

## STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0957-AOP-R20 AFIN: 46-00005

1. PERMITTING AUTHORITY:

Division 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:

Elliott Marshall

4. NAICS DESCRIPTION AND CODE:

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

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

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
7/12/2022	Minor Mod	-Increase the allowable uncoupled silica throughput at Mixer #9 (SN-134) - Re-route emissions from Mixer #9 to an existing regenerative thermal oxidizer (RTO) -Modify silica throughput limits at Mixer #7 and # 9

6. REVIEWER'S NOTES:

Cooper submitted an application to increase the allowable silica throughput at Mixer #9 (SN-134), and to re-route emissions from Mixer #9 to an existing regenerative thermal oxidizer (RTO), which is currently serving Mixer #8 (and will continue to serve Mixer

#8, SN-133). As a result of this change, the existing combined silica ingredient throughput limit at Mixer #9 and Mixer #7, 7,000 ton/12-month period, will be split into two individual limits: 11,500 tons/12-month period and 4,100 tons/12-month period, respectively. Permitted emission rates are increasing/decreasing by 1.18E-05 tpy Lead, - 1.23 tpy MIBK, -0.06 tpy Xylene and -2.0 tpy Total HAPs. Increases to VOC are accounted for in the existing Plantwide VOC limit of 464.0 tpy VOC.

A PSD analysis was conducted to ensure the SN-134 RTO project would not result in a significant emission increase. Table 1 shows the PSD applicability analysis: Projected Actual Emissions (PAE) minus Baseline Actual Emissions (BAE).

Table 1. PSD Applicability Analysis

	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	VOC
Mixer 9 (Silica Throughput, PAE)	0.23	0.23	0.23	88.14
Mixer 9 (Baseline Actuals)	0.14	0.14	0.14	91.27
Total Emission Increase from Project (PAE – BAE)	0.09	0.09	0.09	-3.13
PSD Significant Emissions Increase Threshold	<b>25</b>	<b>15</b>	<b>10</b>	<b>40</b>
Significant Emissions Increase from Project?	No	No	No	No

## 7. COMPLIANCE STATUS:

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

On September 8, 2021, DEQ personnel performed a routine compliance inspection. The inspection revealed the following violations to the air permit.

### Informal Enforcement

1. **Specific Condition #28 of Permit 0957-AOP-R17 and Specific Condition #51 of 0957-AOP-R18:** The thinner usage limit of 100 gallons from GR-08 during any consecutive twelve month period was exceeded in June 2019 and October 2020 through July 2021;
2. **Specific Condition #90 of Permit 0957-AOP-R18:** The solvent usage limit of 650 gallons at SN-68 during any consecutive twelve month period was exceeded during the period ending December 2020: and

3. **General Provision #6 of Permit # 0957-AOP-R18:** Failure to retain records of continuously measured bed temperature at the SN-133 RTO for the period of January 2, 2021, through January 19, 2021.

#### **Formal Enforcement**

1. **Specific Condition #12 of Permit 0957-AOP-R18:** Failure to meet testing requirements. Test results of a test conducted at SN-133 on January 12, 2021 was determined by DEQ personnel to be inconclusive due to the lack of operating rate data. Additionally, the bed temperature data was not included in the test report;
2. **Specific Condition #12 of Permit 0957-AOP-R18:** Failure to meet testing requirements. Test results of test conducted at SN-133 on March 24, 2021, was determined by DEQ personnel to be inconclusive due to the lack of operating rate data. Although the continuous reading of the temperature was included in the test report, it was not reconciled to give an average temperature during the test;
3. **Plantwide Condition #3 of Permit 0957-AOP-R18:** Failure to submit the compliance test results of the tests conducted on January 12, 2021, and March 24, 2021, at SN-133 within sixty (60) calendar days after completing the testing. The test reports were received by DEQ on August 4, 2021; and
4. **APC&EC Regulation 18.301:** Failure to first obtain permit before constructing and operating the internal combustion powered portable industrial vacuum that is being used to clean up carbon black spills.

The formal enforcement violations, listed above, are currently proceeding through formal enforcement channels. On January 21, 2022 an Informal/Formal enforcement letter was sent to the facility; the facility responded to the letter with some comments on June 16, 2022. On July 22, 2022 a re-proposed CAO was sent to the facility.

#### 8. PSD/GHG APPLICABILITY:

- a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N  
If yes, were GHG emission increases significant? N
- b) Is the facility categorized as a major source for PSD? Y
  - *Single pollutant  $\geq 100$  tpy and on the list of 28 or single pollutant  $\geq 250$  tpy and not on list*

If yes for 8(b), explain why this permit modification is not PSD.

As shown in "Table 1: PSD Applicability Analysis" in the reviewer's notes, emission increases associated with this project are below PSD SER thresholds.

#### 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
SN-133	VOC	PSD

## 10. UNCONSTRUCTED SOURCES:

Unconstructed Source	Permit Approval Date	Extension Requested Date	Extension Approval Date	If Greater than 18 Months without Approval, List Reason for Continued Inclusion in Permit
N/A				

## 11. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? N

(Note - permit shields are not allowed to be added, but existing ones can remain, for minor modification applications or any Rule 18 requirement.)

If yes, are applicable requirements included and specifically identified in the permit? N/A  
If not, explain why.

For any requested inapplicable regulation in the permit shield, explain the reason why it is not applicable in the table below.

Source	Inapplicable Regulation	Reason
N/A		

## 12. COMPLIANCE ASSURANCE MONITORING (CAM) – TITLE V PERMITS ONLY:

List sources potentially subject to CAM because they use a control device to achieve compliance and have pre-control emissions of at least 100 percent of the major source level. List the pollutant of concern and a brief summary of the CAM plan (temperature monitoring, CEMs, opacity monitoring, etc.) and frequency requirements of § 64.

Source	Pollutant Controlled	Cite Exemption or CAM Plan Monitoring and Frequency
N/A		

## 13. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

#### 14. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

##### a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the DEQ Air Permit Screening Modeling Instructions.

##### b) Non-Criteria Pollutants:

The facility has been reviewed under the NCAP strategy which includes any single NCAP HAP with emissions equal to or greater than 10 tpy or a TLV less than 1 mg/m<sup>3</sup>. Emergency equipment emissions are included in the evaluation of the DeMinimis level HAPs but are not modeled per ADEQ guidance.

The facility emits HAPs related to incomplete combustion and rubber processing.

Chargeable HAPs included in Fee Sheet calculations - Methylene Chloride and Tetrachloroethene.

No modeling was performed with this permit revision (R20). Hourly emissions of lead compounds, MIBK and xylene all decreased as a result of this modification.

##### 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 Division of Environmental Quality has deemed the 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?
2-Chloroacetophenone	0.316	0.0348	2.3006E-04	Pass
4-Methyl-2-Pentanone (MIBK)*	81.900	9.0090	4.7615E+00	Pass
Acrolein	0.229	0.0252	5.2488E-02	Model
Dibenzofuran	0.200	0.0220	2.0557E-03	Pass
Formaldehyde	0.370	0.0407	1.7302E-02	Pass
Hexachlorobutadiene	0.240	0.0264	2.4662E-02	Pass

Pollutant	TLV (mg/m <sup>3</sup> )	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Lead (Pb) Compounds	0.050	0.0055	3.3176E-03	Pass
Xylene*	434.192	47.7611	4.0386E+00	Pass
Arsenic	0.010	0.0011	4.6122E-05	Pass
Beryllium	0.000	0.0000	2.7673E-06	Pass
Chromium Compounds (Cr III)	0.500	0.0550	2.0054E-02	Pass
Cadmium	0.002	0.0002	4.0911E-04	Model
Cobalt	0.020	0.0022	1.4442E-03	Pass
Manganese	0.020	0.0022	8.7632E-05	Pass
Mercury	0.010	0.0011	5.9959E-05	Pass
Nickel (Ni) Compounds	0.100	0.0110	1.8560E-02	Model
Selenium	0.200	0.0220	5.5347E-06	Pass
POM - Total	0.200	0.0220	1.8355E-07	Pass

\*Total emissions > 10 tpy

## 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 Division of Environmental Quality 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?
Acrolein	2.29	0.919	Pass
Cadmium	0.02	0.00178	Pass
Nickel	1.00	0.3575	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.

## 15. CALCULATIONS:

SN	Emission Factor Source	Emission Factor and units	Control Equipment Type	Control Equipment Efficiency	Comments
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SN	Emission Factor Source	Emission Factor and units	Control Equipment Type	Control Equipment Efficiency	Comments
GR-01	RMA  Testing  AP-42 Table 1.4-1,2,3,4	lb/lb rubber: 4.02E-04 PM 3.91E-05 VOC  lb/lb silica: 1.69E-02 VOC  RTO Nat. Gas Factors 7.6 lb PM/MMCF 0.6 lb SO <sub>2</sub> /MMCF 5.5 lb VOC/MMCF 84 lb CO/MMCF 100 lb NO <sub>x</sub> /MMCF	Baghouse   RTO – Mixer #8 and #9 only	PM 95%  VOC 98% destruction 85% capture	30 ton/hr; 220,000 tpy standard rubber throughput  0.85 ton/hr; 4,100 tpy silica throughput for mixer #7  2.40 ton/hr; 11,500 tpy silica throughput for mixer #9  1.88 ton/hr; 9,000 tpy silica throughput for mixer #8  Master pass Silica VOC – 65.7% Second&Final Pass Silica VOC – 34.3%  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-53	AP-42	Standard Natural Gas	None	None	uncontrolled
SN-55a	AP-42	Standard Natural Gas	None	None	Low NO <sub>x</sub> burners
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) 0.10 lb/gal (paint)	None	None	Paint Density 10.0 lb/gal

SN	Emission Factor Source	Emission Factor and units	Control Equipment Type	Control Equipment Efficiency	Comments
SN-89	AP-42	Standard Natural Gas 97.3 MMBTU/hr 8760 hrs/yr (NG) 95.4 MCF/hr (NG) Nat. Gas Factors 7.6 lb PM/MMCF 0.6 lb SO <sub>2</sub> /MMCF 5.5 lb VOC/MMCF 84 lb CO/MMCF 50 lb NO <sub>x</sub> /MMCF	None	None	Low NO <sub>x</sub> burners
SN-108	RMA	VOC 1.1E-04 lb/lb rubber 2.57E-02 lb/lb silica	None	None	30 ton/hr; 220,000 tpy standard rubber throughput 3.33 ton/hr; 16,000 tpy silica throughput 70% of rubber, milled 33% silica rubber milled
SN-109	RMA	VOC 1.23E-05 lb/lb rubber 2.79E-04 lb/lb silica	None	None	30 ton/hr; 220,000 tpy standard rubber throughput 3.33 ton/hr; 16,000 tpy silica throughput 100% of mixed and silica rubber is extruded
SN-110	RMA	30 ton/hr 40% of rubber, calendered 5.59E-5 lbcompd#2/lb rubber	None	None	
SN-111	RMA	VOC: 3.37E-4 lb/lb rubber	None	None	
SN-121	MSDS	VOC 6.0 lb/gal	None	None	
SN-140 and SN-141	AP-42	See Section 3.3 Tables 3.3-1 and 3.3-2	None	None	500 hrs/yr each SN-140 2 MMBtu/hr SN-141 3 MMBtu/hr

## 16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
133	VOC Opacity	25A 9	Once every 60 months	Ensure PSD compliance
134	VOC	25A	Once every 60 months	Ensure destruction efficiency of RTO

## 17. MONITORING OR CEMS:

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)



SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
133	RTO Minimum *Temperature - 1500°F	Device to continuously measure and record temperature	Continuously while operating	N
134	RTO Minimum *Temperature - 1500°F	Device to continuously measure and record temperature	Continuously while operating	N

## 18. 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)
Plantwide	Final Rubber Processed (Mixed & Imported)	220,000 tons/yr	Monthly	Y
SN-51	Silica Usage	4,100 tons/yr	Monthly	Y
SN-134	Silica Usage	11,500 tons/yr	Monthly	Y
SN-133	Silica Usage	9,000 tons/yr	Monthly	Y
Plantwide	Silica Usage	24,600 tons/yr	Monthly	Y
SN-133, SN-134	Temperature of RTO	≥1500°F	Continuously while operating	N
SN-133 and SN-134 RTO	Description of why the RTO Bypass Stack was opened, reason for the outage of the RTO system, and the corrective actions taken	The permittee may only operate the RTO Bypass Stack RTO has an emergency outage, equipment malfunction, or is undergoing preventative maintenance.	Whenever the RTO Bypass Stack is opened	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
GR-04	VOC Emissions of Inside Paint	1.0 grams/tread/month	Monthly	Y

Source	Recorded Item	Limit (as established in permit)	Frequency	Report (Y/N)
	VOC Emissions of Outside Paint	1.0 grams/tread/month	Monthly	Y
GR-08	Ink Throughput	2,800 gallons/yr	Monthly	Y
	Solvent Throughput	200 gallons/yr	Monthly	Y
	Ink/Thinner VOC Content	Listed in Table	Annually	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	1,800 Gallons	Monthly	Y
	Solvent & Cement VOC Content	Listed in Table	Monthly	N
SN-68, SN-106	Solvent	700 Gallons	Monthly	Y
	Paint	1,500 gallons	Monthly	Y
	Solvent & Paint VOC Content	Listed in Table	Annually	N
SN-121	All HAP containing material usage	1.17 tpy Glycol ethers 0.09 tpy Toluene 0.09 tpy Xylene	Monthly	Y
Plant	All VOC containing material usage	464 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

## 19. OPACITY:

SN	Opacity %	Justification	Compliance Mechanism
GR-01 (RTO), GR-03 through GR-06, and GR-09	20	Division of Environmental Quality Guidance	Weekly observation Daily during off-line maintenance
07	20	Division of Environmental Quality Guidance	Weekly observation

SN	Opacity %	Justification	Compliance Mechanism
53	5	Division of Environmental Quality Guidance-NG	Burn only Nat. Gas
55a	5	Division of Environmental Quality Guidance for natural gas	EPA Method 9 Burn only Nat. Gas
89	5	Division of Environmental Quality Guidance - NG	Burn only Nat. Gas
140 and 141	20%	Division of Environmental Quality Guidance	Annual Observation

## 20. DELETED CONDITIONS:

Former SC	Justification for removal
	N/A

## 21. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

Source Name	Group A Category	Emissions (tpy)			
		VOC	PM <sub>10</sub>	HAPs	
				Single	Total
Two (2) 10,000 gallon Naphthenic Petroleum Oil Storage Tanks #1 and #4	A-3	0.092			
10,000 gallon Naphthalic Petroleum Oil Storage Tank #6	A-3	0.038			
Three (3) 10,000 gallon Aromatic Petroleum Hydrocarbon Storage Tanks #8, #9, and #10	A-3	.0009			
10,000 gallon Naphthenic Process Oil Blend Tank #29	A-3	0.005			
Dust Ring Lube Oil Tank #12	A-3	0.02			
500 gallon Fire Pump Tank #1	A-3	0.0001			
500 gallon Fire Pump Tank #2	A-3	0.0001			
Phenyldiamine Tank #7 (10,000 gallons)	A-3	0.038			
Steric Acid Tank #30 (10, 000 gallons)	A-3	0.010			
Hydrocarbon Resin Tank #31(10,000 gallons)	A-3	0.012			
Group A-3 Total		0.21			
Quality Control and Materials testing Lab	A-5	0.02			0.00002
Group A-15 Total		0.02			0.00002
White Side Wall Protective Painters	A-9	0.25	0.28		0.062
Mold and Bladder Lube Application	A-9	0.0013			0.003
Group A-19 Total		0.26	0.28		0.065

Source Name	Group A Category	Emissions (tpy)			
		VOC	PM <sub>10</sub>	HAPs	
				Single	Total
Two (2) 30,000 gallon Fuel Oil Storage Tanks – Empty – Not in service	A-13	<0.01			
Air Compressor #1			0.04		
Air Compressor #2			0.04		
Process Water #1			0.113		
Process Water #2			0.113		
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		

## 22. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
0957-AOP-R19

## APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

## Fee Calculation for Major Source

Revised 03-11-16

Facility Name: Cooper Tire & Rubber Company  
 Permit Number: 0957-AOP-R20  
 AFIN: 46-00005

\$/ton factor	25.13	Annual Chargeable Emissions (tpy)	567.99
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

☐

If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$ 0

Total Permit Fee Chargeable Emissions (tpy) 0

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 condensible 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		30.6	30.6	0		
PM <sub>10</sub>		30.6	30.6	0	0	30.6
PM <sub>2.5</sub>		0	0	0		
SO <sub>2</sub>		1.3	1.3	0	0	1.3
VOC		464	464	0	0	464
CO		86	86	0		
NO <sub>x</sub>		64.3	64.3	0	0	64.3
Lead Compounds	<input type="checkbox"/>	8.50E-03	8.51E-03	1.18E-05		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
MIBK	<input type="checkbox"/>	16.55	15.32	-1.23		
Xylene	<input type="checkbox"/>	14.84	14.78	-0.06		
Total HAPs	<input type="checkbox"/>	80.17	78.17	-2		
Methylene Chloride	<input checked="" type="checkbox"/>	6.34	6.34	0	0	6.34
Tetrachloroethene	<input checked="" type="checkbox"/>	1.45	1.45	0	0	1.45