

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1803-AOP-R4 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:

May 03, 2006

6. REVIEWER'S NOTES:

This minor modification application is to move the Overlay Project from the insignificant activities table into the Non-Stack Emissions Sources (SN-10). Increases from this modification will be 0.8 tons per year of PM, 1.2 tons per year of VOC, 0.20 tons per year of Acetaldehyde, 0.49 tons per year of Formaldehyde, 0.10 tons per year of Methanol, and 0.50 tons per year of Vinyl Acetate.

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-R3 | Permit # 1803-AOP-R4 | Change |
| PM | 752.0 | 752.8 | +0.8 |
| PM ₁₀ | 555.1 | 555.1 | 0 |
| SO ₂ | 30.8 | 30.8 | 0 |
| VOC | 920.0 | 921.2 | +1.2 |
| CO | 1,192.5 | 1,192.5 | 0 |
| NO _x | 393.5 | 393.5 | 0 |
| Acetaldehyde | 4.06 | 4.26 | +0.20 |
| Formaldehyde | 27.91 | 28.40 | +0.49 |
| Methanol | 45.60 | 45.70 | +0.10 |
| Phenol | 10.54 | 10.54 | 0 |
| POM | 0 | 0 | 0 |
| Vinyl Acetate | 0 | 0.50 | +0.50 |

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-R3 |

18. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.

Phillip Murphy, P.E.