

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0597-AOP-R27 AFIN: 02-00013

1. PERMITTING AUTHORITY:

Division of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

2. APPLICANT:

Georgia-Pacific Crossett LLC
100 Mill Supply Road
Crossett, Arkansas 71635

3. PERMIT WRITER:

Shawn Hutchings

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Paper (except Newsprint) Mills
NAICS Code: 322121

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
3/18/2024	Renewal	Only emission factor changes.
6/13/2025	AA	Removed sources
8/6/2025	Minor Modification	SN-50 modified
8/18/2025	AA	New Insignificant Activity
8/22/2025	Minor Modification	SN-147 New source

6. REVIEWER'S NOTES:

The Georgia-Pacific Crossett LLC operates a facility (the facility or the mill) located at 100 Mill Supply Road, Crossett, Arkansas 71635. The facility operates equipment and processes that support the production of consumer bath tissue on four tissue machines and associated tissue converting lines. This permit was the Title V renewal for the facility and included two administrative amendments and two minor modifications also.

SN-119 and SN-120 were removed from the permit. Insignificant activities list has been updated. SN-75, was renamed as “Stock Storage”. Emission factors and/or throughput for the Stock Storage, Tissue Machines, Wastewater Treatment System, Roads, and Landfills were updated to reflect the removal of pulp manufacturing. Ammonia, hydrogen chloride, and hydrogen fluoride emissions were added to the natural gas combustion sources. The scrubber for SN-50 was replaced and two new converting machines were added as SN-147.

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

There are no known enforcement actions against the facility.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
If yes, were GHG emission increases significant? N

b) Is the facility categorized as a major source for PSD? Y

- *Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list*

If yes for 8(b), explain why this permit modification is not PSD. Emissions were below modification thresholds.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
SN-18 and SN-19	HAP	NESHAP Subpart DDDDD
SN-111, SN-112, SN-113, and SN-141	HAP	NESHAP Subpart JJJJ
SN-115, SN-116, SN-117, and SN-118	HAP	NESHAP Subpart ZZZZ

10. UNCONSTRUCTED SOURCES:

Unconstructed Source	Permit Approval Date	Extension Requested Date	Extension Approval Date	If Greater than 18 Months without Approval, List Reason for Continued Inclusion in Permit
N/A				

11. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? N

(Note - permit shields are not allowed to be added, but existing ones can remain, for minor modification applications or any 8 CAR pt. 40 requirement.)

12. COMPLIANCE ASSURANCE MONITORING (CAM) – TITLE V PERMITS ONLY:

List sources potentially subject to CAM because they use a control device to achieve compliance and have pre-control emissions of at least 100 percent of the major source level. List the pollutant of concern and a brief summary of the CAM plan (temperature monitoring, CEMs, opacity monitoring, etc.) and frequency requirements of § 64.

Source	Pollutant Controlled	Cite Exemption or CAM Plan Monitoring and Frequency
50	PM/PM ₁₀ /PM _{2.5}	Scrubber Parameters 300 or 400 gpm/6 or 4.47 in H ₂ O - Old Scrubber and New
81	PM/PM ₁₀ /PM _{2.5}	Scrubber Parameters 400 gpm/4.47 in H ₂ O
54	PM/PM ₁₀ /PM _{2.5}	Precontrol below 100%
52	PM/PM ₁₀ /PM _{2.5}	Precontrol below 100%
146	PM/PM ₁₀ /PM _{2.5}	Precontrol below 100%

13. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

14. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the DEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

The non-criteria pollutants listed below were evaluated. Based on Division of Environmental Quality procedures for review of non-criteria pollutants, emissions of all other non-criteria pollutants are below thresholds of concern.

1st Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Division of Environmental Quality has deemed the PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m^3), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = $0.11 \times \text{TLV}$	Proposed lb/hr	Pass?
Acetaldehyde	45.04	4.9544	1.67	Yes
Hydrogen Fluoride	0.41	0.0451	0.09	NO
Manganese	0.2	0.022	0.07	NO

2nd Tier Screening (PAIL)

AERMOD air dispersion modeling was performed on the estimated hourly emissions from the following sources, in order to predict ambient concentrations beyond the property boundary. The Presumptively Acceptable Impact Level (PAIL) for each compound has been deemed by the Division of Environmental Quality to be one one-hundredth of the Threshold Limit Value as listed by the ACGIH.

Pollutant	PAIL ($\mu\text{g}/\text{m}^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
Hydrogen Fluoride	4.1	0.0032	Yes
Manganese	2	0.00013	Yes

c) H₂S Modeling:

A.C.A. §8-3-103 requires hydrogen sulfide emissions to meet specific ambient standards. Many sources are exempt from this regulation, refer to the Arkansas Code for details.

Is the facility exempt from the H₂S Standards

N

If exempt, explain: N/A

These results are from prior permits. H₂S emissions are lower now.

Pollutant	Threshold value	Modeled Concentration (ppb)	Pass?
H ₂ S	20 parts per million (5-minute average*)	16.42	Yes
	80 parts per billion	5.06	Yes

Pollutant	Threshold value	Modeled Concentration (ppb)	Pass?
	(8-hour average) residential area		
	100 parts per billion (8-hour average) nonresidential area	5.06	Yes

*To determine the 5-minute average use the following equation

$$C_p = C_m (t_m/t_p)^{0.2} \text{ where}$$

C_p = 5-minute average concentration

C_m = 1-hour average concentration

t_m = 60 minutes

t_p = 5 minutes

15. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
18,19	NG-AP42 Sec 1.4	PM/PM ₁₀ SO ₂ NO _x Pb CO VOC	lb/MMscf 7.6 0.6 280 0.0005 84 5.5		A 20% safety factor has been applied to all factors/ SN-19 = 357 MMBTU SN-18 = 220 MMBTU
35	NOCEPM model Mass Balance Model developed by NCASI, 2010	VOC 151783 lb/yr TRS 515635.5 lb/yr			
47	BACT limits, AP-42, Sec 1.4, and testing	PM/PM ₁₀ = 0.0164 lb/MMBTU SO ₂ = 0.0007 lb/MMBTU VOC = 0.0564 lb/MMBTU CO = 0.2142 lb/MMBTU NO _x = 0.0913 lb/MMBTU			21 MMBTU/hr

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		Pb = 0.0005 lb/MMscf			
48	BACT limits, AP-42, Sec 1.4, and testing	PM/PM ₁₀ = 0.07 lb/ADTFP SO ₂ = 0.0007 lb/MMBTU VOC = 0.0066 lb/MMBTU CO = 0.1139 lb/MMBTU NO _x = 0.0913 lb/MMBTU Pb = 0.0005 lb/MMscf			41 MMBTU/hr 284 ADTFP/day
49	BACT limits, AP-42, Sec 1.4, and testing	PM/PM ₁₀ = 0.07 lb/ADTFP SO ₂ = 0.6 lb/MMscf VOC = 5.5 lb/MMscf CO = 84 lb/MMscf NO _x = 100 lb/MMscf Pb = 0.0005 lb/MMscf			41 MMBTU/hr 263 ADTFP/day
79	BACT limits, AP-42, Sec 1.4, and testing	PM/PM ₁₀ = 0.0343 lb/ADTFP SO ₂ = 0.0007 lb/MMBTU VOC = 0.0192 lb/MMBTU CO = 0.15 lb/MMBTU NO _x = 0.0913 lb/MMBTU Pb = 0.0005 lb/MMscf			41 MMBTU/hr 266.4 ADTFP/day CO BACT limit based on 0.5 lb/MMBtu from the burners and 0.10 lb/MMBtu from the process emissions
75 D-I	NCASI TB 1020 Table 4.3 NCASI Air Toxics Database	VOC = 4.84 lb/hr/tank TRS = 0.533 lb/hr/tank 6 Tanks in all			
81 & 50	Manufacturer's specs	PM, SN-81=0.0035 gr/scf			

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments		
		PM, SN-50 = 0.46 lb/hr					
68, 69, 70, & 80	Stack testing (PM ₁₀) Mass balance for VOC	SN-68, 69, and 70: PM ₁₀ = 0.1923 (lb/ADTFP) SN-80: PM ₁₀ = 0.1271 (lb/ADTFP) VOC ₆₈ = 3.37 VOC ₆₉ = 2.48 VOC ₇₀ = 1.78 VOC ₈₀ = 1.29 (lb/ADTFP)			0.95 MDT = 1 ADTFP SN-68 = 97 MDT/day SN-69 = 270 MDT/day SN-70 = 250 MDT/day SN-80 = 253.1 MDT/day		
78F	AP 42 13.2.1 & 13.2.2	By calculation					
82F	LandGEM estimated emission rate (2021)	VOC = 0.83 tpy However, permitted VOC set equal to Total HAPs					
93	Stack Testing (PM ₁₀) NCASI TB 649, Eq 7 (VOC)	0.07 lb PM ₁₀ /hr/repulper 0.073 lb VOC/ton broke However, permitted VOC set equal to Total HAPs			3 Repulpers 270 ton/broke/day		
111, 112, 113	VOC content and MSDS records	VOC = 0.17 lb/MDT			253.1 MDT/day		
115-118	AP-42, Table 3.3-1 and Table 3.3-2. (diesel)	PM ₁₀ SO ₂ VOC CO NO _x	lb/hp-hr 0.0022 0.00205 0.00251 0.00668 0.031		Source 115 116 117 118	HP 420 420 420 138	
115ct, 116ct, 117 ct, & 144	Manufacturer's specs	6.3 lb/Mgal	Drift eliminators		115ct 116ct 117ct 123 144	gpm 12,500 12,500 12,500 15,000 4,836	drift rate 0.001% 0.001% 0.001% 0.001% 0.0005%

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
141 147	VOC content/glue usage	VOC = 1.7E-01 lb/MDT			790 MDT/day 47450 MDT/day
142 & 143	VOC content/material usage	VOC = 2.3E-01 lb/MDT			40,000 MDT/yr
145	AP-42 Table 1.4-1 and 1.4-2	PM/PM ₁₀ = 7.6 lb/MMscf SO ₂ = 0.6 lb/MMscf VOC = 5.5 lb/MMscf CO = 84 lb/MMscf NO _x = 100 lb/MMscf Pb = 0.0005 lb/MMscf			3.00 MMBtu/hr 1,020 Btu/scf 8760 hr/yr

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
47 & 48	NO _x	7E	5 yr	BACT
	CO	10		
79	NO _x	7E	5 yr	BACT
	CO	10	Within 180 days of issuance of Permit 0597-AOP-R18, and every 12 months thereafter	
81	PM/PM ₁₀	5 with backhalf	5 yr	BACT and confirm CAM parameters

17. MONITORING OR CEMS:

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
52, 54, 50, 81, 146	Scrubber parameters	Flowmeter and/or pressure gauge	Daily	N

18. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
68	Paper Production	97 machine dried tons of paper per day	Daily	Y
	VOC emissions	57 ton/yr		
	BACT limit	3.37 lb/ADTFP		
69	Paper Production	270 machine dried tons of paper per day	Daily	Y
	VOC emissions	116.8 ton/yr		
	BACT limit	2.48 lb/ADTFP		
70	Paper Production	250 machine dried tons of paper per day	Daily	Y
	VOC emissions	77.4 ton/yr		
	BACT limit	1.78 lb/ADTFP		
79	SSM events	Information outlined in General Provision 8 and Specific Condition #46 (R23)	As necessary	Y
	Maintenance and inspection activities	Information outlined in Specific Condition #47 (R23)	As necessary	N
80	Paper Production	253.1 machine dried tons of paper per day	Daily	Y
	VOC emissions	59.6 ton/yr		
	BACT limit	1.29 lb/ADTFP		

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
93	Broke	270 tons/day of broke	Daily	Y
111,112,113,	VOC	7.9 ton/yr	Monthly	Y
115ct,116ct,117ct, & 144	TDS	750 mg/L	Monthly	N
115-118	Hours of operation	500 hours per rolling 12 month period	Monthly	Y
141	VOC	24.6 ton/yr	Monthly	Y
145	NESHAP DDDDD Records	N/A	As necessary	N

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
18,19	5%	Departmental Guidance	Use of NG
47,54,48, 52,49,50,79,81	5%	Departmental Guidance	Weekly observations or use of NG for fuel burning sources
68,69,70,80	0%	Departmental Guidance	Weekly Yes/No check outside building
93			
115 through 118	20%	Rule 19	Daily observations once use exceeds 24-hrs
145	5%	Departmental Guidance	Use of NG
146	5%	Departmental Guidance	Weekly observations

20. DELETED CONDITIONS:

Former SC	Justification for removal
41 and 42	Combined into 40
59	CO testing moved into NOx testing condition.

21. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
REYSMA Tissue Mill Cooling Tower	A-13	0.0166						
Core Joiner	A-13			0.36			0.038	0.038
Repulper C2	A-13	0.36792						
Repulper D	A-13	0.36792						
Repulper No. 5	A-13	0.36792						
Repulper No. 6	A-13	0.36792						
Total A-13		1.126		0.36			0.038	0.038
Diesel Fuel Tank	A-3			0.00470				
Total A-3				0.00470				

22. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
0597-AOP-R26

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Georgia-Pacific Crossett LLC

Permit #: 0597-AOP-R27

AFIN: 02-00013

\$/ton factor	28.14	Annual Chargeable Emissions (tpy)	1414.86
Permit Type	Modification	Permit Fee \$	1000

Minor Modification Fee \$ 500

Minimum Modification Fee \$ 1000

Renewal with Minor Modification \$ 500

Check if Facility Holds an Active Minor Source or Minor Source General Permit ☐

If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$ 0

Total Permit Fee Chargeable Emissions (tpy) -482.59

Initial Title V Permit Fee Chargeable Emissions (tpy)

HAPs not included in VOC or PM:

Chlorine, Hydrazine, HCl, HF, Methyl Chloroform, Methylene Chloride, Phosphine, Tetrachloroethylene, Titanium Tetrachloride

Air Contaminants:

All air contaminants are chargeable unless they are included in other totals (e.g., H2SO4 in condensible PM, H2S in TRS, etc.)

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
PM		162.3	119.3	-43	-43	119.3
PM ₁₀		100.8	90.7	-10.1		
PM _{2.5}		77.9	76.6	-1.3		
SO ₂		3.8	3.6	-0.2	-0.2	3.6
VOC		689.9	391.1	-298.8	-298.8	391.1
CO		334.4	334.1	-0.3		
NO _x		899.7	898.5	-1.2	-1.2	898.5
Lead	<input type="checkbox"/>	0.07	0.07	0		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Total HAPs	<input type="checkbox"/>	158.91	37.36	-121.55		
Acetaldehyde	<input type="checkbox"/>	2.12	19.35	17.23		
Arsenic	<input type="checkbox"/>	0.07	0.07	0		
Benzene	<input type="checkbox"/>	0.29	0.18	-0.11		
Biphenyl	<input type="checkbox"/>	0	1.22	1.22		
Cadmium	<input type="checkbox"/>	0.07	0.07	0		
Carbon Disulfide	<input type="checkbox"/>	0.64	0.32	-0.32		
Chloroform	<input type="checkbox"/>	5.12	4.47	-0.65		
Chromium (III)	<input type="checkbox"/>	0.07	0.07	0		
Cobalt	<input type="checkbox"/>	0.07	0.07	0		
Diethylene Glycol	<input type="checkbox"/>	0	0.69	0.69		
Ethyl Benzene	<input type="checkbox"/>	0.09	0.04	-0.05		
Ethylene Glycol	<input type="checkbox"/>	0	0.69	0.69		
Formaldehyde	<input type="checkbox"/>	0.39	1.75	1.36		
Hexane	<input type="checkbox"/>	6.7	6.7	0		
Hydrogen Chloride	<input checked="" type="checkbox"/>	0	0.23	0.23	0.23	0.23
Hydrogen Fluoride	<input checked="" type="checkbox"/>	0	0.18	0.18	0.18	0.18
Hydrogen Sulfide***	<input checked="" type="checkbox"/>	141.01	0.01	-141	-141	0.01
Manganese	<input type="checkbox"/>	0.07	0.09	0.02		
Mercury	<input checked="" type="checkbox"/>	0.07	0.07	0	0	0.07
Methanol	<input type="checkbox"/>	132.36	8.27	-124.09		
Methylene Chloride	<input checked="" type="checkbox"/>	0.42	1.39	0.97	0.97	1.39
Naphthalene	<input type="checkbox"/>	0.34	0.41	0.07		
Nickel	<input type="checkbox"/>	0.07	0.07	0		
Phenol	<input type="checkbox"/>	1.71	2.07	0.36		
POM	<input type="checkbox"/>	0.34	0.11	-0.23		
Propionaldehyde	<input type="checkbox"/>	1.64	1.52	-0.12		
Toluene	<input type="checkbox"/>	0.83	1.06	0.23		

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