

## STATEMENT OF BASIS

for the issuance of Draft Air Permit # 511-AR-5

**1. PERMITTING AUTHORITY:**

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

**2. APPLICANT:**

Amercable, Inc.  
350 Bailey Road  
El Dorado, Arkansas 71730

**3. PERMIT WRITER:** Ann Sudmeyer

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

NAICS Description: Drawing and Insulating of Nonferrous Wire  
NAICS Code: 331422

**5. SUBMITTALS:** June 10, 2004

**6. REVIEWER'S NOTES:**

Amercable, Inc. is a manufacturer of industrial cable. This facility is located in El Dorado, Union County, Arkansas. This de minimis modification is necessary to:

1. Correct the hourly throughput of inks and extenders;
2. Increase the annual ink and extender usage limit to 1,000 gallons per year;
3. Increase the VOC content limit of the inks and extenders from 6.9 lb/gal to 9.84 lb/gal;
4. Permit the inks and extenders for a maximum methyl isobutyl ketone content of 3.75 lb/gal;
5. Permit inks and extenders for a maximum toluene content of 4.97 lb/gal; and
6. Increase the acetone content limit of the inks and extenders from 0.6 lb/gal to 4.02 lb/gal.

This will result in permitted emission rate increases of 4.7 tpy VOC, 3.25 tpy methyl ethyl ketone, 1.28 tpy methyl isobutyl ketone, and 2.07 tpy acetone. The facility was out of compliance with the 70 gallons per year limit on the inks and extenders.

In addition, the permit was corrected to include the toluene emission limits for SN-08. The toluene emissions were left off of the emission rate table for this source, and thus were inadvertently left out of the emission rate limits for this source. The Lacquer (Telecom Cable)

used at SN-08 was permitted for a toluene content of 5% by weight, but the emission rate limits did not reflect this.

**7. COMPLIANCE STATUS:**

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

Amercable's inspection on June 10 and 11, 2004 revealed that they were not keeping records of the VOC emissions from SN-06 and SN-08 and the Adhesive (DOP) usage at SN-07. In addition, the facility had used more than 70 gal/yr of ink/extender at SN-08. A CAO will be drafted to address the non-compliance issues. This de minimis modification increases the usage limit of the ink/extender for SN-08.

**8. APPLICABLE REGULATIONS:**

**PSD Applicability**

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

**PSD Netting**

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

**Source and Pollutant Specific Regulatory Applicability**

Source	Pollutant	Regulation [NSPS, NESHAP (Part 61 & Part 63), or PSD only]
Not Applicable		

**9. EMISSION CHANGES:**

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

Plant Wide Permitted Emissions (ton/yr)			
Pollutant	Air Permit 511-AR-4	Air Permit 511-AR-5	Change
PM	1.4	1.4	0
PM <sub>10</sub>	1.4	1.4	0

Plant Wide Permitted Emissions (ton/yr)			
Pollutant	Air Permit 511-AR-4	Air Permit 511-AR-5	Change
SO <sub>2</sub>	0.4	0.4	0
VOC	37.6	42.3	4.7
CO	8.0	8.0	0
NO <sub>x</sub>	9.6	9.6	0
Acetone	17.63	19.7	2.07
Acetophenone	7.5	7.5	0
Di(2-ethylhexyl)phthalate	1.48	1.48	0
Ethyl Benzene	0.86	0.86	0
Lead	0.3	0.3	0
Methanol	6.00	6.00	0
Methylene Chloride	9.5	9.5	0
Methyl Ethyl Ketone	0.25	3.5	3.25
Methyl Isobutyl Ketone	8.22	9.5	1.28
Toluene	9.5	9.5	0
Xylene	3.77	3.77	0

**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. All criteria pollutants are less than 100 tpy.

**11. 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 deemed PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m<sup>3</sup>), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m <sup>3</sup> )	PAER (lb/hr) = 0.11*TLV	Proposed lb/hr	Pass?
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Pollutant	TLV (mg/m <sup>3</sup> )	PAER (lb/hr) = 0.11*TLV	Proposed lb/hr	Pass?
Acetone	1187.11	130.58	15.5	Y
Acetophenone	49.14	5.40	11.2	N
Di(2-ethylhexyl)phthalate	5	0.55	0.94	N
Ethyl Benzene	434.19	47.76	0.24	Y
Lead	0.05	0.0055	0.3	N
Methanol	262.08	28.82	3.0	Y
Methylene Chloride	173.68	19.10	5.5	Y
Methyl Ethyl Ketone	589.77	64.87	7.0	Y
Methyl Isobutyl Ketone	204.82	22.53	5.9	Y
Toluene	188.40	20.72	9.4	Y
Xylene	434.19	47.76	0.86	Y

**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 was 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?
Acetophenone	491.4	184.5	Y
Di(2-ethylhexyl)phthalate	50	15.6	Y
Lead	0.5	0.325	Y

**12. CALCULATIONS:**

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
SN-01	AP-42, Natural Gas Combustion Factors	PM/PM <sub>10</sub> : 7.6 lb/MMft <sup>3</sup> SO <sub>2</sub> : 0.6 lb/MMft <sup>3</sup> VOC: 5.5 lb/MMft <sup>3</sup> CO: 84 lb/MMft <sup>3</sup> NO <sub>x</sub> : 100 lb/MMft <sup>3</sup>	N/A	N/A	6.5 MMBTU/hr
SN-02	AP-42, Natural Gas Combustion Factors	PM/PM <sub>10</sub> : 7.6 lb/MMft <sup>3</sup> SO <sub>2</sub> : 0.6 lb/MMft <sup>3</sup> VOC: 5.5 lb/MMft <sup>3</sup> CO: 84 lb/MMft <sup>3</sup> NO <sub>x</sub> : 100 lb/MMft <sup>3</sup>	N/A	N/A	6.5 MMBTU/hr
SN-03	AP-42, Natural Gas Combustion Factors	PM/PM <sub>10</sub> : 7.6 lb/MMft <sup>3</sup> SO <sub>2</sub> : 0.6 lb/MMft <sup>3</sup> VOC: 5.5 lb/MMft <sup>3</sup> CO: 84 lb/MMft <sup>3</sup> NO <sub>x</sub> : 100 lb/MMft <sup>3</sup>	N/A	N/A	4.2 MMBTU/hr
SN-04	AP-42, Natural Gas Combustion Factors	PM/PM <sub>10</sub> : 7.6 lb/MMft <sup>3</sup> SO <sub>2</sub> : 0.6 lb/MMft <sup>3</sup> VOC: 5.5 lb/MMft <sup>3</sup> CO: 84 lb/MMft <sup>3</sup> NO <sub>x</sub> : 100 lb/MMft <sup>3</sup>	N/A	N/A	4.2 MMBTU/hr
SN-05	Thermoplastic extrusion factor from similar facility	0.191 lb VOC/ton	N/A	N/A	Hourly emission rates based on 1050 lb compound/hr. Annual emission rates based on 2.5 MM lb/yr.
SN-06	Material Balance, MSDS	VOC: Chemlok 6.903 lb/gal Toluene Extender 7.18 lb/gal HAPs: Ethyl Benzene 1.534 lb/gal Toluene 7.18 lb/gal Xylene 5.369 lb/gal	N/A	N/A	Annual emission rates based on 600 gal/yr Chemlock and 2220 gal/yr toluene extender. Hourly emission rates based on 0.1 gal/hr Chemlock

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
					and 0.5 gal/hr toluene extender.
SN-07	MSDS, Rubber Tire Manufacturing Industry	<p>1.0 wt% acetophenone (from the decomposition of cumene peroxide)</p> <p>0.002 lb VOC/25.3 lb</p> <p>Adhesive (DOP):        8.2 lb/gal VOC        8.2 lb/gal di(2-ethylhexyl)phthalate</p>	N/A	N/A	<p>Hourly emission rates based on 371 lb compound/hr and 3 lines of acetophenone-producing compounds. Total maximum extrusion rate of 17,500 lb compound/hr. Hourly emission rate based on 0.94 lb/hr Adhesive (DOP). Annual emission rates based on 1.5 MM lb/yr of acetophenone-producing compounds and 12 MM lb/yr of total thermoset compounds. Annual emission rate based on 360 gal/yr Adhesive (DOP).</p>

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
SN-08	Material Balance, MSDS	VOC M-1055: 7.5 lb/gal Lacquer (Telecom Cable): 25 wt% Varsol: 6.34 lb/gal Ink/Extender: 9.84 lb/gal HAPs Methylene Chloride Solvent: Methylene Chloride 11.0 lb/gal M-1055: MIBK 3.75 lb/gal Lacquer (Telecom Cable): Methanol 20 wt% Toluene 5 wt% Varsol: Ethyl benzene 0.04 lb/gal Xylene 0.32 lb/gal Acetone Acetone: 6.7 lb/gal Lacquer (Telecom Cable): 25 wt% Ink/Extender: MEK 6.9 lb/gal Acetone 4.02 lb/gal MIBK 3.75 lb/gal Toluene 4.97 lb/gal	N/A	N/A	Hourly emission rates based on: 0.5 gal/hr Methylene Chloride, 0.5 gal/hr M-1055, 1 gal/hr acetone, 15 lb/hr Lacquer (Telecom Cable), 1 gal/hr Varsol, and 1.0 gal/hr ink/extender. Annual emission rates based on: 360 gal/yr Methylene Chloride, 360 gal/yr M-1055, 3000 gal/yr Acetone, 60000 lb/yr Lacquer (Telecom Cable), 2000 gal/yr Varsol, and 1,000 gal/yr ink/extender.

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
SN-09	MSDS	Quickkote: 15 wt% VOC	Baghouse	97%	Hourly VOC emission rate based on 4.8 lb/hr Quickkote. Hourly lead emission rate based on a worst case of 2000 hr/yr. Annual emission rates based on 18,000 lb/yr Quickkote and 15,000 lb/yr lead dust produced.

**13. TESTING REQUIREMENTS:**

This permit requires stack testing of the following sources.

SN(s)	Pollutant	Test Method	Test Interval	Justification For Test Requirement
Not Applicable				

**14. MONITORING OR CEMS**

The permittee must monitor the following parameters with CEMs or other monitoring equipment (temperature, pressure differential, etc), frequency of recording and the need for records included in any annual, semiannual or other reports.

SN	Parameter or Pollutant to be Monitored	Method of Monitoring (CEM, Pressure Gauge, etc)	Frequency*	Report (Y/N)**
Not Applicable				

\* Indicate frequency of recording required for the parameter (Continuously, hourly, daily, etc.)  
 \*\* Indicates whether the parameter needs to be included in reports.



**15. 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 (as established in permit)	Frequency *	Report (Y/N)**
SN-05	Thermoplastic Compound Usage	2,500,000 pounds/year	Monthly	N
SN-06 and SN-08	VOC Emissions	30.4 tons/year	Monthly	N
SN-06	MSDS (or equivalent) for VOC Content	Chemlok: 6.903 lb/gal Toluene Extender: 7.18 lb/gal	As Needed	N
SN-06	MSDS (or equivalent) for Pollutant Content	Chemlok: Ethyl Benzene 1.534 lb/gal Xylene 5.369 lb/gal Toluene Extender: Toluene 7.18 lb/gal	As Needed	N
SN-07	Thermoset Compound Usage	12,000,000 pounds/year	Monthly	N
SN-07	Acetophenone-producing Thermoset Compound Usage	1,500,000 pounds/year	Monthly	N
SN-07	Adhesive (DOP) Usage	360 gallons/year	Monthly	N
SN-07	MSDS (or equivalent)	1.0 wt% acetophenone (from the decomposition of cumene peroxide) Adhesive (DOP): 8.2 lb VOC/gal 8.2 lb di(2-ethylhexyl)phthalate/gal	As Needed	N
SN-08	Material Throughput	Acetone 3,000 gal/yr Lacquer (Telecom Cable) 60,000 lb/yr Ink/Extender 1,000 gal/yr	Monthly	N
SN-08	MSDS (or equivalent) for VOC Content	M-1055: 7.5 lb/gal Lacquer (Telecom Cable): 25% by weight Varsol: 6.34 lb/gal Ink/Extender: 9.84 lb/gal	As Needed	N

SN	Recorded Item	Limit (as established in permit)	Frequency *	Report (Y/N)**
SN-08	MSDS (or equivalent) for Pollutant Content	Methylene Chloride Solvent: Methylene Chloride 11.0 lb/gal M-1055 Solvent: MIBK 3.75 lb/gal Lacquer (Telecom Cable): Acetone 25 wt% Methanol 20 wt% Toluene 5 wt% Varsol: Ethyl benzene: 0.04 lb/gal Xylene 0.32 lb/gal Ink/Extender: Acetone 4.02 lb/gal Methyl Ethyl Ketone 6.9 lb/gal MIBK 3.75 lb/gal Toluene 4.97 lb/gal	As Needed	N
SN-09	VOC Emissions	1.4 tons/year	Monthly	N
SN-09	MSDS (or equivalent) for VOC Content	Quickkote Lead Release Agent: 15% by wt	As Needed	N
SN-09	Material Throughput	Lead Dust Produced 15,000 pounds/year	Monthly	N
SN-09	Baghouse Maintenance Inspection Log	N/A	Weekly	N
Plant wide	HAP Emissions	9.5 tons/year single HAP 23.75 tons/year total HAPs	Monthly	N

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

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

**16. OPACITY**

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
SN-01 through SN-04	5%	Department Guidance	Natural Gas Combustion
SN-05	5%	Department Guidance	---
SN-09	5%	Department Guidance	Baghouse Operation

**17. DELETED CONDITIONS:**

The previous permit contained the following deleted Specific Conditions.

Former SC	Justification for removal
Not Applicable	

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

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

Permit #
511-AR-4

**19. CONCURRENCE BY:**

The following supervisor concurs with the permitting decision:

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Lyndon Poole, P.E.