazardous air pollutants only in conjunction with the adjacent Pulp and Paper Mill. For this reason, Mid-America is subject to regulation under NESHAP Subpart KK. If a facility can meet the Incidental Printing Exemption [40 CFR §63.821(b)], they are subject only to the recordkeeping and reporting requirements of the standard. Mid-America will comply with the Incidental Printing Exemption.

Second, this permit was modified to revise the permitted HAPs for Mid-America. One of Mid-America's ink suppliers recently changed its reporting procedures related to the percentage of HAPs in its ink/ink additives, lacquers, and adhesives. In the past the vendor reported any HAP less than 0.10% as 0.00%; the vendor now reports HAP content as low as 0.001%. Because of this change in reporting methodology, it is necessary to modify the permit to include all the HAPs listed by the vendor.

Third, this permit was modified to incorporate the results of the year long (i.e., July 1997 thru July 1998) Recovery Boiler Carbon Monoxide Emissions Study. This study was conducted in accordance with Specific Conditions #35 thru #39 contained in Permit #385-AOP-R0. These conditions required the installation and operation of a Continuous Emissions Monitoring System for the purpose of conducting a study to determine baseline carbon monoxide emissions from the Recovery Boiler

(SN-02). The ultimate goal of the Study was to establish an accurate and reasonable carbon monoxide permit limit which would allow Gaylord to continue operations while maintaining compliance with federal and state air regulations. The three objectives of the Study were as follows:

- (1) determine baseline clean boiler carbon monoxide emission levels;
- (2) develop proposed carbon monoxide emission limits; and
- (3) develop future operational procedures to ensure permit compliance.

On Fourth, this permit was modified to update the control equipment operating parameters for two sources at the Pine Bluff Mill.

Fifth, this permit was modified to revise the permitting scheme of the Mid-America sources. In order to simplify recordkeeping and achieve the maximum operating flexibility, the emissions from SN-102 through SN-108 have been "bubbled."

Sixth, this permit was modified to include the No. 3 Strong Black Liquor Storage Tank (SN-55). This storage tank had been taken out of service. It was previously used to store used fuel oil.

Seventh, this permit was modified to revise the requirement for a backup incineration device.

The final modification includes requirements outlined in the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Pulp and Paper Industry, 40 CFR Part 63, Subpart S (Cluster Rule). Changes to the permit include the collection and incineration of HVLC gases and the LVHC gases from the Foul Condensate Tank in the Lime Kiln as described in the Cluster Rule. This modification qualifies as a Pollution Control Project and therefore emission increases did not trigger PSD review requirements.

SECTION IV: EMISSION UNIT INFORMATION

## SN-13 and SN-17 Digester Building

#### **Source Description**

Digester No. 1 and Digester No. 2 are vented to the atmosphere through a common vent stack (SN-13) while Digester No. 3 is vented through a separate vent stack (SN-17). It is possible that both Digester No. 1 and Digester No. 2 could be filled during the same one hour period. Digester No. 1 and Digester No. 2 were installed in 2000 while Digester No. 3 was installed before 1976. The digesters are not subject to NSPS Subpart BB.

After the completion of the cooking cycle, the cooked pulp is blown to the blow tank and the digesters are uncapped and filled again with chips and liquor for the next cook. During the filling of the digesters, the air displaced from the digesters is vented to the atmosphere. This gas stream is the source of the digester's emissions.

#### **Specific Conditions**

 Pursuant to §19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control, effective February 15, 1999 (Regulation #19) and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Hourly and annual emission rates set forth in the following table are limited by Specific Condition #3.

Source No.	Description	Pollutant	lb/hr	ton/yr
13	Digester Building Vent	VOC	5.4	
	No. 1 and No. 2	TRS	0.2	15.0 <sup>3</sup>
17	Digester Building Vent	VOC	2.7	$15.0^{3}$ $0.5^{3}$
	No. 3	TRS	0.1	

<sup>3</sup> Total for SN-13 and SN-17.

2. Pursuant to §18.801 of the Arkansas Air Pollution Control Code, effective February 15, 1999 (Regulation #18), and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates in the following table will not be exceeded. Hourly and annual emission rates set forth in the following table are limited by Specific Condition #3.

Source No.	Description	Pollutant	lb/hr	ton/yr
13	Digester Building Vent No. 1 and No. 2	Acetone	0.1	0.23
17	Digester Building Vent No. 3	Acetone	0.1	$0.2^{3}$

<sup>3</sup> Total for SN-13 and SN-17.

- 3. Pursuant to \$19.705 of Regulation #19, \$18.1004 of Regulation #18, A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, and 40 CFR 70.6, the permittee shall not produce in excess of 15,066 air-dried tons of pulp (ADTP) per month or 162,608 ADTP per twelve consecutive months (equivalent to 13,593 bone-dry tons of pulp (BDTP) per month or 146,708 BDTP per twelve consecutive months).
- 4. Pursuant to §19.801 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, noncondensible gases (NCGs) from the digesters (generated during the cooking cycle) must be routed to the Lime Kiln. A copy of §19.801 et seq of Regulation #19 is provided in Appendix B.
- 5. Pursuant to §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, §18.1004 of Regulation #18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #3. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.
- 6. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, by April 16, 2001, the permittee shall have incorporated the accumulator overflow condensates into the Cluster Rule condensate collection and treatment system.

## SN-08A, 08B and 11 Brownstock Washers System

## **Source Description**

Gaylord's brownstock washing system consists of one pressure drum washer (totally enclosed) followed by three vacuum drum washers in series. Gaylord's three brownstock washers are enclosed by a common hood and the emissions from the washers are collected into the High Volume Low Concentration (HVLC) closed collection system. The Lime Kiln serves as the HVLC incineration device. The Brownstock Washers System was installed prior to 1976 and therefore is not subject to NSPS Subpart BB.

The brownstock washers remove black liquor from the pulp. The black liquor is then sent to the Foam Tank (SN-11). The emissions generated from the Foam Tank are also collected into the High Volume Low Concentration (HVLC) closed collection system. The Foam Tank was installed in 1994.

The High Volume Low Concentration (HVLC) gases will be collected from the Brownstock washers (SN-08), Foam Tank (SN-11), Black Liquor Filter, Rejects Surge Tank, and Hot Stock Surge Tank. These gases will now be sent to the Lime Kiln (SN-01) in order to comply with 40 CFR Part 63, Subpart S.

## **Specific Conditions**

7. Pursuant to §19.304 of Regulation 19, and 40 CFR Part 63.443(c)(4), the non-condensible gases from the Brownstock Washers and the Foam Tank are to be enclosed and vented into a closed-vent system and routed to the Lime Kiln (SN-01) thus eliminating emissions from SN-11, SN-08A, and SN-08B. The washers shall not be vented into the atmosphere.

## SN-15A thru 15J, 16A thru 16C, 18, 19A thru 19D and 40 Papermaking Operations

#### **Source Description**

The paper machine consists of a wet end (fourdrinier) and a dry end (steam heated dryer cans). Paper machine vacuum pumps pull a vacuum on the wet end of the paper machine.

The wet end of the paper machine at Gaylord is equipped with three fourdrinier blowers (SN-16A thru SN-16C) and seven vacuum machine pumps (SN-18 and SN-19A thru D).

Ten exhaust fans are associated with the dry end of the paper machine (SN-15A thru SN-15J). The emissions associated with the dry end exhaust fans have been bubbled together.

Fugitive emissions from the wet end of the paper machine, including fugitives from the pulp decker, fourdrinier, press section, and associated process vessels, may exit the building through general building ventilation. SN-40 accounts for these emissions.

#### **Specific Conditions**

8. Pursuant to \$19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Hourly and annual emission rates set forth in the following table are limited by Specific Conditions #11 and #12.

Source No.	Description	Pollutant	lb/hr	ton/yr
15	Paper Machine Dry End Fans	$PM_{10}$	0.4	1.8
(A thru J)	(1, 1A, 1B, 2, 2A, 3, 3A, 4, 5 and 6)	SO <sub>2</sub>	0.1	0.1
		VOC	$8.8^{4}$	31.14
		СО	1.0	4.4
		NO <sub>x</sub>	3.9	17.1
		TRS	0.3	0.8
16A	Fourdrinier Blower A	VOC	6.9 <sup>4</sup>	$24.5^4$
16B	Fourdrinier Blower B	VOC	$5.8^{4}$	$20.6^{4}$

Source No.	Description	Pollutant	lb/hr	ton/yr
16C	Fourdrinier Blower C	VOC	6.9 <sup>4</sup>	$24.5^4$
18	Paper Machine Vacuum Pumps (1 thru 3)	VOC	11.84	41.64
19A	Paper Machine Vacuum Pump 4	VOC	7.44	26.1 <sup>4</sup>
19B	Paper Machine Vacuum Pump 5	VOC	7.44	26.1 <sup>4</sup>
19C	Paper Machine Vacuum Pump 6	VOC	7.44	26.1 <sup>4</sup>
19D	Paper Machine Vacuum Pump 7	VOC	9.64	33.8 <sup>4</sup>
40	Paper Machine General	VOC		36.0 <sup>4</sup>
	Building Ventilation	TRS		1.3

<sup>4</sup> Includes total methanol (5.2 lb/hr and 18.3 ton/yr) for all paper machine sources (SN-15, 16, 17, 18, 19, 40, 51, 52, 54).

- 9. Pursuant to §18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not cause to be discharged to the atmosphere from the Paper Machine Dry End Fans (SN-15A thru SN-15J) gases which exhibit an opacity greater than 5%. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A. Compliance with the opacity limit shall be demonstrated by compliance with Specific Condition #11.
- Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates in the following table will not be exceeded. Hourly and annual emission rates set forth in the following table are limited by Specific Conditions #11 and #12.

Source No.	Description	Pollutant	lb/hr	ton/yr
15	Paper Machine Dry End Fans	РМ	0.4	1.8
(A thru J)	(1, 1A, 1B, 2, 2A, 3, 3A, 4, 5 and 6)	Acetaldehyde	0.6	2.1
		Acetone	0.7	2.5
		Acrolein	0.13	0.44
		Formaldehyde	0.5	1.8
		Methanol	5.24	18.3 <sup>4</sup>
16A	Fourdrinier Blower A	Acetone	0.2	0.4
		Methanol	5.24	18.3 <sup>4</sup>
16B	Fourdrinier Blower B	Acetone	0.1	0.2
		Methanol	5.24	18.3 <sup>4</sup>
16C	Fourdrinier Blower C	Acetone	0.2	0.4
		Methanol	5.24	18.3 <sup>4</sup>
18	Paper Machine	Acetone	1.3	4.4
	Vacuum Pumps (1 thru 3)	Methanol	5.24	18.3 <sup>4</sup>
19A	Paper Machine	Acetone	0.5	1.5
	Vacuum Pump 4	Methanol	5.24	18.3 <sup>4</sup>
19B	Paper Machine	Acetone	0.5	1.5
	Vacuum Pump 5	Methanol	5.24	18.3 <sup>4</sup>
19C	Paper Machine	Acetone	0.5	1.5
	Vacuum Pump 6	Methanol	5.24	18.3 <sup>4</sup>
19D	Paper Machine	Acetone	0.9	3.0
	Vacuum Pump 7	Methanol	5.24	18.3 <sup>4</sup>
40	Paper Machine General	Acetone		1.4
	Building Ventilation	Methanol		20.14
		2-Methylphenol		0.4

<sup>4</sup> Includes total methanol (5.2 lb/hr and 18.3 ton/yr) for all paper machine sources (SN-15, 16, 17, 18, 19, 40, 51, 52, 54).

- 11. Pursuant to §19.705 of Regulation #19, §18.1004 of Regulation #18, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, natural gas shall be the only fuel used for the Pocket Ventilator System (exhausted through SN-15A-J). The maximum heat input of this system is 28.6 million Btu per hour. [The Pocket Ventilator System has been permitted at maximum capacity.]
- 12. Pursuant to \$19.705 of Regulation #19, \$18.1004 of Regulation #18, A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, and 40 CFR 70.6, the permittee shall not produce in excess of 20,708 scale weight tons of paper per month or 208,050 scale weight tons of paper per twelve consecutive months.
- 13. Pursuant to §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, §18.1004 of Regulation #18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Conditions #11 and #12. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.

## SN-36 and SN-37 Associated Paper Machine Storage Tanks

## **Source Description**

The following sources were all installed prior to 1976. The specifications of the Associated Paper Machine Storage Tanks are listed in the following table.

Source No.	Description	Size (gallons)
36	High Density Storage Tank No. 2	359,000
37	High Density Storage Tank No. 3	359,000

## **Specific Conditions**

14. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Hourly and annual emission rates set forth in the following table are limited by Specific Condition #3.

Source No.	Description	Pollutant	lb/hr	ton/yr
36	High Density Storage Tank	VOC	0.1	0.4
	No. 2	TRS	0.1	0.3
37	High Density Storage Tank	VOC	0.1	0.4
	No. 3	TRS	0.1	0.3

15. Pursuant to §18.801 of Regulation #18, the permittee estimates the emission rates in the following table will not be exceeded. Hourly and annual emission rates set forth in the following table are limited by Specific Condition #3.

Source No.	Description	Pollutant	lb/hr	ton/yr
36	High Density Storage Tank No. 2	Acetone	0.1	0.1
37	High Density Storage Tank No. 3	Acetone	0.1	0.1

## SN-12, 33, 34, 38, 39, and 55 Black Liquor Tanks

#### **Source Description**

The following sources, with the exception of the No. 3 Strong Black Liquor Storage Tank, were installed prior to 1976. An existing fuel oil tank was taken out of service and converted to the No. 3 Strong Black Liquor Storage Tank (SN-55) in 2000. The specifications of the Black Liquor Tanks are listed in the following table.

Source No.	Description	Size (gallons)
33	North Weak Black Liquor Tank	125,000
34	South Weak Black Liquor Tank	125,000
38	No. 2 Heavy Black Liquor Storage Tank	352,000
39	Black Liquor Spill Tank	16,000
55	No. 3 Strong Black Liquor Storage Tank	568,000

## **Specific Conditions**

16. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Hourly and annual emission rates set forth in the following table are limited by Specific Conditions #3 and #26.

Source No.	Description	Pollutant	lb/hr	ton/yr
12	Black Liquor Oxidation Tank Stack	$SO_2$	0.5	1.7
		VOC	8.2	35.9
		TRS	0.8	3.6
33	North Weak Black Liquor Tank	VOC	0.9	4.0
		TRS	0.1	0.3

Source No.	Description	Pollutant	lb/hr	ton/yr
34	South Weak Black Liquor Tank	VOC	0.9	4.0
		TRS	0.1	0.3
38	No. 2 Heavy Black Liquor Storage Tank	VOC	0.2	0.8
		TRS	0.3	1.0
39	Black Liquor Spill Tank	VOC	0.2	0.8
		TRS	0.3	1.0
55	No. 3 Strong Black Liquor Storage Tank	VOC	0.2	0.8
		TRS	0.3	1.0

17. Pursuant to \$18.801 of Regulation #18 and A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, the permittee estimates the emission rates in the following table will not be exceeded. Hourly and annual emission rates set forth in the following table are limited by Specific Conditions #3 and #26.

Source No.	Description	Pollutant	lb/hr	ton/yr
12	Black Liquor Oxidation	Acetaldehyde	0.5	2.0
	Tank Stack	Methanol	6.7	29.0
		Carbon Disulfide	0.1	0.2
33 N	North Weak Black Liquor Tank	Acetone	0.1	0.1
		Methanol	0.8	3.2
34	South Weak Black Liquor Tank	Acetone	0.1	0.1
		Methanol	0.8	3.2
38	No. 2 Heavy Black Liquor Storage Tank	Acetone	0.1	0.2
39	Black Liquor Spill Tank	Acetone	0.1	0.2

Source No.	Description	Pollutant	lb/hr	ton/yr
55	No. 3 Strong Black Liquor Storage Tank	Acetone	0.1	0.2

- 18. Pursuant to \$19.801 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, noncondensible gases from the evaporators must be routed to the Lime Kiln at all times. A copy of \$19.801 et seq of Regulation #19 is provided in Appendix B.
- 19. The No. 3 Strong Black Liquor Storage Tank (SN-55) is subject to and shall comply with 40 CFR Part 60 Subpart A General Provisions and 40 CFR Part 60 Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984. A copy of Subpart Kb is provided in Appendix E. The capacity of the tank is approximately 568,000 gallons. Only black liquor, which has a vapor pressure of <1 kPa (<0.145 psi), will be stored in the tank. Gaylord is required to keep tank dimension and capacity records for the life of the tank.

#### SN-02 Recovery Boiler

#### **Source Description**

Weak black liquor from the weak black liquor storage tanks is pumped to the black liquor evaporators where the solids content of the black liquor is increased due to evaporation of liquor. Pure steam is used as the heat source for the first evaporator while a mixture of steam and vapor is used as the heat source for subsequent evaporators. Vapor from the evaporators is collected and condensed, and the remaining non-condensable gases (NCGs) are burned in the lime kiln. Black liquor is pumped from the evaporators to the soap collection system where the soap is skimmed and stored in preparation for railcar loading. Heavy black liquor from the final evaporator is pumped to heavy black liquor storage.

Black liquor from heavy black liquor storage is pumped to the black liquor oxidation tank where air is blown into the tank, contacting the black liquor and raising the solids content. The liquor is then pumped to the recovery boiler where it is burned, creating the heat necessary to produce steam for use throughout the mill. Smelt resulting from the combustion process falls to the bottom of the boiler and flows to the smelt dissolving tank where it is dissolved to form green liquor which is sent to the caustic area.

Natural gas is used as a secondary fuel.

The Recovery Boiler at Gaylord is a 100 million Btu per hour boiler. The boiler is equipped with a scrubber and an electrostatic precipitator. The Recovery Boiler is equipped with a direct contact cascade evaporator. The Recovery Boiler was installed prior to 1976 and therefore is not subject to NSPS Subpart BB.

This permit was modified to incorporate the results of the year long (i.e., July 1997 thru July 1998) Recovery Boiler Carbon Monoxide Emissions Study. This study was conducted in accordance with Specific Conditions #35 thru #39 contained in Permit #385-AOP-R0. These conditions required the installation and operation of a Continuous Emissions Monitoring System for the purpose of conducting a study to determine baseline carbon monoxide emissions from the Recovery Boiler (SN-02). The ultimate goal of the Study was to establish an accurate and reasonable carbon monoxide permit limit which would allow Gaylord to continue operations while maintaining compliance with federal and state air regulations. Considering operational information obtained during the course of the study, the decision was made to pursue the development of CO limits using a statistically based approach.

#### **Specific Conditions**

20. Pursuant to \$19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Hourly and annual emission rates set forth in the following table (except CO) are limited by Specific Conditions #25 and #26. Compliance with the CO emission limits are demonstrated by compliance with Specific Condition #35.

Pollutant	lb/hr	ton/yr
$PM_{10}$	27.9	122.0
SO <sub>2</sub>	21.2	92.7
VOC	374.2	1638.9
СО	7703.6	21420.0
NO <sub>X</sub>	15.5	67.9

21. Pursuant to §19.801 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Data from the CEMS (required by Specific Condition #30) will be used to demonstrate compliance with the TRS concentration limit (ppm) listed below. Hourly and annual emission rates set forth in the following table are limited by Specific Conditions #25 and #26.

Pollutant	lb/hr	ton/yr
TRS	26.2	114.8
	100 measured as $H_2S$ on a dry ba corrected to 8%	•

22. Pursuant to §19.503 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not cause to be discharged to the atmosphere from the Recovery Boiler gases which exhibit an opacity greater than 20%. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A. Compliance with the opacity limit shall be demonstrated by compliance with Specific Condition #23.

- 23. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, daily observations of the opacity from the Recovery Boiler 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, but not necessarily certified, 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 visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of 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.
  - 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 exceedence 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.
- 24. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates in the following table will not be exceeded. Hourly and annual emission rates set forth in the following table are limited by Specific Conditions #25 and #26.

Pollutant	lb/hr	ton/yr
PM	27.9	122.0
Acetaldehyde	14.9	65.2
Acetone	9.1	39.9
Acrolein	0.03	0.12
Acrylonitrile	0.1	0.1
Aniline	0.1	0.2
Benzene	0.2	0.8
Carbon Disulfide	0.2	0.7
Chloromethane	69.1	302.4

Pollutant	lb/hr	ton/yr
Chromium +6	0.1	0.1
Formaldehyde	1.3	5.7
Hydrochloric Acid	1.8	7.2
Iodomethane	0.9	3.6
Methanol	270.8	1185.8
MEK	0.9	3.9
2-Methylphenol	5.9	25.5
Phenol	8.8	38.5
Styrene	0.4	1.8
Sulfuric Acid	0.2	0.8

- 25. Pursuant to \$19.705 of Regulation #19, \$18.1004 of Regulation #18, A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, and 40 CFR 70.6, black liquor solids shall be the primary fuel for the recovery boiler. Natural gas may be used as a secondary fuel.
- 26. Pursuant to \$19.705 of Regulation #19, \$18.1004 of Regulation #18, A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311 and 40 CFR 70.6, the permittee shall not fire in excess of 14,731 tons of black liquor solids per month or 173,448 tons of black liquor solids per twelve consecutive months to the Recovery Boiler.
- 27. Pursuant to §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, §18.1004 of Regulation #18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Conditions #25 and #26. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each month's individual data shall by submitted in accordance with General Provision #7.
- 28. Pursuant to \$19.303 of Regulation #19 and A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, the permittee shall monitor the scrubber liquor flow rate to the TRS scrubber. The flow rate shall be maintained between 1,500 and 5,000 gpm.
  - A. When the Recovery Boiler is operating the scrubber liquid flow rate will be monitored hourly and recorded a minimum of 19 hours in a 24-hour period (approximately 80%).

- B. If one data point recorded in a 24-hour period is outside the permitted range of 1,500 5,000 gpm for the liquid flow rate, all data recorded for that 24-hour period will be averaged. The average liquid flow rate for a 24-hour period will be maintained within the permitted range.
- C. Any 24-hour period that has less than 19 hours of recorded data or has an average liquid flow rate outside the permitted range will be considered a permit violation and shall be reported as one deviation in the Annual Compliance Certification Report.
- 29. Pursuant to \$19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with Specific Condition #28. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes.
- 30. Pursuant to \$19.801 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall continue to operate and maintain CEMs which record the TRS concentration of gases leaving the Recovery Boiler. The TRS monitors shall be operated in accordance with the requirements of 40 CFR 60.284 (date of installation not withstanding) and the Department Continuous Emission Monitoring Systems Conditions. A copy of the Department Continuous Emission Monitoring Systems Conditions is provided in Appendix A. A copy of \$19.801 et seq of Regulation #19 is provided in Appendix B.
- 31. Pursuant to \$19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall test the Recovery Boiler for PM/PM<sub>10</sub> during the first year of each 5-year permit cycle. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 5. Testing shall be used to demonstrate compliance with permitted emission rates.
- 32. Pursuant to \$19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall test the Recovery Boiler for SO<sub>2</sub> during the first year of each 5-year permit cycle. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 6C. Testing shall be used to demonstrate compliance with permitted emission rates.
- 33. Pursuant to \$19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall test the Recovery Boiler for VOC during the first year of each 5-year permit cycle. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 25A. Testing shall be used to demonstrate compliance with permitted emission rates.
- 34. Pursuant to \$19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall test the Recovery Boiler for NO<sub>x</sub> during the first year of each 5-year permit cycle. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 7E. Testing shall be used to demonstrate compliance with permitted emission rates.

#### **Carbon Monoxide Specific Conditions**

- 35. Pursuant to §19.703 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall continue to operate a Continuous Emissions Monitor (CEM) for carbon monoxide on the Recovery Boiler. The CEM shall be operated in accordance with the Department Continuous Emission Monitoring Systems Conditions except where a specific requirement is given by this permit. A copy of the Department Continuous Emission Monitoring Systems Conditions is provided in Appendix A. A 24 hour averaging period will be used.
- 36. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, operational and maintenance procedures will be conducted as necessary to maintain CO emissions below permitted levels.
- 37. Pursuant to \$19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with the previous condition.

#### SN-04 Smelt Dissolving Tank

#### **Source Description**

The recovery operations recover spent cooking chemicals for reuse in the digesters. Smelt resulting from the combustion process flows to the smelt dissolving tank (SN-04) where it is dissolved to form green liquor which is sent to the caustic area. Gases emitted during the dissolving process are cleaned in a scrubber and discharged.

The Smelt Dissolving Tank was installed prior to 1976 and therefore is not subject to NSPS Subpart BB. The Smelt Dissolving Tank is equipped with a scrubber which was installed in 1988.

#### **Specific Conditions**

38. Pursuant to \$19.501 et seq of Regulation #19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Hourly and annual emission rates set forth in the following table are limited by Specific Conditions #3 and #26.

Pollutant	lb/hr	ton/yr
$PM_{10}$	4.2	16.3
$SO_2$	0.4	1.4
VOC	3.8	16.3
NO <sub>X</sub>	6.6	28.7

39. Pursuant to \$19.801 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Hourly and annual emission rates set forth in the following table are limited by Specific Conditions #3, #26, and #43.

Pollutant	lb/hr	ton/yr
TRS	0.7	3.0
	0.0168 g/kg measured as grams of $H_2S$ per kilogram of black liquor solids on a 12 hour average	

- 40. Pursuant to §19.503 of Regulation #18 and 40 CFR Part 52 Subpart E, the permittee shall not cause to be discharged to the atmosphere from the Smelt Dissolving Tank gases which exhibit an opacity greater than 20%. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A. Compliance with the opacity limit shall be demonstrated by compliance with Specific Condition #41.
- 41. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, daily observations of the opacity from the Smelt Dissolving Tank 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, but not necessarily certified, 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 visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of 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.
  - A. The date and time of the observation.
  - B. If visible emission 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 exceedence 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.
- 42. Pursuant to \$18.801 of Regulation #18 and A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, the permittee estimates the emission rates in the following table will not be exceeded. Hourly and annual emission rates set forth in the following table are limited by Specific Conditions #3 and #26.

Pollutant	lb/hr	ton/yr
РМ	4.2	16.3
Acetone	0.1	0.5
Ammonia	1.0	4.3
Barium	0.1	0.1
Chromium +6	0.1	0.1

Pollutant	lb/hr	ton/yr
Copper	0.1	0.1
Methanol	3.3	14.1
Phosphorus	0.1	0.1
Silver	0.1	0.1
Thallium	0.1	0.1
Zinc	0.1	0.1

- 43. Pursuant to §19.801 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall continue to conduct annual compliance testing of TRS emissions from the Smelt Dissolving Tank. Testing shall be conducted in accordance with Plantwide Condition #3 and EPA Reference Method 16. Data reduction shall be performed as set forth in 40 CFR 60.8. The next testing shall be completed on or before October 31, 1998. A copy of §19.801 et seq of Regulation #19 is provided in Appendix B.
- 44. Pursuant to \$19.303 of Regulation #19 and A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, the permittee shall monitor the scrubber media pressure into the scrubber. The scrubber media pressure shall be maintained between 28 and 40 psi.
  - A. When the Smelt Dissolving Tank is operating the scrubber media pressure into the scrubber will be monitored hourly and recorded a minimum of 19 hours in a 24-hour period (approximately 80%).
  - B. If one data point recorded in a 24-hour period is outside the permitted range of 28 40 psi for the scrubber media pressure, all data recorded for that 24-hour period will be averaged. The average liquid flow rate for a 24-hour period will be maintained within the permitted range.
  - C. Any 24-hour period that has less than 19 hours of recorded data or has an average liquid flow rate outside the permitted range will be considered a permit violation and shall be reported as one deviation in the Annual Compliance Certification Report.
- 45. Pursuant to \$19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with Specific Condition #44. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes.

### SN-03, 10, 14, 23, 24, 27, 31 and 35 Caustic Area

#### **Source Description**

Green liquor passes through a clarifier (SN-31 and SN-35) which removes dregs before it is sent to storage (SN-20 and SN-21). Clarified green liquor is then sent to the slaker (SN-03) where fresh lime and reburned lime are added to form sodium hydroxide and calcium carbonate. The dregs are washed with water and discarded to the sewer (SN-23 and SN-24).

This white slurry then passes through the causticizers before entering a clarifier. Here lime mud is separated from the white liquor. The white liquor is sent to storage to be used in the pulping process. Diluted lime mud is then washed with water, the cake is collected in a filter (SN-14), and the cake is fed to the lime kiln (SN-01). The reburned lime is sent to storage. Gaylord purchases fresh lime to be used as make up for the reburned lime. The fresh lime is delivered and unloaded by a pneumatic truck. Air is blown into the storage compartment of the truck to force the lime from the storage compartment into the lime silo (SN-10).

#### **Specific Conditions**

46. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Hourly and annual emission rates set forth in the following table are limited by Specific Condition #58.

Source No.	Description	Pollutant	lb/hr	ton/yr
03	Lime Slaker	$PM_{10}$	3.0	13.1
		VOC	0.7	2.7
		TRS	0.1	0.1
10	Fresh Lime Storage Bin	$PM_{10}$	55.0	5.0
14	Lime Mud Filter Vacuum	VOC	0.3	1.0
	Pump	TRS	0.1	0.1

Source No.	Description	Pollutant	lb/hr	ton/yr
23	Dregs Mixer	VOC	0.9	3.2
			0.1	0.1
24	Dregs Washer	VOC	0.9	3.2
		TRS	0.1	0.1
27	White Liquor Clarifier No. 2	VOC	0.2	0.5
31	Green Liquor Clarifier No. 2	VOC	0.9	3.2
		TRS	0.1	0.1
35	Green Liquor Clarifier No. 1	VOC	0.9	3.2
		TRS	0.1	0.1

- 47. Pursuant to §19.503 of Regulation #18 and 40 CFR Part 52 Subpart E, the permittee shall not cause to be discharged to the atmosphere from the Slaker (SN-03) gases which exhibit an opacity greater than 20%. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A. Compliance with the opacity limit shall be demonstrated by compliance with Specific Condition #48.
- 48. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, daily observations of the opacity from the Slaker 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, but not necessarily certified, 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 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.
  - 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 exceedence 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.
- 49. Pursuant to \$18.801 of Regulation #18 and A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, the permittee estimates the emission rates in the following table will not be exceeded. Hourly and annual emission rates set forth in the following table are limited by Specific Condition #58.

Source No.	Description	Pollutant	lb/hr	ton/yr
03	Lime Slaker	РМ	3.0	13.1
		Acetaldehyde	0.3	1.2
		Acetone	0.2	0.5
		Ammonia	2.3	9.0
		Methanol	0.3	1.2
10	Fresh Lime Storage Bin	РМ	55.0	5.0
14	Lime Mud Filter Vacuum Pump	Acetone	0.1	0.1
23	Dregs Mixer	Acetone	0.1	0.1
		Methanol	0.8	3.1
24	Dregs Washer	Acetone	0.1	0.1
		Methanol	0.8	3.1
27	White Liquor Clarifier No. 2	Acetone	0.1	0.1
31	Green Liquor Clarifier No. 2	Acetone	0.1	0.1
		Methanol	0.8	3.1
35	Green Liquor Clarifier No. 1	Acetone	0.1	0.1
		Methanol	0.8	3.1

### SN-20, 21, 22, 28, 29, 30 and 32 Caustic Area Tanks

### **Source Description**

All of the following Caustic Area Tanks were installed prior to 1976. The Weak Wash Storage Tank (SN-32) stores weak wash which is diluted green liquor. The Multi Purpose Tank (SN-22) stores weak wash, white liquor or green liquor. The specifications of the Caustic Area Tanks are listed in the following table.

Source No.	Description	Size (gallons)
20	Green Liquor Storage Tank North	70,000
21	Green Liquor Storage Tank South	70,000
22	Multi-Purpose Tank	70,000
28	East White Liquor Storage Tank	70,000
29	West White Liquor Storage Tank	70,000
30	White Liquor Measuring Tank	9,490
32	Weak Wash Storage Tank	70,000

#### **Specific Conditions**

50. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Hourly and annual emission rates set forth in the following table are limited by Specific Condition #58.

Source No.	Description	Pollutant	lb/hr	ton/yr
20	Green Liquor Storage Tank	VOC	0.9	3.2
	North	TRS	0.1	0.1
21	Green Liquor Storage Tank	VOC	0.9	3.2
	South	TRS	0.1	0.1
22	Multi Purpose Tank	VOC	0.9	3.2
		TRS	0.1	0.1

Source No.	Description	Pollutant	lb/hr	ton/yr
28	East White Liquor Storage Tank	VOC	0.2	0.5
29	West White Liquor Storage Tank	VOC	0.2	0.5
30	White Liquor Measuring Tank	VOC	0.2	0.5
32	Weak Wash Storage Tank	VOC	0.9	3.2
		TRS	0.1	0.1

51. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates in the following table will not be exceeded. Hourly and annual emission rates set forth in the following table are limited by Specific Condition #58.

Source No.	Description	Pollutant	lb/hr	ton/yr
20	Green Liquor Storage Tank	Acetone	0.1	0.1
	North	Methanol	0.8	3.1
21	Green Liquor Storage Tank	Acetone	0.1	0.1
	South	Methanol	0.8	3.1
22	Multi Purpose Tank	Acetone	0.1	0.1
		Methanol	0.8	3.1
28	East White Liquor Storage Tank	Acetone	0.1	0.1
29	West White Liquor Storage Tank	Acetone	0.1	0.1
30	White Liquor Measuring Tank	Acetone	0.1	0.1
32	Weak Wash Storage Tank	Acetone	0.1	0.1
		Methanol	0.8	3.1

# SN-01

## Lime Kiln

#### **Source Description**

The Lime Kiln at Gaylord has a heat input capacity of 65 million Btu per hour. The Lime Kiln was installed prior to 1976 and therefore is not subject to NSPS Subpart BB. The Lime Kiln is equipped with two scrubbers and is natural gas fired. The Lime Kiln is currently the only incineration device for non-condensible gases (NCGs) at Gaylord. NESHAP Subpart S requires that all Low Volume High Concentration (LVHC) and High Volume Low Concentration (HVLC) gases be controlled within a closed-vent system and incinerated. These gases will be sent to the Lime Kiln. Applicable conditions for the HVLC/LVHC system are listed as a separate source group and begin on page #78 and the source group for the Condensate Collection System begins on page #83.

#### **Specific Conditions**

52. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Hourly and annual emission rates set forth in the following table are limited by Specific Conditions #3, #57 and #58.

Pollutant	lb/hr	ton/yr
PM <sub>10</sub>	5.7	24.7
$SO_2$	6.3	9.2
VOC	3.4	12.5
СО	2.1	8.2
NO <sub>X</sub>	12.5	48.8
Pb	0.003	0.011

53. Pursuant to §19.801 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Data from the CEMS (required by Specific Condition #65) will be used to demonstrate compliance with the TRS concentration limit (ppm) listed below. Hourly and annual emission rates set forth in the following table are limited by Specific Conditions #3, #57 and #58.

Pollutant	lb/hr	ton/yr
TRS	2.9	12.8
	40 g measured as H <sub>2</sub> S on a dry average, corrected to	basis and on a twelve hour

- 54. Pursuant to §19.503 of Regulation #18 and 40 CFR Part 52 Subpart E, the permittee shall not cause to be discharged to the atmosphere from the Lime Kiln gases which exhibit an opacity greater than 20%. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A. Compliance with the opacity limit shall be demonstrated by compliance with Specific Condition #55.
- 55. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, daily observations of the opacity from the Lime Kiln 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, but not necessarily certified, 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 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.
  - 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 exceedence 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.
- 56. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates in the following table will not be exceeded. Hourly and annual emission rates set forth in the following table are limited by Specific Conditions #3, #57 and #58.

Pollutant	lb/hr	ton/yr
РМ	5.7	24.7
Acetaldehyde	0.01	0.03
Acetone	0.2	0.6
Acrolein	0.01	0.02
Barium	0.1	0.1
Chromium +6	0.1	0.1
Copper	0.1	0.1
Methanol	1.6	5.1
2-Methylphenol	0.01	0.03
Phenol	0.01	0.01
Phosphorus	0.1	0.2
Silver	0.1	0.1
Thallium	0.1	0.1
Zinc	0.1	0.1

- 57. Pursuant to \$19.705 of Regulation #19, \$18.1004 of Regulation #18, A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, and 40 CFR 70.6, natural gas shall be the only fuel used in the Lime Kiln.
- 58. Pursuant to \$19.705 of Regulation #19, \$18.1004 of Regulation #18, A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, and 40 CFR 70.6, the permittee shall not use in excess of 4,143 tons of lime (reburned lime + fresh lime) per month or 44,717 tons of lime (reburned lime + fresh lime) per twelve consecutive months.
- 59. Pursuant to §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, §18.1004 of Regulation #18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Conditions #57 and #58. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each month's individual data shall by submitted in accordance with General Provision #7.

- 60. Pursuant to \$19.303 of Regulation #19 and A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, the permittee shall monitor the pressure drop across the Peabody scrubber. The pressure drop shall be maintained at a minimum of 1.5 inches of water.
  - 1. When the Lime Kiln is operating the pressure drop across the scrubber will be monitored once per 8-hour shift and recorded a minimum of 2 shifts in a 24-hour period (approximately 80%).
  - 2. If one data point recorded in a 24-hour period is below the permitted minimum of 1.5" of water for the pressure drop across the scrubber, all data recorded for that 24-hour period will be averaged. The average pressure drop across the scrubber will be maintained within the permitted minimum.
  - 3. Any 24-hour period that has less than two data recordings or has an average pressure drop below the permitted minimum will be considered a permit violation and shall be reported as one deviation in the Annual Compliance Certification Report.
- 61. Pursuant to \$19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with Specific Condition #60. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes.
- 62. Pursuant to §19.801 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain at least 1200°F for at least 0.5 seconds at all times for gases in the Lime Kiln. The NCG burner at the Lime Kiln is the primary incineration device for non-condensible gases (NCGs).
- 63. Pursuant to \$19.801et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the Lime Kiln is to be operated at all times. If, for any reason, the Lime Kiln is shut down, the date, time, duration of shutdown, and the reason for shutdown will be recorded. Records shall be kept on site and shall be provided to Department personnel upon request. If the shutdown is not categorized as a startup, shutdown, or malfunction, it will contribute to the four percent limit outlined in Specific Condition #64.
- 64. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, periods of excess emissions at the closed-vent system shall not be a violation 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 four percent. Gaylord will not be required to install a backup incinerator as part of the 111d plan as long as Gaylord complies with the MACT standards set forth in 40 CFR Part 63 Subpart S. In the event that the four percent downtime requirement is exceeded, Gaylord will be required to install a backup incineration device within 6 months.

Until such time as Gaylord is in compliance with the MACT standards set forth in 40 CFR Part 63 Subpart S, the permittee shall continue to submit quarterly Progress Reports to the Department. The Progress Reports shall include the total amount of Lime Kiln downtime for the quarter and the resulting amount, in pounds, of TRS emitted.

- 65. Pursuant to \$19.801 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall continue to operate and maintain CEMs which record the TRS concentration of gases leaving the Lime Kiln. The TRS monitors shall be operated in accordance with the requirements of 40 CFR 60.284 (date of installation not withstanding) and the Department Continuous Emission Monitoring Systems Conditions. A copy of the Department Continuous Emission Monitoring Systems Conditions is provided in Appendix A. A copy of \$19.801 et seq of Regulation #19 is provided in Appendix B.
- 66. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.443(d)(4), the permittee shall introduce the LVHC and HVLC HAP emission streams from the closed-vent system into the flame zone of the Lime Kiln or with the primary fuel.
- 67. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.443(e)(3), periods of excess emissions shall not be a violation 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 four percent.

#### SN-41

### Wastewater Treatment Aeration Basin

#### **Source Description**

Effluent from the mill flows through a ditch to a clarifier where solids are allowed to settle. Clarified water flows to the aeration pond where aerators provide agitation and oxygen to the water. Treated water is discharged to the Arkansas River.

The pulping condensate streams from some, but not necessarily all, of the following equipment will be collected in a hard piping system and routed to the Aeration Basin (SN-41) for biological treatment: Multiple Effect Evaporator Hotwell, Turpentine Underflow Standpipe, Blow Heat Accumulator Overflow, and NCG HVLC Condenser Seal Tank.

Emissions are not based on production, throughput, or usage rates. The NCASI Organic Compound Elimination Pathway Model was used to estimate emissions from Gaylord's wastewater treatment aeration basin.

### **Specific Conditions**

68. Pursuant to \$19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table.

Pollutant	lb/hr	ton/yr
VOC		7.0
TRS		231.3

69. Pursuant to \$18.801 of Regulation #18 and A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, the permittee estimates the emission rates in the following table will not be exceeded.

Pollutant	lb/hr	ton/yr
Methanol		6.4
Formaldehyde		0.6

70. Pursuant to \$19.703 of Regulation #19, 40 CFR Part 52, \$18.1003 of Regulation #18, and A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, once every calendar quarter, the permittee shall model emissions from the Aeration Basin to demonstrate compliance with the permitted emission limits. The permittee shall take a 24-hour composite sample of water

entering the Aeration Basin and the sample shall be analyzed for methanol, formaldehyde and total sulfides. The composite sample will consist of a sufficient number of grab samples to accurately characterize the water over a 24-hour period. On the day the composite sample is taken, the permittee shall also record the daily flow rate of the water leaving the Aeration Basin. The concentration and flow data shall be used as inputs for the model. The current physical and operational characteristics of the Aeration Basin shall also be used as model inputs.

The permittee shall maintain records of sample concentration, flow rate data, model results, and total quarterly emissions calculations. Compliance shall be determined using a 4 quarter rolling sum. Records shall be updated by the last day of the month following the calendar quarter, kept on site and provided to Department personnel upon request.

- 71. Pursuant to §19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, §63.446(b), the pulping process condensates from some but not necessarily all of the following equipment shall be sent through a hard piping system and delivered to the Aeration Basin for biological treatment:
  - A. Multiple Effect Evaporator Hotwell;
  - B. Turpentine Underflow Standpipe;
  - C. Blow Heat Accumulator Overflow;
  - D. NCG HVLC Condenser Seal Tank.
- 72. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.446(e)(2), the permittee shall discharge the collected pulping process condensate streams below the liquid surface of the Aeration Basin and treat the pulping process condensates to meet the requirements specified in (A) or (B) below:
  - A. On an individual HAP basis, using the procedures specified in 63.457(l)(1) or (2), either:
    - 1. Reduce methanol by 92 percent or more by weight and reduce acetaldehyde, methyl ethyl ketone (MEK), and propionaldehyde each by 99 percent or more by weight; or
    - 2. Remove 3.3 kilograms or more of methanol per megagram (6.6 pounds per ton) of ODP, remove 0.034 kilograms or more of acetaldehyde per megagram (0.067 pounds per ton) of ODP, remove 0.017 kilograms or more of MEK per megagram (0.034 pounds per ton) of ODP, and remove 0.003 kilograms or more of propionaldehyde per megagram (0.0067 pounds per ton) of ODP.
  - B. On a methanol basis, using the test procedures in 63.457(l)(3) or (4) to determine the additional condensates to be treated, either:
    - 1. Reduce methanol by 92 percent or more by weight; or
    - 2. Remove 3.3 kilograms or more of methanol per megagram (6.6 pounds per ton) of ODP.

- 73. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.453(j)(1) and (2), the permittee shall perform the daily monitoring procedures specified in either (a) or (b) below:
  - A. On a daily basis, monitor the following parameters for the Aeration Basin:
    - 1. Composite daily sample or outlet soluble BOD 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;
    - 5. Liquid temperature;
    - 6. Comply with the monitoring and sampling requirements contained within 63.453(j)(1)(ii).
  - B. As an alternative to the monitoring requirements in part (A) of this condition, conduct daily monitoring of the site-specific parameters established according to the procedures specified in Specific Condition #75.
- 74. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.453(j)(3), the permittee shall conduct a performance test within 45 days after the beginning of each quarter and meet the applicable emission limit outlined in Specific Condition #72.
  - A. The performance test conducted in the first quarter (annually) shall be performed for total HAP and the percent reduction or mass removal obtained from the test shall be at least as great as the total HAP percent reduction or mass removal specified in Specific Condition #72.
  - B. The remaining quarterly performance tests shall be performed for either methanol or total HAP and the percent reduction or mass removal obtained from the test shall be at least as great as the methanol or total HAP percent reduction or mass removal determined in the previous first-quarter test specified in part (A) of this condition..
- 75. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.453(n), to establish or reestablish the value for each operating parameter required to be monitored under Specific Condition #73 and #74, the permittee shall use the following procedures:
  - A. The operating parameter shall be continuously recorded during the initial performance test or any subsequent performance tests;
  - 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 Department's approval the rationale for selecting the monitoring parameters necessary to comply with Specific Condition #73;
- D. Provide for the Department'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.
- 76. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.453(o), operation of the basin in conjunction with the condensate collection system below minimum operation parameter values or above maximum operating parameter values established under Subpart S or failure to perform procedures required shall constitute a violation of the applicable emission standard of this subpart and be reported as a period of excess emissions. Instances where emissions are in excess of the appropriate standard, but are caused by events identified in the mill's Startup, Shutdown, and Malfunction plan (required by 40 CFR Part 63.6), will not be considered in the calculation of periods of excess emissions.
- 77. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.453(p), the permittee shall perform all requirements of 63.453(p)(1) and (2) at any point in which monitoring parameters specified in Specific Condition #73 are below minimum operating parameter values or above maximum operating parameter values.
- 78. Pursuant to §19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, §63.457(c)(1), liquid samples shall be collected using the sampling procedures specified in Method 305 of Part 60, Appendix A, including the following:
  - A. Where feasible, samples shall be taken from an enclosed pipe prior to the liquid stream being exposed to the atmosphere;
  - B. Otherwise, samples shall be collected in a manner to minimize exposure of the sample to the atmosphere and loss of HAP compounds prior to sampling.
- 79. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.457(c)(2), the volumetric flow rate measurements to determine actual mass removal shall be taken at the same time as the concentration measurements.

- 80. Pursuant to §19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, §63.457(c)(3), when gathering liquid samples for HAP analysis, the permittee shall conduct a minimum of three test runs that are representative of normal conditions and average the resulting pollutant concentrations. The minimum sampling time for each test run shall be 1 hour and the grab or composite samples shall be taken at approximately equally spaced intervals over the 1 hour test run period. The owner or operator shall use one of the following procedures to determine total HAP or methanol concentration:
  - A. Method 305 in Appendix A adjusted using the equation contained in 63.457(c)(3)(i); or
  - B. NCASI Method DI/MEOH-94, 02, Methanol in Process Liquids by GC/FID, August 1998, Methods Manual, NCASI, Research Triangle Park, NC, for determining methanol concentrations.
  - C. NCASI Method DI/HAPS-99,01, Selected HAPS in condensates by GC/FID, to analyze methanol, acetaldehyde, methyl ethyl ketone, and propionaldehyde in condensate streams. A copy of EPA approval letter can be found in Appendix F.
- 81. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.457(c)(4), the permittee shall use Method 405.1 of Part 136 to determine soluble BOD in the effluent stream from a biological treatment unit with the modifications contained in 63.457(c)(4)(i) and (ii).
- 82. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.457(c)(5)and (6), the permittee shall perform the procedures contained within 63.457(c)(5) and (6) if the measured concentration HAP in a liquid stream is not detectable.
- 83. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.457(g), the permittee shall measure the total HAP concentration as methanol except as specified in Specific Condition #72.
- 84. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.457(j), compliance for the mass flow rate and mass per megagram of ODP for liquid streams shall be demonstrated by using the equations outlined in 63.457(j)(1) and (2).
- 85. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.457(1), to determine compliance with an open biological treatment system option in Specific Condition #72, the permittee shall comply with 63.457(1)(1) through (5).
- 86. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.457(n), the permittee shall store inlet and outlet grab samples required to be collected in Specific Condition #84 at 4°C (40°F) to minimize the biodegredation of the organic compounds in the sample.

## SN-05 Hog Fuel Boiler

#### **Source Description**

The Hog Fuel Boiler is a 160 million Btu per hour boiler. The boiler is able to burn natural gas and hog fuel. The Hog Fuel Boiler was installed prior to 1976. The boiler has never been modified and is therefore not subject to regulation under NSPS Subpart Db. The boiler is equipped with a scrubber and a cyclone. The scrubber was installed in 1985.

#### **Specific Conditions**

87. Pursuant to \$19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Hourly and annual emission rates set forth in the following table are limited by Specific Conditions #91 and #92.

Pollutant	lb/hr	ton/yr
$PM_{10}$	53.6	234.7
SO <sub>2</sub>	1.1	4.2
VOC	7.1	31.3
СО	197.6	865.2
NO <sub>X</sub>	20.3	82.2
Pb	0.005	0.02

- 88. Pursuant to \$19.503 of Regulation #18 and 40 CFR Part 52 Subpart E, the permittee shall not cause to be discharged to the atmosphere from the Hog Fuel Boiler gases which exhibit an opacity greater than 20%. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A. Compliance with the opacity limit shall be demonstrated by compliance with Specific Condition #89.
- 89. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, daily observations of the opacity from the Hog Fuel Boiler 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, but not necessarily certified, 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 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.

- 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 exceedence 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.
- 90. Pursuant to \$18.801 of Regulation #18 and A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, the permittee estimates the emission rates in the following table will not be exceeded. Hourly and annual emission rates set forth in the following table are limited by Specific Conditions #91 and #92.

Pollutant	lb/hr	ton/yr
PM	53.6	234.7
Acetone	0.1	0.1
Acrolein	0.01	0.01
Arsenic	0.1	0.1
Barium	0.1	0.3
Beryllium	0.1	0.1
Cadmium	0.1	0.1
Chromium +6	0.1	0.1
Copper	0.1	0.1
Formaldehyde	0.1	0.3
Manganese	0.2	0.6
Methanol	0.3	1.0
Phosphorus	0.1	0.2
Silver	0.1	0.1
Zinc	0.1	0.3

- 91. Pursuant to \$19.705 of Regulation #19, \$18.1004 of Regulation #18, A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, and 40 CFR 70.6, natural gas and woodwaste shall be the only fuels used in the Hog Fuel Boiler.
- 92. Pursuant to \$19.705 of Regulation #19, \$18.1004 of Regulation #18, A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, and 40 CFR 70.6, the permittee shall not burn in excess of 10,044 tons of woodwaste per month or 109,500 tons of woodwaste per twelve consecutive months in the Hog Fuel Boiler.
- 93. Pursuant to §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, §18.1004 of Regulation #18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Conditions #91 and #92. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each month's individual data shall by submitted in accordance with General Provision #7.
- 94. Pursuant to \$19.303 of Regulation #19 and A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, the permittee shall monitor the liquor flow rate to the Hog Fuel Boiler (SN-05) scrubber. The flow rate shall be maintained at a minimum of 150 gpm.
  - A. When the Hog Fuel Boiler is operating the scrubber liquid flow rate will be monitored hourly and recorded a minimum of 19 hours in a 24-hour period (approximately 80%).
  - B. If one data point recorded in a 24-hour period is below the permitted minimum of 150 gpm for the liquid flow rate, all data recorded for that 24-hour period will be averaged. The average liquid flow rate for a 24-hour period will be maintained above the permitted minimum.
  - C. Any 24-hour period that has less than 19 hours of recorded data or has an average liquid flow rate below the permitted minimum will be considered a permit violation and shall be reported as one deviation in the Annual Compliance Certification Report.
- 95. Pursuant to \$19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with Specific Condition #94. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes.
- 96. Pursuant to \$19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall test the Hog Fuel Boiler for PM/PM<sub>10</sub> during the first year of each 5-year permit cycle. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 5. Testing shall be used to demonstrate compliance with permitted emission rates.

- 97. Pursuant to \$19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall test the Hog Fuel Boiler for CO during the first year of each 5-year permit cycle. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 10. Testing shall be used to demonstrate compliance with permitted emission rates.
- 98. Pursuant to \$19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall test the Hog Fuel Boiler for NO<sub>x</sub> during the first year of each 5-year permit cycle. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 7E. Testing shall be used to demonstrate compliance with permitted emission rates.

#### **SN-06**

### **Power Boiler**

#### **Source Description**

The Power Boiler is a 80 million Btu per hour boiler which fires solely natural gas. The boiler was installed at Gaylord prior to 1976 and therefore is not subject to regulation under NSPS Subpart Dc.

#### **Specific Conditions**

99. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Hourly and annual emission rates set forth in the following table are limited by Specific Condition #101.

Pollutant	lb/hr	ton/yr
PM <sub>10</sub>	1.1	4.9
SO <sub>2</sub>	0.1	0.5
VOC	0.3	1.4
СО	2.7	11.9
NO <sub>X</sub>	10.7	46.9

- 100. Pursuant to §18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not cause to be discharged to the atmosphere from the Power Boiler gases which exhibit an opacity greater than 5%. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A. Compliance with the opacity limit shall be demonstrated by compliance with Specific Condition #101.
- 101. Pursuant to \$19.705 of Regulation #19, \$18.1004 of Regulation #18, A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, and 40 CFR 70.6, natural gas shall be the only fuel used in the Power Boiler.
- 102. Pursuant to §18.801 of Regulation #1 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Hourly and annual emission rates set forth in the following table are limited by Specific Condition #101.

Pollutant	lb/hr	ton/yr
РМ	1.1	4.9

### SN-50 thru 54 Non-Point Source Emissions

### **Specific Conditions**

103. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Hourly and annual emission rates set forth in the following table are limited by Specific Condition #12.

Source No.	Description	Pollutant	lb/hr	ton/yr
50	Chip and Hogged Fuel	$PM_{10}$		0.1
	Storage Piles	VOC		4.8
51	Saveall Tank	VOC	5.54	19.5 <sup>4</sup>
		TRS	0.1	0.1
52	Outside White Water	VOC	$5.5^{4}$	19.5 <sup>4</sup>
	Chest	TRS	0.1	0.1
53	Landfill	СО		0.2
		VOC		2.1
		TRS		0.1
54	DAF Unit	VOC	5.5 <sup>4</sup>	19.5 <sup>4</sup>
		TRS	0.1	0.1

<sup>4</sup> Includes total methanol (5.2 lb/hr and 18.3 ton/yr) for all paper machine sources (SN-15, 16, 17, 18, 19, 40, 51, 52, 54).

104. Pursuant to \$18.801 of Regulation #18 and A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, the permittee estimates the emission rates in the following table will not be exceeded. Hourly and annual emission rates set forth in the following table are limited by Specific Condition #12.

Source No.	Description	Pollutant	lb/hr	ton/yr
50	Chip and Hogged Fuel Storage Piles	РМ		0.1
51	Saveall Tank	Acetone	0.2	0.5
		Methanol	$5.2^{4}$	18.3 <sup>4</sup>

Source No.	Description	Pollutant	lb/hr	ton/yr					
52 Outside			0.5						
	White Water Chest	Methanol	5.24	18.34					
53	Landfill	Acetone		0.1					
		Acrylonitrile		0.02					
		Benzene		0.1					
		Carbon Disulfide		0.001					
		Carbon Tetrachloride		0.001					
		Carbon Sulfide		0.001					
		Chlorobenzone		0.001					
		Chlorodifluoromethane		0.1					
		Chloroethane		0.01					
		Chloroform		0.001					
			Chloromethane		0.01				
		Dichlorobenzene		0.001					
							Dichlorodifluoromethan	Dichlorodifluoromethane	
		Dichloromethane		0.03					
		Ethane		0.7					
		Ethylbenzene		0.01					
		Hexane		0.02					
		Mercury		0.001					

Source No.	Description	Pollutant	lb/hr	ton/yr
53	Landfill	Methane		169.1
		МЕК		0.02
		MIBK		0.01
		Perchloroethylene		0.1
		Toluene		0.4
		Trichloroethene		0.01
		Vinyl Chloride		0.01
		Xylene		0.03
		1,1,1-Trichloroethane		0.01
		1,1,2,2-Tetrachloroethane		0.01
		1,1,2-Trichloroethane		0.001
		1,1-Dichloroethane		0.01
		1,2-Dichloroethane		0.001
		1,2-Dichloropropane		0.001
54	DAF Unit	Acetone	0.2	0.5
		Methanol	5.2 <sup>4</sup>	18.3 <sup>4</sup>

<sup>4</sup> Includes total methanol (5.2 lb/hr and 18.3 ton/yr) for all paper machine sources (SN-15, 16, 17, 18, 19, 40, 51, 52, 54).

#### SN-100 thru 108 Mid-America Packaging

### **Source Description**

The natural gas fired boiler (SN-100) used at Mid-America is a 1.0 million Btu per hour boiler.

Presses No. 1 and No. 2 are not vented directly to the atmosphere. Emissions from these presses are considered fugitive emissions within the building.

The heat input capacity of the No. 3 Press Tunnel Dryer (SN-102) and the Lacquer Dryer (SN-103) is 1.2 million Btu per hour each. Both the No. 3 Press Dryer and Lacquer Dryer are natural gas fired.

The heat input capacity of the No. 4 Press Between Decks Dryer Vent (SN-104) is 0.4 million Btu per hour. The heat input capacity of the No. 4 Press Tunnel Dryer Vent (SN-105) and the Lacquer Dryer Vent (SN-107) is 1.2 million Btu per hour each. The No. 4 Press Between Decks Dryer, the Tunnel Dryer Vent and the Lacquer Dryer Vent are all natural gas fired.

Mid-America will comply with the Incidental Printing Exemption of NESHAP Subpart KK – National Emission Standards for the Printing and Publishing Industry.

### **Specific Conditions**

105. Pursuant to \$19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table and associated footnotes.

The hourly and annual emission rates from natural gas combustion have been based on maximum capacity. The hourly emission rates from adhesive, ink & ink additives, and lacquer usage have been based on maximum capacity. Compliance with the annual emission rates from adhesive, ink & ink additives, and lacquer usage will be demonstrated by compliance with Specific Condition #107. Compliance with the emission rates for SN-101 will be demonstrated by compliance with Specific Condition #112.

Source No.	Description	Pollutant	lb/hr	ton/yr
100	Natural Gas Fired Boiler	PM <sub>10</sub> SO <sub>2</sub> VOC CO NO <sub>X</sub>	0.1 0.1 0.1 0.1 0.1	0.1 0.1 0.1 0.1 0.5
101	Mixer Hood Exhaust	$PM_{10}$	2.8	6.3
102 thru 108	No. 3 Press (Tunnel Dryer Vent and Lacquer Dryer Vent) No. 4 Press (Between Decks Dryer Vent, Tunnel Blower Vent, Auxiliary Blower Vent, and Lacquer Dryer Vent) General Building Ventilation	PM <sub>10</sub> SO <sub>2</sub> VOC CO NO <sub>x</sub>	0.5 0.5 68.4 0.5 0.9	$\begin{array}{c} 0.5 \\ 0.5 \\ 60.0^1 \\ 0.5 \\ 3.7 \end{array}$

<sup>1</sup> Emissions from natural gas combustion account for 0.5 ton/yr of this total.

106. Pursuant to \$18.801 of Regulation #18 and A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311, the permittee shall not exceed the emission rates set forth in the following table and its associated footnotes.

The hourly and annual emission rates from natural gas combustion have been based on maximum capacity. The hourly emission rates from adhesive, ink & ink additives, and lacquer usage have been based on maximum capacity. Compliance with the annual emission rates from adhesive, ink & ink additives, and lacquer usage will be demonstrated by compliance with Specific Condition #107. Compliance with the emission rates for SN-101 will be demonstrated by compliance with Specific Condition #112.

Source No.	Description	Pollutant	lb/hr	ton/yr
100	Natural Gas Fired Boiler	РМ	0.1	0.1
101	Mixer Hood Exhaust	РМ	2.8	6.3
102	No. 3 Press	РМ	0.5	0.5
thru 108	(Tunnel Dryer Vent and Lacquer Dryer Vent) No. 4 Press (Between Decks Dryer Vent, Tunnel Blower Vent, Auxiliary Blower Vent, and Lacquer Dryer Vent) General Building Ventilation	Acetaldehyde	4.95	5.29 <sup>1</sup>
		Acrylamide	0.011	0.05 <sup>2</sup>
		Ethylene Glycol	11.0	5.29 <sup>1</sup>
		Formaldehyde	1.65	5.29 <sup>1</sup>
		Glycol Ethers	4.5	5.29 <sup>1</sup>
		MIBK	22.53	5.29 <sup>1</sup>
		Vinyl Acetate	3.87	9.49 <sup>2</sup>
		Xylene	47.8	5.29 <sup>1</sup>
		Ammonia	1.92	8.41

<sup>1</sup> The limit for any combination of HAPs applied to product on the flexographic printing presses is 5.29 tons per twelve consecutive months.

<sup>2</sup> The limit for the total combination of HAPs is 24.5 tons per twelve consecutive months, which includes the 5.29 tons per twelve consecutive months total HAPs applied to product on the flexographic presses.

# Gaylord Container Corporation Pine Bluff Mill / Mid-America Packaging Permit #: 385-AOP-R2 CSN: 35-0017 Annual VOC and HAP Emission Rates

107. Pursuant to §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, §18.1004 of Regulation #18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, for SN-102 thru SN-108, the permittee shall calculate total VOC and HAP emission each month based on that month's usage of adhesives, ink & ink additives, and lacquers. Monthly emissions will be compared to the annual limit on a twelve month rolling basis.

#### **Opacity Limits**

- 108. Pursuant to §18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not cause to be discharged to the atmosphere from the Natural Gas Fired Boiler (SN-100), the No. 3 Press Tunnel Dryer Vent (SN-102), the No. 3 Lacquer Dryer Vent (SN-103), the No. 4 Press Between Decks Dryer Vent (SN-104), the No. 4 Press Tunnel Dryer Vent (SN-105) or the No. 4 Press Lacquer Dryer Vent (SN-107) gases which exhibit an opacity greater than 5%. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A. Compliance with the opacity limits shall be demonstrated by compliance with Specific Condition #111.
- 109. Pursuant to §19.503 of Regulation #18 and 40 CFR Part 52 Subpart E, the permittee shall not cause to be discharged to the atmosphere from the Mixer Hood Exhaust (SN-101) gases which exhibit an opacity greater than 20%. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A. Compliance with the opacity limit shall be demonstrated by compliance with Specific Condition #110.
- 110. Pursuant to §19.7 of Regulation #19 and 40 CFR Part 52 Subpart E, weekly observations of the opacity from the Mixer Hood Exhaust shall be conducted by personnel familiar with the permittee's visible emissions. The permittee shall accept such observations for demonstration of compliance. 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 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.
  - 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 exceedence 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.

#### Natural Gas Usage

111. Pursuant to §19.705 of Regulation #19, §18.1004 of Regulation #18, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, natural gas shall be the only fuel used for the Natural Gas Fired Boiler (SN-100), No. 3 Press Tunnel Dryer (SN-102), the No. 3 Press Lacquer Dryer (SN-103), the No. 4 Press Between Decks Dryer Vent (SN-104), the No. 4 Press Tunnel Dryer Vent (SN-105) and the No. 4 Press Lacquer Dryer Vent (SN-107).

#### **Starch Usage**

- 112. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and 40 CFR 70.6, the permittee shall not use in excess of 260,480 pounds of starch per month or 3,124,800 pounds of starch per twelve consecutive months.
- 113. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #112. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each month's individual data shall by submitted in accordance with General Provision #7.

### **NESHAP Subpart KK**

- 114. Mid-America Packaging is subject to and shall comply with applicable provisions of 40 CFR Part 63 Subpart A – General Provisions and 40 CFR Part 63 Subpart KK – National Emission Standards for the Printing and Publishing Industry. A copy of Subpart KK is provided in Appendix D. Applicable provisions include, but are not limited to, the following:
  - A. Pursuant to 40 CFR §63.821(b)(2), the permittee shall apply no more than 881 lb per month, for every month, of organic HAP on product and packaging rotogravure or wide-web flexographic printing presses.
  - B. Pursuant to 40 CFR §63.829(e)(2), the permittee shall maintain records of the total volume and organic HAP content of each material applied on product and packaging rotogravure or wide-web flexographic printing presses during each month.

C. Pursuant to 40 CFR §63.830(b)(1), the permittee shall submit the reports specified to the Administrator: an initial notification required in 40 CFR §63.9(b).

#### HVLC/LVHC Closed-Vent System

#### **Source Description**

40 CFR Part 63, Subpart S requires that Pulp and Paper Mills install a system in which to control Low Volume High Concentration (LVHC) and High Volume Low Concentration (HVLC) gases. Vapors from the following sources are routed through the closed-vent system and sent to the Lime Kiln for incineration:

	Multiple Effect Evaporator Hotwell	
LVHC Gases	Turpentine Condensers	
	Turpentine Decanter	
	Blow Heat Secondary Condenser	
	Foul Condensate Collection Tank	
HVLC Gases	Brownstock Washers	
	Foam Tank	
	Black Liquor Filter	
	Rejects Surge Tank	
	Hot Stock Surge Tank	

Gaylord is currently collecting several sources of LVHC gases. These gases are now and will be fed to the Lime Kiln (SN-01) for treatment. Emissions from the Evaporator Hotwell, Turpentine Decanter, Turpentine Condenser, and Blow Tank Secondary Condenser are currently collected and treated. The Foul Condensate Tank will now be collected and treated as well. Gaylord will collect the gases, send them to a packed tower scrubber to recover sulfur for the process (see Specific Condition #115), and destroy the gases in the Lime Kiln (SN-01).

The First through Forth Stage Washer Hoods are collectively called the Brown Stock Washer System. To comply with the MACT requirements, the HVLC gases will be collected and sent through the NCG HVLC Condenser and then to the NCG HVLC Heater to reduce moisture content, and destroy the gases in the Lime Kiln.

#### **Specific Conditions**

- 115. Pursuant to 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the NCG pre-scrubber shall be operated at all times when LVHC gases are being collected and treated in the Lime Kiln (SN-01) except that the permittee may bypass this scrubber for 200 hours/year for maintenance activities.
- 116. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.443(c), the enclosures and closed-vent system shall meet the requirements specified in \$63.450-Standards For Enclosures and Closed-Vent Systems; \$63.453(k)-Monitoring Requirements; and \$63.454(b)-Recordkeeping Requirements.
  - A. Pursuant to §63.450(b), 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 when necessary to use the opening for sampling, inspection, maintenance, or repairs.
  - B. Pursuant to §63.450(c), each component of the closed-vent system 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).
  - C. Pursuant to §63.450(d), each bypass line in the closed-vent system that could divert vent streams containing HAP to the atmosphere without meeting the emission limitations shall comply with either of the following requirements:
    - 1. 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 the bypass line in such a way as to indicate flow in the bypass line. In loop seals, temperature measurement is an acceptable method of demonstrating gas flow.
    - 2. For bypass line 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.

- 3. Pursuant to §63.453(k), the closed-vent system shall comply with the following requirements:
  - a. Pursuant to §63.453(k)(1), for each enclosure opening, a visual inspection of the closure mechanism shall be performed at least once 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. Pursuant to §63.453(k)(2), each closed-vent system shall be visually inspected every 30 days and at other times as requested by the Administrator. The visual inspection shall include inspection of ductwork, piping, enclosures, and connections to covers for visible evidence of defects.
  - c. Pursuant to §63.453(k)(3), for positive pressure closed-vent systems or portions of closed-vent systems, demonstrate no detectable leaks measured initially and annually by complying with the following procedures found in §63.457(d):
    - (1) Method 21, of Part 60, appendix A;
    - (2) 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;
      - (a) Zero air (less than 10 parts per million by volume of hydrocarbon in air) and;
      - (b) 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. Pursuant to \$63.453(k)(4), demonstrate initially and annually that each enclosure opening is maintained at negative pressure by using one of the following procedures found in \$63.457(e):
    - (1) An anemometer to demonstrate flow into the enclosure opening;
    - (2) Measure the static pressure across the opening;

- (3) Smoke tubes to demonstrate flow into the enclosure opening;
- (4) Any other industrial ventilation test method demonstrated to the Administrator's satisfaction.
- e. Pursuant to §63.453(k)(5), the valve or closure mechanism on each bypass line that is not computer controlled shall be inspected 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. Pursuant to §63.453(k)(6), if an inspection identifies visible defects in ductwork, piping, enclosures or connections to covers, or if an instrument reading of 500 parts per million by volume or greater above background is measured, or if enclosure openings are not maintained at negative pressure, then the following corrective actions shall be taken as soon as practicable:
  - (1) 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.
  - (2) The repair or corrective action shall be completed no later than 15 calendar days after the problem is identified. Delays in corrective repairs beyond 15 calendar days are allowed in cases where the corrective actions or repairs are technically infeasible without a process unit shutdown or where the emissions resulting from immediate repair would be greater than the emissions likely to result from the delay of the repair. Repair of such equipment shall be completed by the end of the next process unit shutdown.
- D. Pursuant to §63.454(b), 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:
  - 1. Date of inspection;
  - 2. The equipment type and identification;
  - 3. Results of negative pressure tests for enclosures;
  - 4. Results of leak detection tests

- 5. The nature of the defect or leak and the method of detection (i.e. visual inspection or instrument detection);
- 6. The date the defect or leak was detected and the date of each attempt to repair the defect or leak;
- 7. Repair methods applied in each attempt to repair the defect or leak;
- 8. The reason for the delay if the defect or leak is not repaired within 15 days after discovery;
- 9. The expected date of successful repair of the defect or leak if the repair is not completed within 15 days;
- 10. The date of successful repair or the defect or leak;
- 11. The position and duration of the opening of bypass line valves and the condition of any valve seals; and
- 12. The duration of the use of bypass valves on computer controlled valves.
- 117. Pursuant to §19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, §63.10(e)(3)(i), an excess emission and continuous monitoring system performance report shall be submitted to the EPA and to the Department semi-annually.

#### **Condensate Collection System**

#### **Source Description**

The Condensate Collection System collects the condensates and recycles them while the gases are sent through a closed system for control. Because the non-condensable gases are sent to closed-vent system (and thus, sent to the Lime Kiln) for control, there are no emissions from this source.

- 118. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.446(b), the pulping process condensates from some but not necessarily all of the following equipment systems shall be treated to meet the requirements set forth in Specific Condition #119 through #127.
  - A. Multiple Effect Evaporator Hotwell;
  - B. Turpentine Underflow Standpipe;
  - C. Blow Heat Accumulator Overflow;
  - D. NCG HVLC Condenser Seal Tank.
- 119. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.446(c)(3), pulping process condensates from equipment systems listed in Specific Condition #118 shall be collected where the total HAP mass is at least 7.2 pounds of total HAP per ton of oven dried pulp. Testing will be performed in accordance with Specific Condition 120.
- 120. Pursuant to §19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, §63.457(a), an initial performance test is required for the condensate collection system in order to demonstrate compliance with Specific Condition #119. The test must be conducted before October 16, 2001. Notification of the test date will be given to the EPA and to the Department within 60 days before the test is scheduled to begin.
- 121. Pursuant to 40 CFR 63.446(d)(1), the collected pulping process condensates shall be conveyed in a closed collection system that is designed and operated to meet the individual drain system requirements specified in 40 CFR 63.960, 63.961, and 63.962 of Subpart RR of this part except closed vent systems and control devices shall be designed and operated in accordance with 40 CFR 63.443(d) and 63.450, instead of in accordance with 40 CFR 63.962(a)(3)(ii), (b)(3)(ii)(A), and (b)(3)(ii)(B)(5)(iii). The closed collection system will meet the specified requirements by being a hard-piped individual drain system per 40 CFR 63.962 (a)(2). The Foul Condensate Collection Tank will be equipped with a water seal per 40 CFR 63.962(b)(2)(i)(A).

- 122. Pursuant to §19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, §63.446(d)(2), the condensate tank located within the closed collection system must meet the following requirements:
  - A. 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 with an instrument reading of less than 500 parts per million above background, and vented into a closed-vent system that meets the requirements of Specific Condition #116 for the HVLC system and routed to a control device that meets the conditions of Specific Condition #66 for the Lime Kiln as a control device.
  - B. 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.
- 123. Pursuant to \$19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, \$63.453(1), the closed condensate system shall meet the requirements specified in \$63.453(a) and (i) CMS Requirements; \$63.453(l)-Monitoring Requirements; and \$63.454(b)-Recordkeeping Requirements.
  - A. Pursuant to §63.453(a) and (i), the permittee shall install, calibrate, certify, operate, and maintain (according to manufacturer's specifications) a continuous monitoring system (CMS) to measure the appropriate parameters that shall be submitted to the Department prior to the initial performance test.
  - B. Pursuant to §63.453(1)(1), the permittee shall conduct a visual inspection of each condensate closed collection system at least every 30 days. The visual inspections shall verify that the appropriate liquid level in the water seal on the Foul Condensate Collection Tank are being maintained and identify any other defects that could reduce water seal control effectiveness. In addition, the permittee shall visually inspect the unburied portion of the collection system piping to verify that no defects are present.
  - C. Pursuant to §63.453(l)(2), the Foul Condensate Collection Tank shall be operated with no detectable leaks as specified in §63.446(d)(2)(i) measured initially and annually by the following procedures specified in §63.457(d):
    - 1. Method 21, of 40 CFR Part 60, Appendix A;

- 2. 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;
  - a. Zero air (less than 10 parts per million by volume of hydrocarbon in air) and;
  - b. 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. Pursuant to §63.453(1)(3), if an inspection required by §63.453(1)(1) identifies visible defects in the closed collection system, or if an instrument reading of 500 parts per million or greater above background is measured, the first efforts at repair of the defect will be no later than 5 calendar days after detection. Repair will be completed as soon as possible but no later than 15 calendar days after detection unless the repair of the defect requires emptying or temporary removal from service of the collection system. The defect will be repaired the next time the process generating the wastewater stops operation. The repair of the defect will be completed before the process resumes operation.
- E. Pursuant to §63.454(b), 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:
  - 1. Date of inspection;
  - 2. The equipment type and identification;
  - 3. Results of negative pressure tests for enclosures;
  - 4. Results of leak detection tests
  - 5. The nature of the defect or leak and the method of detection, i.e. visual inspection or instrument detection;
  - 6. The date the defect or leak was detected and the date of each attempt to repair the defect or leak;
  - 7. Repair methods applied in each attempt to repair the defect or leak;
  - 8. The reason for the delay if the defect or leak is not repaired within 15 days after discovery;
  - 9. The expected date of successful repair of the defect or leak if the repair is not completed within 15 days;
  - 10. The date of successful repair or the defect or leak;
  - 11. The position and duration of the opening of bypass line valves and the condition of any valve seals; and

- 12. The duration of the use of bypass valves on computer controlled valves.
- 124. Pursuant to §19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, a CMS shall be installed and operated in accordance with a compliance schedule for the condensate collection system which will be developed before April 16, 2001. The compliance schedule will outline the appropriate parameters to be monitored and recordkeeping requirements for the CMS system.
- 125. Pursuant to 40 CFR Part 63.453(n), to establish or reestablish the value for each operating parameter required to be monitored under 63.453(l), the permittee shall use the following procedures:
  - A. The operating parameter shall be continuously recorded during the initial performance test or any subsequent performance tests.
  - B. Determination 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 recommendation.
- 126. Pursuant to 40 CFR 63.457(j), the permittee shall use the equations contained within 63.457(j)(1) and (2) to demonstrate compliance with the mass flow rate and mass per megagram ODP requirements for liquid streams specified in 63.446.
- 127. Pursuant to §19.304 of Regulation 19, and 40 CFR Part 63, Subpart S, §63.453(o), operation of the condensate collection system below minimum operation parameter values or above maximum operating parameter values established under Subpart S or failure to perform procedures required shall constitute a violation of the applicable emission standard of this subpart and be reported as a period of excess emissions. Instances where emissions are in excess of the appropriate standard, but are caused by events identified in the mill's Startup, Shutdown, and Malfunction plan (required by 40 CFR part 63.6) will not be considered in the calculation of periods of excess emissions.

# SECTION V: PLANTWIDE CONDITIONS

- Pursuant to §19.704 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the Director shall be notified in writing within thirty (30) days after construction has commenced, construction is complete, the equipment and/or facility is first placed in operation, and the equipment and/or facility first reaches the target production rate.
- 2. Pursuant to \$19.410(B) of Regulation 19, 40 CFR Part 52, Subpart E, the Director may cancel all or part of this permit if the construction or modification authorized herein is not begun within 18 months from the date of the permit issuance if the work involved in the construction or modification is suspended for a total of 18 months or more.
- 3. Pursuant to \$19.702 of Regulation 19 and/or \$18.1002 of Regulation 18 and A.C.A. \$8-4-203 as referenced by A.C.A. \$8-4-304 and \$8-4-311, any equipment that is to be tested, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, shall be tested with the following time frames: (1) Equipment to be constructed or modified shall be tested within sixty (60) days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitted source or (2) equipment already operating shall be tested according to the time frames set forth by the Department. The permittee shall notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. Compliance test results shall be submitted to the Department within thirty (30) days after the completed testing.
- 4. Pursuant to \$19.702 of Regulation 19 and/or \$18.1002 of Regulation 18 and A.C.A. \$8-4-203 as referenced by A.C.A. \$8-4-304 and \$8-4-311, the permittee shall provide:
  - A. Sampling ports adequate for applicable test methods
  - B. Safe sampling platforms
  - C. Safe access to sampling platforms
  - D. Utilities for sampling and testing equipment
- 5. Pursuant to \$19.303 of Regulation 19 and A.C.A. \$8-4-203 as referenced by A.C.A. \$8-4-304 and \$8-4-311, the equipment, control apparatus and emission monitoring equipment shall be operated within their design limitations and maintained in good condition at all times.
- 6. Pursuant to Regulation #26 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, this permit subsumes and incorporates all previously issued air permits for this facility.

- 7. Pursuant to \$18.801 of Regulation #18, the permittee shall not cause or permit the emission of air contaminants, including odors or water vapor and including an air contaminant whose emission is not otherwise prohibited by Regulation #18, if the emission of the air contaminant constitutes air pollution within the meaning of A.C.A. \$8-4-303.
- 8. Pursuant to \$18.901 of Regulation #18, the permittee shall not conduct operations in such a manner as to unnecessarily cause air contaminants and other pollutants from becoming airborne.
- 9. Regulatory references to 40 CFR Part 63 Subpart A and Subpart S in this permit shall apply as promulgated and on the dates specified in the regulation.
- 10. Pursuant to 40 CFR Part 63.6, the permittee shall develop a startup, shutdown, and malfunction (SSM) plan containing operation and maintenance requirements. This plan shall be maintained on site, provided to Department personnel upon request, and submitted to the Department upon completion.
- 11. Pursuant to 40 CFR 63.9, the permittee shall comply with all notification requirements including initial notifications, notification of performance tests, continuous monitoring system performance evaluations, and source compliance status.
- 12. Pursuant to 40 CFR Part 63.10, the permittee shall maintain the following records in order to dmonstrate compliance with the applicable provisions of 40 CFR Part 63, Subpart S. These records shall be maintained on site and provided to Department personnel upon request.
  - A. Startup, Shutdown, Malfunction, and Maintenance records;
  - B. Continuous Monitoring System Records.
- 13. Pursuant to 40 CFR Part 63.10, the permittee shall submit the following reports on a semiannual basis to the Department in order to demonstrate compliance with the applicable provisions of 40 CFR Part 63, Subpart S.
  - A. Excess Emission Reports;
  - B. Monitoring System Performance Reports;
  - C. Startup, Shutdown, and Malfunction Reports.

### **Title VI Provisions:**

- 14. The permittee shall comply with the standards for labeling of products using ozone depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - All containers containing a class I or class II substance stored or transported, all A. 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.
  - The form of the label bearing the required warning must comply with the C. requirements pursuant to §82.110.
  - D. No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 15. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:
  - 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" as defined at §82.152.)
  - Persons owning commercial or industrial process refrigeration equipment must E. comply with leak repair requirements pursuant to §82.156.
  - Owners/operators of appliances normally containing 50 or more pounds of refrigerant F. must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 16. If the permittee manufactures, transforms, 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.
- 17. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant 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 "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger busses using HCFC-22 refrigerant.

18. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program.

# **NESHAP Requirements:**

19. The facility is subject to and shall comply with applicable provisions of 40 CFR Part 63 Subpart S - National Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. A copy of Subpart S is provided in Appendix C.

# **Permit Shield:**

- 20. 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 June 10, 1996 and in additional information dated April 17, 1997 and May 21, 1997, and an application dated August 2, 1999; November 3, 1999; April 17, 2000; and May 5, 2000.

Source	Regulation	Description	
Facility	Arkansas Regulation #19 except as designated in the Compliance Plan below	Regulations of the Arkansas State Implementation Plan for Air Pollution Control	
Facility	Arkansas Regulation #26	Regulations of the Arkansas Operating Permit Program	
Mid-America	40 CFR Part 63 Subpart A	General Provisions	
Mid-America	40 CFR Part 63 Subpart KK	National Emission Standards for the Printing and Publishing Industry	
55	40 CFR Part 60 Subpart A	General Provisions	
55	40 CFR Part 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984	

B. The following requirements have been specifically identified as not applicable, based upon information submitted by the permittee in an application dated June 10, 1996 and in additional information dated April 17, 1997 and May 21, 1997, and an application dated August 2, 1999; November 3, 1999; April 17, 2000; and May 5, 2000.

Description of Regulation	Regulatory Citation	Affected Source	Basis for Determination
National Emission Standards for the Printing and Publishing Industry	40 CFR Part 63 Subpart KK	Pine Bluff Mill	Because the Pulp and Paper mill creates the emitted HAPs as an impurity in the production process, the mill itself is not subject to the regulation (40 CFR §63.820(a)(2)).
Standards of Performance for Kraft Pulp Mills	40 CFR Part 60 Subpart BB	01	pre-1976
Standards of Performance for Kraft Pulp Mills	40 CFR Part 60 Subpart BB	02	pre-1976
Standards of Performance for Kraft Pulp Mills	40 CFR Part 60 Subpart BB	04	pre-1976
Standards of Performance for Kraft Pulp Mills	40 CFR Part 60 Subpart BB	08A and 08B	pre-1976
Standards of Performance for Kraft Pulp Mills	40 CFR Part 60 Subpart BB	13 and 17	pre-1976
Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units	40 CFR Part 60 Subpart Db	05	pre-1976
Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	40 CFR Part 60 Subpart Dc	06	pre-1976

C. Nothing shall alter or affect the following:

Provisions of Section 303 of the Clean Air Act;

The liability of an owner or operator 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 Section 408(a) of the Clean Air Act; or

The ability of the EPA to obtain information under Section 114 of the Clean Air Act.

# SECTION VI: COMPLIANCE PLAN

The permittee has specifically identified the following applicable requirements that the facility is not in compliance with and the proposed means of attaining compliance.

Source	Applicable Requirement	Description	Proposal	Current Status
Facility	§19.8 of Regulation #19	Digesters and Evaporators - efficient incineration of non-condensible gases. The accumulator stack vent is associated with the digesters. The permittee has not been routing the non-condensible gases from the accumulator stack vent to efficient incineration.	By April 16, 2001, the permittee shall have incorporated the accumulator overflow condensates into the Cluster Rule condensate collection and treatment system	The permittee is currently following this plan. Please see Specific Condition #6.

#### SECTION VII: INSIGNIFICANT ACTIVITIES

Pursuant to §26.3(d) of Regulation 26, the following sources are insignificant activities. Insignificant and trivial activities will be allowable after approval and federal register notice publication of a final list as part of the operating air permit program. Any activity for which a state or federal applicable requirement applies is not insignificant even if this activity meets the criteria of §3(d) of Regulation 26 or is listed below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated June 10, 1996 and in additional information dated April 17, 1997, and May 21, 1997.

#### **Pine Bluff Mill Case by Case Determinations**

Air Compressor Diesel Tank #1 Air Compressor Diesel Tank #2 Diesel Fire Pump Tank **Recovery Diesel Tank** Kerosene Tank #1 Kerosene Tank #2 Taxable Diesel Tank Kerosene Truck Tank Portable Kerosene Heaters Sulfuric Acid Storage Tank Causticizers Spent Caustic Storage Tank Air Density Separator Fan Precipitator Mix Tank Woodvard Diesel Tank Unleaded Gasoline Tank **Recovery Boiler General Building Ventilation** 

#### Mid-America Packaging Case by Case Determinations

Use of adhesive to attach backing to plates Use of liquid plastic to make forms for transferring paste to paper

Pursuant to §26.3(d) of Regulation 26, the following emission units, operations, or activities have been determined by the Department to be insignificant activities. Activities included in this list are allowable under this permit and need not be specifically identified.

- 1. Combustion emissions from propulsion of mobile sources and emissions from refueling these sources unless regulated by Title II and required to obtain a permit under Title V of the federal Clean Air Act, as amended. This does not include emissions from any transportable units, such as temporary compressors or boilers. This does not include emissions from loading racks or fueling operations covered under any applicable federal requirements.
- 2. Air conditioning and heating units used for comfort that do not have applicable requirements under Title VI of the Act.
- 3. Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manufacturing/industrial or commercial process.
- 4. Non-commercial food preparation or food preparation at restaurants, cafeterias, or caterers, etc.
- 5. Consumer use of office equipment and products, not including commercial printers or business primarily involved in photographic reproduction.
- 6. Janitorial services and consumer use of janitorial products.
- 7. Internal combustion engines used for landscaping purposes.
- 8. Laundry activities, except for dry-cleaning and steam boilers.
- 9. Bathroom/toilet emissions.
- 10. Emergency (backup) electrical generators at residential locations.
- 11. Tobacco smoking rooms and areas.
- 12. Blacksmith forges.
- 13. Maintenance of grounds or buildings, including: lawn care, weed control, pest control, and water washing activities.
- 14. Repair, up-keep, maintenance, or construction activities not related to the sources' primary business activity, and not otherwise triggering a permit modification. This may include, but is not limited to such activities as general repairs, cleaning, painting, welding, woodworking, plumbing, re-tarring roofs, installing insulation, paved/paving parking lots, miscellaneous

solvent use, application of refractory, or insulation, brazing, soldering, the use of adhesives, grinding, and cutting.<sup>1</sup>

- 15. Surface-coating equipment during miscellaneous maintenance and construction activities. This activity specifically does not include any facility whose primary business activity is surface-coating or includes surface-coating or products.
- 16. Portable electrical generators that can be "moved by hand" from one location to another.<sup>2</sup>
- 17. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning, or machining wood, metal, or plastic.
- 18. Brazing or soldering equipment related to manufacturing activities that do not result in emission of HAPs.<sup>3</sup>
- 19. Air compressors and pneumatically operated equipment, including hand tools.
- 20. Batteries and battery charging stations, except at battery manufacturing plants.
- 21. Storage tanks, vessels, and containers holding or storing liquid substances that do not contain any VOCs or HAPs.<sup>4</sup>
- 22. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and no volatile aqueous salt solutions, provided appropriate lids and covers are used and appropriate odor control is achieved.

<sup>&</sup>lt;sup>1</sup> Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must get a permit.

<sup>&</sup>lt;sup>2</sup> "Moved by hand" means that it can be moved by one person without assistance of any motorized or non-motorized vehicle, conveyance, or device.

<sup>&</sup>lt;sup>3</sup> Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals are more appropriate for treatment as insignificant activities based on size or production thresholds. Brazing, soldering, and welding equipment, and cutting torches related directly to plant maintenance and upkeep and repair or maintenance shop activities that emit HAP metals are treated as trivial and listed separately in this appendix.

<sup>&</sup>lt;sup>4</sup> Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids are based on size and limits including storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.

- 23. Equipment used to mix and package soaps, vegetable oil, grease, animal fat, and non-volatile aqueous salt solutions, provided appropriate lids and covers are used and appropriate odor control is achieved.
- 24. Drop hammers or presses for forging or metalworking.
- 25. Equipment used exclusively to slaughter animals, but not including other equipment at slaughter-houses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
- 26. Vents from continuous emissions monitors and other analyzers.
- 27. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
- 28. Hand-held applicator equipment for hot melt adhesives with no VOCs in the adhesive.
- 29. Lasers used only on metals and other materials which do not emit HAPs in the process.
- 30. Consumer use of paper trimmers/binders.
- 31. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
- 32. Salt baths using non-volatile salts that do not result in emissions of any air pollutant covered by this regulation.
- 33. Laser trimmers using dust collection to prevent fugitive emissions.
- 34. Bench-scale laboratory equipment used for physical or chemical analysis not including lab fume hoods or vents.
- 35. Routine calibration and maintenance of laboratory equipment or other analytical instruments.
- 36. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
- 37. Hydraulic and hydrostatic testing equipment.
- 38. Environmental chambers not using hazardous air pollutant gases.

- 39. Shock chambers, humidity chambers, and solar simulators.
- 40. Fugitive emissions related to movement of passenger vehicles, provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
- 41. Process water filtration systems and demineralizers.
- 42. Demineralized water tanks and demineralizer vents.
- 43. Boiler water treatment operations, not including cooling towers.
- 44. Emissions from storage or use of water treatment chemicals, except for hazardous air pollutants or pollutants listed under regulations promulgated pursuant to Section 112(r) of the Act, for use in cooling towers, drinking water systems, and boiler water/feed systems.
- 45. Oxygen scavenging (de-aeration) of water.
- 46. Ozone generators.
- 47. Fire suppression systems.
- 48. Emergency road flares.
- 49. Steam vents and safety relief valves.
- 50. Steam leaks.
- 51. Steam cleaning operations.
- 52. Steam and microwave sterilizers.
- 53. Site assessment work to characterize waste disposal or remediation sites.
- 54. Miscellaneous additions or upgrades of instrumentation.
- 55. Emissions from combustion controllers or combustion shutoff devices but not combustion units itself.

- 56. Use of products for the purpose of maintaining motor vehicles operated by the facility, not including air cleaning units of such vehicles (i.e. antifreeze, fuel additives).
- 57. Stacks or vents to prevent escape of sanitary sewer gases through the plumbing traps.
- 58. Emissions from equipment lubricating systems (i.e. oil mist), not including storage tanks, unless otherwise exempt.
- 59. Residential wood heaters, cookstoves, or fireplaces.
- 60. Barbecue equipment or outdoor fireplaces used in connection with any residence or recreation.
- 61. Log wetting areas and log flumes.
- 62. Periodic use of pressurized air for cleanup.
- 63. Solid waste dumpsters.
- 64. Emissions of wet lime from lime mud tanks, lime mud washers, lime mud piles, lime mud filter and filtrate tanks, and lime mud slurry tanks.
- 65. Natural gas odoring activities unless the Department determines that emissions constitute air pollution.
- 66. Emissions from engine crankcase vents.
- 67. Storage tanks used for the temporary containment of materials resulting from an emergency reporting of an unanticipated release.
- 68. Equipment used exclusively to mill or grind coatings in roll grinding rebuilding, and molding compounds where all materials charged are in paste form.
- 69. Mixers, blenders, roll mills, or calenders for rubber or plastic for which no materials in powder form are added and in which no organic solvents, diluents, or thinners are used.
- 70. The storage , handling, and handling equipment for bark and wood residues not subject to fugitive dispersion offsite (this applies to the equipment only).

- 71. Maintenance dredging of pulp and paper mill surface impoundments and ditches containing cellulosic and cellulosic derived biosolids and inorganic materials such as lime, ash, or sand.
- 72. Tall oil soap storage, skimming, and loading.
- 73. Water heaters used strictly for domestic (non-process) purposes.
- 74. Facility roads and parking areas, unless necessary to control offsite fugitive emissions.
- 75. Agricultural operations, including onsite grain storage, not including IC engines or grain elevators.
- 76. The following natural gas and oil exploration production site equipment: separators, dehydration units, natural gas fired compressors, and pumping units. This does not include compressors located on natural gas transmission pipelines.

#### SECTION VIII: GENERAL PROVISIONS

- Pursuant to 40 C.F.R. 70.6(b)(2), 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 was adopted pursuant to Control & Ecology Commission Regulation 18 or 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 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.
- 2. Pursuant to 40 C.F.R. 70.6(a)(2) and §26.7 of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26), 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.
- 3. Pursuant to §26.4 of Regulation #26, it is the duty of the permittee to submit a complete application for permit renewal at least six (6) months prior to the date of permit expiration. Permit expiration terminates the permittee's right to operate unless a complete renewal application was submitted at least six (6) months prior to permit expiration, in which case the existing permit shall 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.
- 4. Pursuant to 40 C.F.R. 70.6(a)(1)(ii) and §26.7 of Regulation #26, 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, both provisions are incorporated into the permit and shall be enforceable by the Director or Administrator.
- 5. Pursuant to 40 C.F.R. 70.6(a)(3)(ii)(A) and §26.7 of Regulation #26, records of monitoring information required by this permit shall include the following:
  - A. The date, place as defined in this permit, and time of sampling or measurements;
  - B. The date(s) analyses were performed;
  - C. The company or entity that performed 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. Pursuant to 40 C.F.R. 70.6(a)(3)(ii)(B) and §26.7 of Regulation #26, records of all required monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, 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.
- 7. Pursuant to 40 C.F.R. 70.6(a)(3)(iii)(A) and §26.7 of Regulation #26, the permittee shall submit reports of all required monitoring every 6 months. If no other reporting period has been established, the reporting period shall end on the last day of the anniversary month of this permit. The report shall be due within 30 days of the end of the reporting period. Even though the reports are due every six months, each report shall contain a full year of data. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official as defined in §26.2 of Regulation #26 and must be sent to the address below.

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

- 8. Pursuant to 40 C.F.R. 70.6(a)(3)(iii)(B), §26.7 of Regulation #26, and §19.601 and 19.602 of Regulation #19, all deviations from permit requirements, including those attributable to upset conditions as defined in the permit shall be reported to the Department. An initial report shall be made to the Department by the next business day after 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 which is 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.

A full report shall be made in writing to the Department within five (5) business days of discovery of the occurrence and shall include in addition to the information required by initial report a schedule of actions to be taken to eliminate future occurrences and/or to minimize the amount by which the permits limits are exceeded and to reduce the length of time for which said limits are exceeded. If the permittee wishes, they 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 such report will serve as both the initial report and full report.

- 9. Pursuant to 40 C.F.R. 70.6(a)(5) and §26.7 of Regulation #26, and A.C.A.§8-4-203, as referenced by §8-4-304 and §8-4-311, if any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity shall 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.
- 10. Pursuant to 40 CFR Part 63.6, the permittee shall develop a startup, shutdown, and malfunction (SSM) plan containing operation and maintenance requirements. This plan shall be maintained on site, provided to the Department upon request, and submitted to the Department upon completion.
- Pursuant to 40 CFR Part 63.10, the permittee shall maintain the following records in order to demonstrate compliance with the applicable provisions of 40 CFR Part 63, Subpart S. These records shall be maintained on site and provided to Department personnel upon request:
  - A. Startup, shutdown, malfunction, and maintenance records;
  - B. Continuous monitoring system records.
- 12. Pursuant to 40 CFR Part 63.10, the permittee shall submit the following reports on a semiannual basis to the Department in order to demonstrate compliance with the applicable provisions of 40 CFR Part 63, Subpart S:
  - A. Excess emission reports;
  - B. Monitoring system performance reports;
  - C. Startup, shutdown, malfunction reports.
- 13. Pursuant to 40 C.F.R. 70.6(a)(6)(i) and §26.7 of Regulation #26, 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, or modification; or for denial of a permit renewal application. Any permit noncompliance with a state requirement constitutes a violation of the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*) and is also grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit state requirement constitutes a violation of the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*) and is also grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

- 14. Pursuant to 40 C.F.R. 70.6(a)(6)(ii) and §26.7 of Regulation #26, 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 in order to maintain compliance with the conditions of this permit.
- 15. Pursuant to 40 C.F.R. 70.6(a)(6)(iii) and §26.7 of Regulation #26, this permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- 16. Pursuant to 40 C.F.R. 70.6(a)(6)(iv) and §26.7 of Regulation #26, this permit does not convey any property rights of any sort, or any exclusive privilege.
- 17. Pursuant to 40 C.F.R. 70.6(a)(6)(v) and §26.7 of Regulation #26, the permittee shall 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 shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the permittee may be required to furnish such records directly to the Administrator along with a claim of confidentiality.
- 18. Pursuant to 40 C.F.R. 70.6(a)(7) and §26.7 of Regulation #26, the permittee shall pay all permit fees in accordance with the procedures established in Regulation #9.
- 19. Pursuant to 40 C.F.R. 70.6(a)(8) and §26.7 of Regulation #26, no permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for elsewhere in this permit.
- 20. Pursuant to 40 C.F.R. 70.6(a)(9)(i) and §26.7 of Regulation #26, if the permittee is allowed to operate under 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 scenario under which the facility or source is operating.

- 21. Pursuant to 40 C.F.R. 70.6(b) and §26.7 of Regulation #26, all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Act unless the Department has specifically designated as not being federally enforceable under the Act any terms and conditions included in the permit that are not required under the Act or under any of its applicable requirements.
- 22. Pursuant to 40 C.F.R. 70.6(c)(1) and §26.7 of Regulation #26, any document (including reports) required by this permit shall contain a certification by a responsible official as defined in §26.2 of Regulation #26.
- 23. Pursuant to 40 C.F.R. 70.6(c)(2) and §26.7 of Regulation #26, the permittee shall allow an authorized representative of the Department, upon presentation of credentials, to perform the following:
  - 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 that must be kept 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 the purpose of assuring compliance with this permit or applicable requirements.
- 24. Pursuant to 40 C.F.R. 70.6(c)(5) and §26.7 of Regulation #26, the permittee shall submit a compliance certification with terms and conditions contained in the permit, including emission limitations, standards, or work practices. This compliance certification shall be submitted annually and shall be submitted to the Administrator as well as to the Department. All compliance certifications required by this permit shall include the following:
  - 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;
  - 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; and

- E. Such other facts as the Department may require elsewhere in this permit or by \$114(a)(3) and 504(b) of the Act.
- 25. Pursuant to §26.7 of Regulation #26, nothing in this permit shall alter or affect the following:
  - A. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
  - B. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
  - C. The applicable requirements of the acid rain program, consistent with §408(a) of the Act; or
  - D. The ability of EPA to obtain information from a source pursuant to §114 of the Act.
- 26. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this permit authorizes only those pollutant emitting activities addressed herein.

**APPENDIX** A

**APPENDIX B** 

**APPENDIX C** 

**APPENDIX D** 

# **APPENDIX E**

# **APPENDIX F**