

## STATEMENT OF BASIS

for the issuance of Draft Air Permit # : 1949-AR-3

**1. PERMITTING AUTHORITY:**

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

**2. APPLICANT:**

Akin Industries, Incorporated  
100 East Brookhaven  
Dumas, AR 71639

**3. PERMIT WRITER: Charles Hurt**

**4. PROCESS DESCRIPTION AND NAICS CODE:**

NAICS Code	NAICS Description
337122	Nonupholstered Wood Furniture Manufacturing
337121	Upholstered Wood Furniture Manufacturing

**5. SUBMITTALS: 4/5/2006**

**6. REVIEWER'S NOTES:**

Akin Industries, Inc. manufactures wood and upholstered furniture for the health care industry at its location of 100 East Brookhaven, Dumas, Desha County, Arkansas. This modification will allow the facility to utilize unused production capacity resulting in increased raw material usage. Akin requested to increase the permitted VOC emission limit from 72.0 tpy to 91.0 tpy, a 19.0 tpy increase. Actual PM, PM<sub>10</sub>, and HAP emissions will also increase, and the existing permit limits are based on the maximum production capacity of the equipment. Therefore, permitted PM, PM<sub>10</sub>, and HAP limits were not increased.

**7. COMPLIANCE STATUS:**

The facility was last inspected November 15, 2003, and it was found to be in compliance. A Consent Administrative Order (CAO LIS: 06-049) was presented for public review on April 10, 2006. The CAO was issued following complaints of open burning.

**8. APPLICABLE REGULATIONS:**

**PSD Applicability**

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

**Source and Pollutant Specific Regulatory Applicability**

The are no applicable source and/or pollutant specific regulations for this facility.

**9. EMISSION CHANGES:**

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

<b>Plant Wide Permitted Emissions (ton/yr)</b>			
<b>Pollutant</b>	<b>Air Permit # 1949-AR-2</b>	<b>Air Permit # 1949-AR-3</b>	<b>Change</b>
PM/PM <sub>10</sub>	45.7		0
VOC	72.0	91.0	19.0
Total HAP	23.7	23.7	0
Toluene	7.88	7.88	0
2-Butoxyethanol	1.23	1.23	0
Xylene	4.00	4.00	0
Ethyl Benzene	4.53	4.53	0
MIBK	1.30	1.30	0
Methanol	1.30	1.30	0
Naphthalene	0.21	0.21	0
Dibutyl Phthalate	1.75	1.75	0
Hexane	4.90	4.90	0
Hexamethylene Diisocyanate	0.10	0.10	0
Acetone	20.00	20.00	0

Permit #: 1949-AR-3

AFIN: 21-00121

Page 3 of 5

**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.

**Other Modeling**

The facility has not reported any use of materials containing hydrogen sulfide or styrene. Therefore, odor modeling is not warranted at this time.

**Non-Criteria Pollutants**

This permit contains a TLV table for non-criteria pollutants. Modeling was used to determine the permitted emission rates for ranges of non-criteria pollutants (grouped by TLVs) that pass the *PAIL*. Therefore, modeling of specific non-criteria pollutants was not performed.

Product	HAP/Toxic Content (lb/gal)
Acetone	8.0
Toluene	5.1
2-Butoxyethanol	2.6
Xylene	8.0
Ethyl Benzene	8.0
MIBK	5.5
Methanol	7.0
Naphthalene	1.4
Dibutyl Phthalate	0.13
Hexane	4.7

**11. CALCULATIONS:**

SN	Emission Factor Source	Emission Factor and units	Control Equipment Type	Control Equipment Efficiency	Comments
01	Manufacturer's Specifications	PM: 0.5 mg/m <sup>3</sup>	baghouse	99%	Air flow rate: 35,000 cfm
02, 03	AP-42, 4 <sup>th</sup> Ed. table 10.4.1	PM: 0.03 gr/ft <sup>3</sup>	cyclone		Air flow rate: 20,000 cfm
04	Mass Balance, AP-42	1 lb <sub>PM</sub> / 1 T <sub>sawdust</sub>	baghouse cyclone	99% 85%	

SN	Emission Factor Source	Emission Factor and units	Control Equipment Type	Control Equipment Efficiency	Comments
05-07, 10-14	Equipment Spec. & MSDS sheets	<i>maximum lb/gal</i> Acetone: 8.0 Toluene: 6.4 2-Butoxyethanol: 2.6 Xylene: 8.0 Ethylbenzene: 8.0 MIBK: 6.4 Methanol: 8.0 Naphthalene: 1.6 Dibutyl Phthalate: 0.16 Hexane: 5.6			Maximum Capacity: 26 gal/hr
15	Equipment Spec. & MSDS	<i>Max Content lb/gal</i> VOC: 8.0 Acetone: 8.0 Toluene: 6.4 Hexamethylene Diisocyanate: 0.1 Dibutyl Phthalate: 0.16 Hexane: 5.6			Maximum Capacity: 3 gal/hr

**12. TESTING REQUIREMENTS:**

There are no testing requirements for this facility.

**13. MONITORING OR CEMS**

There are no required monitoring devices or CEMS for this facility.

**14. RECORD KEEPING REQUIREMENTS**

The following are items (such as throughput, fuel usage, VOC content of coating, etc) that must be tracked and recorded, frequency of recording and whether records are needed to be included in any annual, semiannual or other reports.

SN	Recorded Item	Limit	Frequency*	Report (Y/N)**
05-07, 10-15	Monthly VOC Emissions [material, MSDS, VOC content (lb/gal), & usage (gal/month)]	91.0 tpy 8.0 lb/gal	Monthly	Y
	Monthly HAP Emissions [material, MSDS, HAP content (lb/gal), & usage (gal/month)]	23.7 tpy	Monthly	Y

\* Indicate frequency of recording required for the item (Continuously, hourly, daily, etc.)

\*\* Indicates whether the item needs to be included in reports

**15. OPACITY**

<b>SN</b>	<b>Opacity %</b>	<b>Justification (NSPS limit, Dept. Guidance, etc)</b>	<b>Compliance Mechanism (daily observation, weekly, control equipment operation, etc)</b>
01-04	15%	Department Guidance	Inspector's Observation

**16. DELETED CONDITIONS:**

No specific condition was deleted.

**17. VOIDED, SUPERSEDED OR SUBSUMED PERMITS**

List all active permits voided/superseded/subsumed by issuance of this permit for this facility.

<b>Permit #</b>
1949-AR-2

**18. CONCURRENCE BY:**

The following supervisor concurs with the permitting decision:

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Phillip Murphy, P.E.  
Engineering Supervisor, Air Division