

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 2055-A 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:

November 20, 2003

6. REVIEWER'S NOTES:

Watson Lumber Company / Watson Sawmill, Inc. operates a hardwood sawmill in Mount Holly. This is the initial permit for the existing facility. Actual emissions from this facility prior to installation of the boiler and the planing mill were below the permitting threshold. New emissions, including the boiler (SN-06) and planing mill (SN-05), bring the facility above the permitting threshold for PM₁₀ and PM. Throughput limits on annual production will limit emissions to 30.7 tpy of PM, 21.3 tpy of PM₁₀, 1.3 tpy of SO₂, 2.5 tpy of VOC, 31.5 tpy of CO, 11.6 tpy of NO_x, and 1.9 tpy of HAPs.

7. COMPLAINT 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 12/19/03.

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	Unpermitted Facility	Permit #2055-A	Change
PM		30.7	+30.7
PM ₁₀		21.3	+21.3
SO ₂		1.3	+1.3
VOC		2.5	+2.5
CO		31.5	+31.5
NO _x		11.6	+11.6
Acrolein		0.21	+0.21
Benzene		0.22	+0.22
Chlorine		0.04	+0.04

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

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:

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?
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 ³)	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

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.

Pollutant	PAIL (µg/m ³) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/m ³)	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 ₁₀ – 0.011 lb/ton	None	N/A	Uncontrolled
02	AP-42, 1985	PM – 0.35 lb/ton PM ₁₀ – 0.20 lb/ton	None	N/A	Uncontrolled
03	AP-42, 1985	PM – 1.00 lb/ton PM ₁₀ – 0.36 lb/ton	None	N/A	Uncontrolled
04	AP-42, 1985	PM – 0.40 lb/ton PM ₁₀ – 0.40 lb/ton	None	N/A	Uncontrolled
05	AP-42, 1985	PM – 1.00 lb/ton PM ₁₀ – 1.00 lb/ton	Cyclone	80%	
06	AP-42	PM – 0.22 lb/MMbtu PM ₁₀ – 0.20 lb/MMbtu NO _x – 0.22 lb/MMbtu SO ₂ – 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 and 08	Dept. Guidance	VOC – 11lb/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 ₁₀	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	67,320 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 and 08	Lumber dried	1.5 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 #
None

18. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.

Phillip Murphy, P.E.