

## STATEMENT OF BASIS

For the issuance of Draft Air Permit # 2055-AR-1 AFIN: 70-00004

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Watson Lumber Company / Watson Sawmill, Inc.  
170 Mill Road  
Mount Holly, Arkansas 71758

3. PERMIT WRITER:

Karen Cerney

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Sawmills  
NAICS Code: 321113

5. SUBMITTALS:

April 4, 2004

6. REVIEWER'S NOTES:

Watson Lumber Company / Watson Sawmill, Inc. operates a hardwood sawmill in Mount Holly. This permitting action allows the facility to increase the production rates for the Debarker (SN-01), Rough Cut Sawmill (SN-02), Planing Mill (SN-05), and the Drying Kilns (SN-07 and SN-08), and it also allows for the addition of two new Drying Kilns (SN-09 and SN-10) to the facility. This permitting action allows an increase in PM emissions by 21.9 tons per year (tpy), PM<sub>10</sub> emissions by 16.8 tpy, and VOC emissions by 5.6 tpy with this modification.

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues: the facility has no current enforcement actions as of 05/05/04.

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? N

Is the facility categorized as a major source for PSD? N

≥ 100 tpy and on the list of 28? N

≥ 250 tpy all other? N

PSD Netting

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

If so, indicate increases and decreases used in netting for PSD purposes only.

Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
SN-06	N/A	NSPS Subpart Dc

9. EMISSION CHANGES:

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

Plantwide Permitted Emissions (tpy)			
Pollutant	Permit #2055-A	Permit #2055-AR-1	Change
PM	30.7	52.6	+21.9
PM <sub>10</sub>	21.3	38.1	+16.8
SO <sub>2</sub>	1.3	1.3	+0.0
VOC	2.5	8.1	+5.6
CO	31.5	31.5	+0.0
NO <sub>x</sub>	11.6	11.6	+0.0
Acrolein	0.21	0.21	+0.00
Benzene	0.22	0.22	+0.00
Chlorine	0.04	0.04	+0.00

Plantwide Permitted Emissions (tpy)			
Pollutant	Permit #2055-A	Permit #2055-AR-1	Change
Formaldehyde	0.23	0.23	+0.00
Hydrogen Chloride	1.00	1.00	+0.00
Styrene	0.10	0.10	+0.00
Arsenic	0.01	0.01	+0.00
Lead	0.01	0.01	+0.00
Manganese	0.08	0.08	+0.00

## 10. MODELING:

## Criteria Pollutants

Examination of the source type, location, plot plan, land use, emission parameters, and other available information indicate that modeling is not warranted at this time.

## Non-Criteria Pollutants:

1<sup>st</sup> 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 ( $\text{mg}/\text{m}^3$ ), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV ( $\text{mg}/\text{m}^3$ )	PAER (lb/hr) = $0.11 \times \text{TLV}$	Proposed lb/hr	Pass?
Acrolein	0.229	0.0252	0.05	No
Benzene	1.597	0.1757	0.05	Yes
Chlorine	1.45	0.1595	0.01	Yes
Formaldehyde	0.368	0.0405	0.05	No
Hydrogen Chloride	2.98	0.3278	0.23	Yes
Styrene	85.20	9.372	0.02	Yes
Arsenic	0.03	0.0033	0.01	No

Pollutant	TLV (mg/m <sup>3</sup> )	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Lead	0.42	0.0462	0.01	Yes
Manganese	0.449	0.0494	0.02	Yes

## 2<sup>nd</sup> 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.

Pollutant	PAIL (µg/m <sup>3</sup> ) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/m <sup>3</sup> )	Pass?
Acrolein	2.2	0.24	Yes
Formaldehyde	3.68	0.24	Yes
Arsenic	0.3	0.05	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	AP-42, 1985	PM – 0.02 lb/ton PM <sub>10</sub> – 0.011 lb/ton	None	N/A	Uncontrolled
02	AP-42, 1985	PM – 0.35 lb/ton PM <sub>10</sub> – 0.20 lb/ton	None	N/A	Uncontrolled
03	AP-42, 1985	PM – 1.00 lb/ton PM <sub>10</sub> – 0.36 lb/ton	None	N/A	Uncontrolled
04	AP-42, 1985	PM – 0.40 lb/ton PM <sub>10</sub> – 0.40 lb/ton	None	N/A	Uncontrolled
05	AP-42, 1985	PM – 1.00 lb/ton PM <sub>10</sub> – 1.00 lb/ton	Cyclone	80%	
06	AP-42	PM – 0.22 lb/MMbtu PM <sub>10</sub> – 0.20 lb/MMbtu NO <sub>x</sub> – 0.22 lb/MMbtu SO <sub>2</sub> – 0.025 lb/MMbtu CO – 0.60 lb/MMbtu VOC – 0.017 lb/MMbtu	Multi- clone	80%	

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
07 - 10	Dept. Guidance	VOC – 1lb/1000 bf	None	N/A	

## 12. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
06	PM <sub>10</sub>	201A or 202	5-years	Department Guidance
06	CO	10	Initial	Department Guidance

## 13. MONITORING OR CEMS

No CEMs or parametric monitoring is required.

## 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)
01	Amount of Hardwood debarked	130,050 tons/yr	Monthly	N
06	Amount of sawdust and wood chips combusted	11,680 tons/yr	Monthly	N
06	Amount of fuel combusted	N/A	Daily	N
07 - 10	Lumber dried	14 million board feet/yr	Monthly	N

15. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01, 02, 03, and 04	20%	Department Guidance	Annual Inspection
05 and 06	10%	Department Guidance	Annual Inspection

16. DELETED CONDITIONS:

Former SC	Justification for removal
	N/A

17. VOIDED, SUPERCEDED, OR SUBSUMED PERMITS:

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

Permit #
2055-A

18. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.

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Phillip Murphy, P.E.