

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1803-AOP-R3 AFIN: 07-00212

1. PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality
8001 National Drive
Little Rock, Arkansas 72219-8913

2. APPLICANT:

Georgia-Pacific Oriented Strandboard Facility
#1 Georgia-Pacific Road
Fordyce, Arkansas 71742

3. PERMIT WRITER:

Michael H. Watt

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Reconstituted Wood Product Manufacturing
NAICS Code: 321219

5. SUBMITTALS:

July 25, 2003, December 8, 2003

6. REVIEWER'S NOTES:

This modification makes the following changes:

1. Reduces the required frequency of emissions testing for the Dryers and Press (SN-01 and SN-02) from once every year to once every five years based on past demonstrations of compliance,
2. Adds the emissions associated with natural gas usage in the thermal oil system when the emissions are exhausted out of the bypass stacks (SN-01A),
3. Updates the HAP hourly and annual emission rates based on the most current AP-42 emission factors and stack testing results,
4. Added the CAM plan, and
5. Increases opacity limits from 5% to 10%.

This modification includes a large increase in VOC emissions. This is the result of updating AP-42 and stack testing emission factors. No physical changes are included in this permit.

7. COMPLAINT STATUS:

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

This facility has no enforcement action pending at this time.

8. APPLICABLE REGULATIONS:

PSD Applicability

Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
 Has the facility undergone PSD review in the past? Y
 Is the facility categorized as a major source for PSD? Y
 ≥ 100 tpy and on the list of 28? Y
 ≥ 250 tpy all other? Y

PSD Netting

Was netting performed to avoid PSD review in this permit? N

Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
SN-01	PM ₁₀ , VOC, CO, and NO _x	40 CFR Part 64 Compliance Assurance Monitoring (CAM)
SN-02	PM ₁₀ , VOC, CO, and NO _x	40 CFR Part 64 Compliance Assurance Monitoring (CAM)
Facility	Formaldehyde, Methanol, and Phenol	112G
Facility	PM/PM ₁₀ , VOC, CO, and NO _x	PSD
Facility	All	NESHAP for Plywood and Composite Wood Products (Proposed Rule on January 9, 2003, with a proposed promulgation of March 2004)

9. EMISSION CHANGES:

The following table summarizes plantwide emission changes associated with this permitting action.

Plantwide Permitted Emissions (tpy)			
Pollutant	Permit # 1803-AOP-R2	Permit # 1803-AOP-R3	Change
PM	751.8	752.0	+0.2
PM ₁₀	554.1	555.1	+1.0
SO ₂	30.7	30.8	+0.1
VOC	810.4	920.0	+109.6
CO	1,179.2	1,192.5	+13.3
NO _x	380.3	393.5	+13.2
Acetaldehyde	3.82	4.06	+0.24
Formaldehyde	14.7	27.91	+13.21
Methanol	2.85	45.60	+42.75
Phenol	7.30	10.54	+3.24
POM	0.01	0	-0.01

10. MODELING:

Criteria Pollutants

Examination of the source type, location, plot plan, land use, emission parameters, and other available information indicate that modeling based on the changes in this permit is not warranted at this time. Previous permits have included full PSD modeling.

Non-Criteria Pollutants:

1st Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Department 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	4.96	1.27	YES
Formaldehyde	0.37	0.04	6.38	NO
Methanol	262.08	28.83	10.62	YES
Phenol	15.39	1.69	2.96	NO

2nd Tier Screening (PAIL)

ISCST3 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 Department to be one one-hundredth of the Threshold Limit Value as listed by the ACGIH. These numbers are based on the original PSD modeling adjusted for the new emission levels.

Pollutant	PAIL ($\mu\text{g}/\text{m}^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
Formaldehyde	3.70	1.52	Yes
Phenol	153.9	0.77	Yes

11. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01	Testing	14.89 lb/hr PM 25.25 lb/hr VOC 6.72 lb/hr CO 14.66 lb/hr NOX 0.37 lb/hr Formald	RTO	85 90 75 add 10 ppm 90	-
01A	AP-42	Natural Gas	None	n/a	
02	Testing	2.83 lb/hr PM 20.05 lb/hr VOC 7.25 lb/hr CO 10.73 lb/hr NOX 0.24 lb/hr Formald	TCO	75 90 - - 98	
03	AP-42	0.01 Gr/dscf	Bag Filter	99.96	
04	AP-42	0.01 Gr/dscf	Bag Filter	99.73	
05	AP-42	0.01 Gr/dscf	Bag Filter	98.67	
06	AP-42	0.01 Gr/dscf	Bag Filter	99.74	
07	AP-42	0.01 Gr/dscf	Bag Filter	99.96	
08	AP-42	0.01 Gr/dscf	Bag Filter	99.28	
09	AP-42	0.01 Gr/dscf	Bag Filter	99.96	
10	AP-42	Various Factors	-	-	

12. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
01	PM10 NOX CO VOC Formaldehyde Opacity	5 7E 10 25A Acetylacetone 9	Every 5 Years	Basis for calculations
02	PM10 NOX CO VOC Formaldehyde Opacity	5 7E 10 25A Acetylacetone 9	Every 5 Years	Basis for calculations

13. 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)
01	RTO Temperature	CEM	15 minutes	N
01	RTO Flow Rate	CEM	15 minutes	N
01	ID Fan Static Pressure	CEM	Hourly	N
02	RTO Temperature	CEM	15 minutes	N
02	RTO Flow Rate	CEM	15 minutes	N
02	ID Fan Static Pressure	CEM	Hourly	N

14. RECORD KEEPING 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)
Facility	OSB Throughput	600 million square feet on a 3/8-inch basis	Annual	Y
SN-01A	Venting to Atmosphere and Fuel used	Only Natural Gas	Monthly	N

15. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01	10%	Dept. Guidance	Weekly
01	20%	Dept. Guidance During Bakeout	Daily During Bakeout
02	10%	Dept. Guidance	Weekly
02	20%	Dept. Guidance During Bakeout	Daily During Bakeout
03	10%	Dept. Guidance	Weekly
04	10%	Dept. Guidance	Weekly
05	10%	Dept. Guidance	Weekly
06	10%	Dept. Guidance	Weekly
07	10%	Dept. Guidance	Weekly
08	10%	Dept. Guidance	Weekly
09	10%	Dept. Guidance	Weekly
10	20%	Dept. Guidance	Daily

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16. DELETED CONDITIONS:

Former SC	Justification for removal
There were none.	

17. VOIDED, SUPERCEDED, OR SUBSUMED PERMITS:

List all active permits voided/superceded/subsumed by the issuance of this permit.

Permit #
1803-AOP-R2

18. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.

Phillip Murphy, P.E.