

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0957-AOP-R16 AFIN: 46-00005

1. PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality  
5301 Northshore Drive  
North Little Rock, Arkansas 72118-5317

2. APPLICANT:

Cooper Tire & Rubber Company  
3500 East Washington Road  
Texarkana, Arkansas 71854

3. PERMIT WRITER:

Joseph Hurt

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Tire Manufacturing (except Retreading)  
NAICS Code: 326211

5. ALL SUBMITTALS:

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
3/24/2017	Minor Modification	Install a new natural gas-fired boiler (SN-55a)

6. REVIEWER'S NOTES:

Cooper Tire & Rubber Company (AFIN: 46-00005) operates a tire manufacturing facility located at 3500 East Washington Road, Texarkana, AR 71854. Cooper submitted an application to replace Boiler #3 (SN-55) with a new 99.8 MMBtu/hr natural gas-fired boiler, Boiler #5 (SN-55a). The total permitted emission increases include 2.0E-04 tpy of Lead and 0.8 tpy of HAPs. The total permitted emission decreases include 5.9 tpy of PM/PM<sub>10</sub>, 58.9 tpy of SO<sub>2</sub>, 9.2 tpy of CO, and 29.0 tpy of NO<sub>x</sub>.

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 was last inspected on July 19, 2016 and determined to be in compliance.

8. PSD APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N

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

- *Single pollutant  $\geq 100$  tpy and on the list of 28 or single pollutant  $\geq 250$  tpy and not on list*

If yes, explain why this permit modification is not PSD.

N/A

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
GR-03 & GR-04	All Listed	NSPS Subpart BBB
SN-89	Opacity and SO <sub>2</sub>	NSPS Subpart Dc
SN-140 and SN-141	HAP	NESHAP ZZZZ
SN-55a	No specific standards have been set for natural gas-fired sources	NSPS Subpart Dc
		NESHAP Subpart DDDDD

10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

11. AMBIENT AIR EVALUATIONS:

a) Reserved.

b) Non-Criteria Pollutants:

Based on Department procedures for review of non-criteria pollutants, emissions of non-criteria pollutants are below thresholds of concern. The previous permit evaluation (below) is provided solely for reference and was not used in this current permitting action.

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?
1,1,2,2-Tetrachloroethane	6.87	0.76	0.02	PASS
1,1-Dichloroethene	19.8	2.18	0.04	PASS
1,2-Dibromo-3-Chloropropane	9.66	1.06	0.03	PASS
1,3-Butadiene	4.42	0.49	0.05	PASS
2,2,4-Trimethyl pentane	1401.5	154.2	0.16	PASS
Acetophenone	49.1	5.41	0.27	PASS
Acrylonitrile	4.34	0.48	0.01	PASS
Aniline	7.54	0.83	0.72	PASS
Benzene	1.60	0.18	0.12	PASS
Benzyl Chloride	5.18	0.57	0.01	PASS
Bis(2-Ethylhexyl)phthalate	5.00	0.55	0.19	PASS
Carbonyl Sulfide	245.7	27.0	0.21	PASS
Ethyl Acrylate	20.5	2.25	0.01	PASS
Ethyl Benzene	434.2	47.8	1.37	PASS
Glycol Ethers	100.0	11.0	0.68	PASS
Hexane	176.2	19.4	1.09	PASS
Methanol	262.1	28.8	0.01	PASS
Methyl Isobutyl Ketone	81.9	9.01	4.05	PASS
Methylene Chloride	173.7	19.1	1.49	PASS
Phenol	19.2	2.12	0.11	PASS
Selenium	0.200	0.02	0.01	PASS
Styrene	85.2	9.37	0.76	PASS
Tetrachloroethene	169.5	18.6	0.42	PASS
Toluene	75.4	8.29	2.46	PASS
Xylene	434.2	47.8	0.25	PASS
Acrolein	0.229	0.03	0.06	Model
Arsenic	0.010	0.0011	0.01	Model
Beryllium	0.00005	5.50E-06	5.13E-04	Model
Cadmium	0.002	2.20E-04	0.04	Model
Carbon Disulfide	3.11	0.34	1.96	Model
Formaldehyde	0.368	0.04	0.07	Model
Hexachlorobutadiene	0.021	0.0023	0.03	Model
Lead	0.050	0.0055	8.35E-03	Model
Mercury	0.010	0.0011	0.01	Model

2<sup>nd</sup> Tier Screening (PAIL)

AERMOD 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 ( $\mu\text{g}/\text{m}^3$ ) = 1/100 of Threshold Limit Value	Modeled Concentration ( $\mu\text{g}/\text{m}^3$ )	Pass?
Acrolein	2.29	0.52	PASS
Arsenic	0.10	0.01	PASS
Beryllium	5.00E-04	4.60E-04	PASS
Cadmium	0.02	2.65E-03	PASS
Carbon Disulfide	31.14	13.98	PASS
Formaldehyde	3.68	0.08	PASS
Hexachlorobutadiene	0.21	0.1996	PASS
Lead	0.50	0.08	PASS
Mercury	0.10	0.01	PASS

c) H<sub>2</sub>S Modeling:

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 for hydrogen sulfide.

## 12. CALCULATIONS:

SN	Emission Factor Source	Emission Factor and units	Control Equipment Type	Control Equipment Efficiency	Comments
GR-01	RMA	4.00E-04 lb PM/lb rubber 3.86E-05 lb VOC/lb rubber 7.88E-03 lb VOC/ lb silica	Baghouse	95%	RMA is the Rubber Manufacturers Association.
GR-03	MSDS NSPS	PM: 8% solids 10% overspray VOC: 7.5 gr/tread	None	None	
GR-04	Stack Test	PM: 0.0015 lb/tire VOC: 2 gr/tire	None	None	
GR-05	RMA	PM: 0.05 lb/tire VOC: 1.59E-2 lb/lb rubber	Baghouse	95.8%	
GR-06	RMA	PM: 0.10 lb/tire VOC: 1.59E-2 lb/lb rubber	Baghouse	99.2%	
GR-08	MSDS	VOC: 6.52 lb/gal ink 9.11 lb/gal thinner	None	None	
SN-07	AP-42 11.24-2	PM: 0.12 lb/ton	Baghouse	95%	

SN	Emission Factor Source	Emission Factor and units	Control Equipment Type	Control Equipment Efficiency	Comments
SN-53	AP-42	Standard Natural Gas Standard Fuel Oil	None	None	
SN-55a	AP-42	Standard Natural Gas	None	None	
SN-59	AP-42 Table 6.1.4	0.20 PM/ton Carbon Black	Dust Collector	95%	
SN-60	AP-42 Table 6.1.4	0.20 PM/ton Carbon Black	Dust Collector	95%	
SN-67	MSDS	VOC: 6.26 lb/gal (solvent) 6.28 lb/gal (cement)	None	None	
SN-68 SN-106	MSDS	VOC: 6.26 lb/gal (solvent) 0.055 lb/gal (paint)	None	None	
SN-89	AP-42 & Testing	Standard Natural Gas Standard Fuel Oil 99.7 MMBTU/hr 8760 hrs/yr (NG) 6304 hrs/yr (FO) 95.4 MCF/hr (NG) Nat. Gas Factors 10 lb PM/MMCF 1.2 lb SO <sub>2</sub> /MMCF 10 lb VOC/MMCF 84 lb CO/MMCF 73.2 lb NO <sub>x</sub> /MMCF Fuel Oil Factors: 6 lb PM/kgal 142(.03) lb SO <sub>2</sub> /kgal 0.75 lb VOC/kgal 25 lb CO/kgal 22.4 lb NO <sub>x</sub> /kgal	None	None	
SN-108	RMA	30 ton/hr throughput 70% of rubber, milled 50% compd #6a mixed 1.1E-4 lbcompd#2/lbrubber 0.00371 lbcompd#6a/lbrubber	None	None	
SN-109	RMA	VOC: 4.2E-5 lb/lb rubber	None	None	
SN-110	RMA	30 ton/hr thurput 40% of rubber, calendered 5.59E-5 lbcompd#2/lbrubber	None	None	
SN-111	RMA	VOC: 3.37E-4 lb/lb rubber	None	None	
SN-121	MSDS	Various	None	None	
SN-140 and SN-141	AP-42	See Section 3.3 Tables 3.3-1 and 3.3-2	None	None	

## 13. TESTING REQUIREMENTS:

The permit does not require testing.

## 14. MONITORING OR CEMS:

The permit does not require CEMS or other monitoring equipment.

## 15. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

Source	Recorded Item	Limit (as established in permit)	Frequency	Report (Y/N)
GR-01, SN-109, SN-111	Final Rubber Processed (Mixed & Imported)	220,000 tons/yr	Monthly	Y
GR-01, SN-109, SN-111	Silica Usage	7,000 tons/yr	Monthly	Y
GR-03, GR-04, GR-05, GR-06	Treads/Tires Processed	12,000,000 treads/yr	Monthly	Y
GR-03	VOC Emissions per Tread	7.5 grams/tread/month	Monthly	Y
	VOC Content	Listed in Table	Annually	N
GR-04	VOC Emissions of Inside Paint	1.0 grams/tread/month	Monthly	Y
	VOC Emissions of Outside Paint	1.0 grams/tread/month	Monthly	Y
GR-08	Ink Throughput	800 gallons/yr	Monthly	Y
	Solvent Throughput	100 gallons/yr	Monthly	Y
	Ink/Thinner VOC Content	Listed in Table	Annually	N
SN-53	Fuel Oil Throughput	1,388,475 gallons/yr	Monthly, as used	Y
	Sulfur Content	0.3 Weight %	As needed	N
SN-55a	Type of fuel burned and quantity of fuel burned	-	Monthly	Y
SN-59 SN-60	Carbon Black	80,000 Tons Total both sources	Monthly	Y
SN-67	Cement	650 Gallons	Monthly	Y
	Solvent	2,000 Gallons	Monthly	Y
	Solvent & Cement VOC Content	Listed in Table	Monthly	N
SN-68, SN-106	Solvent	650 Gallons	Monthly	Y
	Solvent & Paint VOC Content	Listed in Table	Annually	N

Source	Recorded Item	Limit (as established in permit)	Frequency	Report (Y/N)
SN-89	Fuel Oil Throughput	1,695,103 gallons/yr	Monthly, as used	Y
	Sulfur Content	0.3 Weight %	As Needed	N
SN-121	All HAP containing material usage	1.17 tpy Glycol ethers 0.06 tpy Toluene 0.09 tpy Xylene	Monthly	Y
Plant	All VOC containing material usage	249 tpy VOC	Monthly	Y
	MSDS (VOC & HAP Contents)	----	As needed	N
SN-140 and SN-141	Hours of operation	500 hours per calendar year	Per Event	Y

## 16. OPACITY:

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism
GR-01, GR-03 through GR-06	20	Dept Guidance	EPA Method 9
07	20	Dept Guidance	EPA Method 9
53	5	Dept Guidance-NG	EPA Method 9 Burn only Nat. Gas
53	20	Dept Guidance Fuel Oil	E[Regulation No. 19 §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and CFR Part 52, Subpart E]PA Method 9
55a	5	Dept Guidance for natural gas	EPA Method 9 Burn only Nat. Gas
89	5	Dept Guidance - NG	EPA Method 9
89	20	NSPS Dc – Fuel Oil	Continuous – CEMS
140 and 141	20%	Dept Guidance	Annual Observation

## 17. DELETED CONDITIONS:

Former SC	Justification for removal
6 & 7	These conditions were associated with the old pellet coolers (GR-02), which have been removed, and are no longer necessary.
47 - 54	These conditions were associated with the old boiler (SN-55), and are no longer necessary.
37, 41, 71, 73, & 77	These conditions pertain to a bubbled group of emissions associated with the old boiler (SN-55). This source has been removed from the bubble.
PWC 7 & 32	These conditions were compliance mechanisms or requirements for SN-55, and are no longer applicable.

## 18. GROUP A INSIGNIFICANT ACTIVITIES:

Source Name	Group A Category	Emissions (tpy)			
		VOC	PM <sub>10</sub>	HAPs	
				Single	Total
Two (2) 6,000 gallon Naphthenic Petroleum Oil Storage Tanks #1 and #4	A-3	0.074			
1,000 gallon No. 2 Fuel Oil Day Tank	A-3	<0.01			
10,000 gallon Naphthalic Petroleum Oil Storage Tank #6	A-3	0.069			
Three (3) 10,000 gallon Aromatic Petroleum Hydrocarbon Storage Tanks #8, #9, and #10	A-3	<0.01			
10,000 gallon Naphthenic Process Oil Blend Tank #29	A-3	<0.01			
Dust Ring Lube Oil Tank #12	A-3	0.02			
500 gallon Fire Pump Tank #1	A-3	<0.01			
500 gallon Fire Pump Tank #2	A-3	<0.01			
Phenyldiamine Tank #7 (10,000 gallons)	A-3	<0.01			
Steric Acid Tank #30 (10,000 gallons)	A-3	<0.01			
Hydrocarbon Resin Tank (10,000 gallons)	A-3	<0.01			
Group A-3 Total		0.172			
Quality Control and Materials testing Lab	A-5	0.02			<0.01
Group A-15 Total		0.02			<0.01
White Side Wall Protective Painters	A-9	0.25	0.27		0.061
Mold and Bladder Lube Application	A-9	<0.01			<0.01
Group A-19 Total		0.26	0.27		<0.01
Two (2) 30,000 gallon Fuel Oil Storage Tanks	A-13	<0.01			
Air Compressor #1			0.04		
Air Compressor #2			0.04		
Process Water #1			0.113		
Process Water #2			0.113		



Source Name	Group A Category	Emissions (tpy)			
		VOC	PM <sub>10</sub>	HAPs	
				Single	Total
Process Water #3			0.113		
#1 HVAC Tower			0.082		
#2 HVAC Tower			0.082		
#3 HVAC Tower			0.265		
#4 HVAC Tower			0.265		
Group A-13 Total		<0.01	1.11		

19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
0957-AOP-R15



## APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

## Fee Calculation for Major Source

Revised 03-11-16

Facility Name: Cooper Tire & Rubber Company  
 Permit Number: 957-AOP-R16  
 AFIN: 46-00005

\$/ton factor	23.93	Annual Chargeable Emissions (tpy)	449.61715
Permit Type	Minor Mod	Permit Fee \$	500

Minor Modification Fee \$	500
Minimum Modification Fee \$	1000
Renewal with Minor Modification \$	500
Check if Facility Holds an Active Minor Source or Minor Source General Permit	<input type="checkbox"/>
If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$	0
Total Permit Fee Chargeable Emissions (tpy)	-93.8
Initial Title V Permit Fee Chargeable Emissions (tpy)	

*HAPs not included in VOC or PM:* Chlorine, Hydrazine, HCl, HF, Methyl Chloroform, Methylene Chloride, Phosphine, Tetrachloroethylene, Titanium Tetrachloride

*Air Contaminants:* All air contaminants are chargeable unless they are included in other totals (e.g., H2SO4 in condensable PM, H2S in TRS, etc.)

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
PM		47.8	41.9	-5.9		
PM <sub>10</sub>		47.8	41.9	-5.9	-5.9	41.9
PM <sub>2.5</sub>		0	0	0		
SO <sub>2</sub>		125.8	66.9	-58.9	-58.9	66.9
VOC		249	249	0	0	249
CO		86	76.8	-9.2		
NO <sub>x</sub>		114	85	-29	-29	85
Lead	<input type="checkbox"/>	4.38E-02	4.40E-02	0.0002		
4-Methyl-2-Pentanone (MIBK)	<input type="checkbox"/>	14.77	14.77	0		
Acrolein	<input type="checkbox"/>	0.16688	0.16688	0		
Arsenic Compounds	<input type="checkbox"/>	0.00174	0.00174	0		
Beryllium Compounds	<input type="checkbox"/>	0.00124	0.00124	0		
Cadmium Compounds	<input type="checkbox"/>	0.002399	0.002399	0		
Hexachlorobutadiene	<input type="checkbox"/>	0.1	0.1	0		
Mercury Compounds	<input type="checkbox"/>	0.00136	0.00136	0		
Methylene Chloride	<input checked="" type="checkbox"/>	5.35415	5.35415	0	0	5.35415
Selenium Compounds	<input type="checkbox"/>	0.00617	0.00617	0		
Tetrachloroethene	<input checked="" type="checkbox"/>	1.463	1.463	0	0	1.463
Xylene	<input type="checkbox"/>	14.77032	14.77032	0		
HAPs	<input type="checkbox"/>	73.53	74.33	0.8		