# ADEQ MINOR SOURCE AIR PERMIT

Permit #: 1453-AR-3

IS ISSUED TO:

Alliance Rubber Company 210 Carpenter Dam Road Hot Springs, AR 71903 Garland County AFIN: 26-00039

THIS PERMIT IS YOUR AUTHORITY TO CONSTRUCT, MODIFY, OPERATE, AND/OR MAINTAIN THE EQUIPMENT AND/OR FACILITY IN THE MANNER AS SET FORTH IN THE DEPARTMENT'S MINOR SOURCE AIR PERMIT AND YOUR APPLICATION. THIS PERMIT IS ISSUED PURSUANT TO THE PROVISIONS OF THE ARKANSAS WATER AND AIR POLLUTION CONTROL ACT (ARK. CODE ANN. SEC. 8-4-101 ET SEQ.) AND THE REGULATIONS PROMULGATED THEREUNDER, AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:		
Mike Bates	Date	
Chief, Air Division		

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#### **SECTION I: FACILITY INFORMATION**

PERMITTEE: Alliance Rubber Company

AFIN: 26-00039

PERMIT NUMBER: 1453-AR-3

FACILITY ADDRESS: 210 Carpenter Dam Road

Hot Springs, AR 71901

COUNTY: Garland

CONTACT POSITION: Trevor Hamilton

TELEPHONE NUMBER: 501-262-2700

REVIEWING ENGINEER: Paula Parker

UTM North-South (Y) 3814.139

UTM East-West (X): 498.086

Zone 15

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#### **SECTION II: INTRODUCTION**

### **Summary**

Alliance Rubber Company operates a rubber products manufacturing facility (SIC 3069) located at 210 Carpenter Dam Road, Hot Springs, Garland County, Arkansas. This facility was initially (in the 1940s) a packaging operation. The permittee has been involved in manufacturing since 1978. This modification proposes to add to the permit a Silk Screening Area (SN-14). Also being added are two insignificant activities, a 320 gallon diesel tank as an A-3 activity and a small plastic extrusion operation as an A-13 activity. Total emission increases for this project are 12.0 tpy VOC.

## **Process Description**

This facility receives raw materials exclusively by truck. Raw materials for this operation consist of natural and synthetic rubber, accelerators, retardants, curing agents, elemental sulfur, acids, talc, various waxes, bonding preventatives, and limestone. A storage silo is used to store the limestone needed for the process. Emissions from the silo are controlled by a small baghouse (SN-12).

To begin the process, all raw materials, with the exception of salt bath curing compounds and talc, are combined in a Banbury mixer. The materials are blended until the mixture reaches specification. The mixing reaction is exothermic. In order to maintain temperature at approximately  $50^{\circ}$  F, chilled water is applied. Emissions from the reaction area are controlled by cartridge filters (SN-01). Blended material is processed, by milling, into strips suitable for extrusion. Air is blown on the strips as they are being conveyed to further cool the material. In order to minimize material adhesion, a bonding preventative is added. Blended, cooled material is then collected in bins and is transferred to the extrusion lines. There are six (6) extrusion and finishing lines. Primary particulate emissions from the extrusion process are controlled by cartridge filters (SN-02).

Cooled, milled strips of material are fed into the extruders. In order to facilitate the extrusion process, the material is electrically heated. Talc is introduced into the extrusion process to minimize the material's tendency to adhere to the extruders. Each extruder line is routed to a vacuum pump which removes air and residual moisture. Extruder lines 1 and 2 route to a common vacuum pump (SN-09), lines 3 and 4 to a common vacuum pump (SN-10), and line 5 to its own vacuum pump (SN-11). Each of these emission points removes some secondary particulate from the extrusion process. Reducing the pressure also reduces the porosity of the final product.

Once extruded, the material is run through a salt bath. There are six (6) salt baths, one for each extruder. The salt bath cures the material and also reduces its temperature. The salt bath uses a mixture of sodium and potassium nitrates and nitrites in water to complete the curing process. Each salt bath is identified as an emission point (SN-03, 04, 05, 07, and 08). There are no control devices on these points. Once cured, the extruded material is routed to a high-speed cutter which sizes the rubber bands. A cartridge filter was added to this area to control particulate emissions (SN-13).

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# Regulations

Alliance Rubber Company is subject to all applicable provisions of the Arkansas Air Pollution Control Code (Regulation 18) and the Arkansas Plan for Implementation of Air Pollution Control (Regulation 19).

The following table is a summary of the facilities total emissions.

**Table 1 - Total Allowable Emissions** 

TOTAL ALLOWABLE EMISSIONS				
Pollutant	Emission Rates			
	lb/hr tpy			
PM	6.1	25.8		
$PM_{10}$	6.1 25.8			
$\mathrm{SO}_2$	0.9	0.9		
VOC	13.1 18.3			

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#### **SECTION III: PERMIT HISTORY**

- 1453-A This is the first operating permit for Alliance Rubber (issued 6/22/93). This permit established the equipment and emission limits for the process bath curing lines and filters.
- 1453-AR-1 This was the first modified permit for Alliance Rubber Company (issued 3/12/96). It was modified to reflect changes in emissions of existing cartridge filters, and the addition of the following items: one bulk limestone storage silo, a baghouse to control the silo emissions, and one cartridge filter at the rubber band cutting area.
- 1453-AR-2 This permit was modified to reflect the addition of a salt bath curing line. This line (SN-08) had specifications and emission limits identical to the existing curing line (SN-07).

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#### SECTION IV: EMISSION UNIT INFORMATION

## **Specific Conditions**

1. The permittee will not exceed the emission rates set forth in the following table. [§19.501 et seq. of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control, effective May 28, 2006 (Regulation 19) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

**Table 2 - Criteria Pollutants** 

SN	Description	Pollutant	lb/hr	tpy
01	Cartridge Filter	PM <sub>10</sub>	2.4	10.3
02	Cartridge Filter	$PM_{10}$	1.2	5.3
03	Curing Line	$PM_{10}$	0.2	0.9
		VOC	0.2	0.9
		$SO_2$	0.1	0.1
04	Curing Line	PM <sub>10</sub>	0.2	0.9
		VOC	0.2	0.9
		$SO_2$	0.1	0.1
05	Curing Line	$PM_{10}$	0.2	0.9
		VOC	0.2	0.9
		$SO_2$	0.1	0.1
06	Curing Line	$PM_{10}$	0.2	0.9
		VOC	0.2	0.9
		$SO_2$	0.1	0.1
07	Curing Line	$PM_{10}$	0.2	0.9
		VOC	0.2	0.9
		$SO_2$	0.1	0.1
08	Curing Line	$PM_{10}$	0.2	0.9
		VOC	0.2	0.9
		$SO_2$	0.1	0.1
09	Vacuum Pump	$PM_{10}$	0.1	0.3
0,	, acadin i dilip	VOC	0.1	0.3
		$SO_2$	0.1	0.1
		202	V.1	J.1
10	Vacuum Pump	$PM_{10}$	0.1	0.3
		VOC	0.1	0.3
		$SO_2$	0.1	0.1
11	Vacuum Pump	PM <sub>10</sub>	0.1	0.3
11	, account amp	VOC	0.1	0.3
		$SO_2$	0.1	0.1
		202	U.1	0.1

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SN	Description	Pollutant	lb/hr	tpy
12	Bag Filter	$PM_{10}$	0.1	0.3
13	Cartridge Filter	$PM_{10}$	0.8	3.5
14	Silk Screening Area	PM <sub>10</sub> VOC	0.1 11.6	0.1 12.0

2. The permittee will not exceed the emission rates set forth in the following table. [§18.801 of the Arkansas Air Pollution Control Code, effective February 15, 1999 (Regulation 18) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

**Table 3 - Non-Criteria Pollutants** 

SN	Description	Pollutant	lb/hr	tpy
01	Cartridge Filter	PM	2.4	10.3
02	Cartridge Filter	PM	1.2	5.3
03	Curing Line	PM	0.2	0.9
04	Curing Line	PM	0.2	0.9
05	Curing Line	PM	0.2	0.9
06	Curing Line	PM	0.2	0.9
07	Curing Line	PM	0.2	0.9
08	Curing Line	PM	0.2	0.9
14	Silk Screening Area	PM	0.1	0.1

3. Visible emissions will not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

**Table 4 - Visible Emissions** 

SN	Limit	Reg. Citation
1, 2,12,13, 14	5%	§18.501
3-8, 9-11	20%	§19.503

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4. The permittee will not cause or permit the emission of air contaminants, including odors or water vapor and including an air contaminant whose emission is not otherwise prohibited by Regulation #18, if the emission of the air contaminant constitutes air pollution within the meaning of A.C.A. §8-4-303. [§18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-31]

5. The permittee will not conduct operations in such a manner as to unnecessarily cause air contaminants and other pollutants to become airborne. [§18.901 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

#### **SN-14 Conditions**

- 6. The permittee shall calculate and maintain records of total VOC emissions from the Silk Screening Area (SN-14) on a monthly basis. These records shall indicate the amount of each material used during that month, the material density, and % VOC by weight. Records shall be updated by the fifteenth day of the month following the month for which the records pertain. These records shall be kept onsite, provided to Department personnel upon request and may be used by the Department for enforcement purposes. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 7. The permittee shall not use any HAP-containing component at the Silk Screen Area (SN-14) without first obtaining a permit modification. [§18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-31]
- 8. The permittee shall maintain current MSDS information for all VOC containing materials at the facility. The facility shall update MSDS information by January 1<sup>st</sup> of each calendar year. These records shall be kept onsite and be made available to Department personnel upon request. [\$19.705 of Regulation 19 and A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311]

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## **SECTION V: INSIGNIFICANT ACTIVITIES**

The following types of activities or emissions are deemed insignificant on the basis of size, emission rate, production rate, or activity in accordance with Group A of the Insignificant Activities list found in Regulation 18 and 19 Appendix A. Insignificant activity emission determinations rely upon the information submitted by the permittee in an application dated April 28, 2006.

Description	Category
320 gallon Diesel Tank	A-3
Plastic Extruder (LG503)	A-13

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#### **SECTION VI: GENERAL CONDITIONS**

- 1. Any terms or conditions included in this permit that specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*). Any terms or conditions included in this permit that specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute.
- 2. This permit does not relieve the owner or operator of the equipment and/or the facility from compliance with all applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated under the Act. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 3. The permittee will notify the Department in writing within thirty (30) days after commencement of construction, completion of construction, first operation of equipment and/or facility, and first attainment of the equipment and/or facility target production rate. [§19.704 of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation 19) and/or A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 4. Construction or modification must commence within eighteen (18) months from the date of permit issuance. [§19.410(B) of Regulation 19 and/or §18.309(B) of the Arkansas Air Pollution Control Code (Regulation 18) and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 5. The permittee must keep records for five years to enable the Department to determine compliance with the terms of this permit; such as hours of operation, throughput, upset conditions, and continuous monitoring data. The Department may use the records, at the discretion of the Department, to determine compliance with the conditions of the permit. [§19.705 of Regulation 19 and/or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 6. A responsible official must certify any reports required by any condition contained in this permit and submit any reports to the Department at the address below. [§19.705 of Regulation 19 and/or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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Arkansas Department of Environmental Quality
Air Division
ATTN: Compliance Inspector Supervisor
Post Office Box 8913
Little Rock, AR 72219

- 7. The permittee will test any equipment scheduled for testing, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) newly constructed or modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start-up of the permitted source or (2) existing equipment already operating according to the time frames set forth by the Department. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. The permittee must submit compliance test results to the Department within thirty (30) days after the completion of testing. [§19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 8. The permittee will provide: [§19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
  - a. Sampling ports adequate for applicable test methods;
  - b. Safe sampling platforms;
  - c. Safe access to sampling platforms;
  - d. Utilities for sampling and testing equipment.
- 9. The permittee will operate equipment, control apparatus and emission monitoring equipment within their design limitations. The permittee will maintain in good condition at all times equipment, control apparatus and emission monitoring equipment. [§19.303 of Regulation 19 and/or §18.1104 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 10. If the permittee exceeds an emission limit established by this permit, the permittee will be deemed in violation of said permit and will be subject to enforcement action. The Department may forego enforcement action for emissions exceeding any limits established by this permit provided the following requirements are met: [§19.601 of Regulation 19 and/or §18.1101 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
  - a. The permittee demonstrates to the satisfaction of the Department that the emissions resulted from an equipment malfunction or upset and are not the result of negligence or improper maintenance, and the permittee took all reasonable measures to immediately minimize or eliminate the excess emissions.

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- b. The permittee reports the occurrence or upset or breakdown of equipment (by telephone, facsimile, or overnight delivery) to the Department by the end of the next business day after the occurrence or the discovery of the occurrence.
- c. The permittee must submit to the Department, within five business days after the occurrence or the discovery of the occurrence, a full, written report of such occurrence, including a statement of all known causes and of the scheduling and nature of the actions to be taken to minimize or eliminate future occurrences, including, but not limited to, action to reduce the frequency of occurrence of such conditions, to minimize the amount by which said limits are exceeded, and to reduce the length of time for which said limits are exceeded. If the information is included in the initial report, the information need not be submitted again.
- 11. The permittee will allow representatives of the Department upon the presentation of credentials: [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
  - a. To enter upon the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of this permit;
  - b. To have access to and copy any records required to be kept under the terms and conditions of this permit, or the Act;
  - c. To inspect any monitoring equipment or monitoring method required in this permit;
  - d. To sample any emission of pollutants; and
  - e. To perform an operation and maintenance inspection of the permitted source.
- 12. The Department issued this permit in reliance upon the statements and presentations made in the permit application. The Department has no responsibility for the adequacy or proper functioning of the equipment or control apparatus. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 13. The Department may revoke or modify this permit when, in the judgment of the Department, such revocation or modification is necessary to comply with the applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated the Arkansas Water and Air Pollution Control Act. [§19.410(A) of Regulation 19 and/or §18.309(A) of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 14. This permit may be transferred. An applicant for a transfer must submit a written request for transfer of the permit on a form provided by the Department and submit the disclosure statement required by Arkansas Code Annotated §8-1-106 at least thirty (30) days in advance of the proposed transfer date. The permit will be automatically transferred to the

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new permittee unless the Department denies the request to transfer within thirty (30) days of the receipt of the disclosure statement. The Department may deny a transfer on the basis of the information revealed in the disclosure statement or other investigation or, deliberate falsification or omission of relevant information. [§19.407(B) of Regulation 19 and/or §18.307(B) of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

- 15. This permit shall be available for inspection on the premises where the control apparatus is located. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 16. This permit authorizes only those pollutant emitting activities addressed herein. [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 17. This permit supersedes and voids all previously issued air permits for this facility. [Regulation 18 and 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 18. The permittee must pay all permit fees in accordance with the procedures established in Regulation No. 9. [A.C.A §8-1-105(c)]

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