

## STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0957-AOP-R23 AFIN: 46-00005

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Goodyear 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
10/25/2024	Modification	-Reduce DRE from 98% to 96% at SN-133/134 RTO and update VOC emissions. -Correct VOC emissions total for Mixer#8 in SC#1. - Correct VOC emissions total for Mixers #1-7 and #9 in SC#3.

6. REVIEWER'S NOTES:

This application was submitted to:

1. Reduce the Destruction Removal Efficiency (DRE) of the RTO associated with Mixer#8 (SN-133) and Mixer #9 (SN-134) and update associated Specific Conditions: #2, #12 and #17.
2. Permit # 0957-AOP-R22 permit erroneously only listed the “stack” portion of emissions for SN-133 in Specific Condition #1 (SC#1). Total emissions from Mixer #8 after the DRE reduction are 29.5 lb/hr VOC and 70.7 tpy VOC. Of this amount, 7.7 lb/hr and 18.4 tpy will be emitted through the stack, and the remaining 21.8 lb/hr and 52.3 tpy is released as fugitive emissions.
3. Since Permit No. 0957-AOP-R18 Mixer #8 emissions have been erroneously grouped with emissions from Mixers #1-7 and #9 in SC#3. Correcting this results in the total VOC emissions limit at SC#3 being reduced from 218.4 tpy in R22 to the correct value of 171.2 in this revision.

Permitted emission rates are increasing by 3.5 tpy VOC.

Retroactive PSD review resulted in a significant emission increase of VOC at SN-133. Previous BACT determinations for Mixer #8 were revised downward for RTO DRE (98% to 96%), and ambient impacts were updated to indicate that the ozone SIL will not be exceeded for the project, and as such, the project would not be expected to adversely impact the surrounding air quality. Mixer #9 retroactive PSD review did not result in any significant emission rate increases.

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 has an active compliance plan as established by CAO LIS 24-087

This permitting action serves as the corrective action for the CAO. Per the CAO the respondent was required to submit a permit application to adjust permitted emission rates for VOC at SN-133 as the result of a failed emission test at SN-133.

This permitting action reduces the DRE from 98% to 96% at SN-133/134 RTO. The CAO originated from the facility failing stack tests and not meeting the 98% DRE limit at the RTO.

8. PSD/GHG APPLICABILITY:

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

## 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
SN-144	VOC	PSD
SN-145	CO, NO <sub>x</sub> , PM	NESHAP ZZZZ, NSPS IIII
SN-146	CO, NO <sub>x</sub> , VOC	NESHAP ZZZZ, NSPS JJJJ

## 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  
If not, explain why.

## 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
SN-144	VOC	Since SN-144 is not a “large pollutant-specific emission unit” as defined in Part 64, CAM is not

Source	Pollutant Controlled	Cite Exemption or CAM Plan Monitoring and Frequency
		addressed until the first renewal application after project approval.

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:

Emergency equipment emissions are included in the evaluation of 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.

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 ( $\text{mg}/\text{m}^3$ ), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Hourly totals were updated to include the addition of SN-146, but no modeling was performed because SN-146 is an emergency generator.

No modeling was performed for this revision.

Pollutant	TLV (mg/m <sup>3</sup> )	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
2-Chloroacetophenone	0.316	0.0348	8.55E-04	Pass
4-Methyl-2-Pentanone (MIBK)*	81.900	9.0090	5.51	Pass
Acrolein	0.229	0.0252	7.22E-02	Model
Dibenzofuran	0.200	0.0220	2.59E-03	Pass
Formaldehyde	1.5	0.165	0.1335	Pass
Hexachlorobutadiene	0.213	0.0234	3.29E-02	Model
Lead (Pb) Compounds	0.050	0.0055	6.24E-03	Model
Xylene*	434.192	47.7611	4.2713	Pass
Arsenic	0.010	0.0011	6.87E-05	Pass
Beryllium	0.00005	0.0000055	2.80E-06	Pass
Chromium Compounds	0.5	0.055	2.57E-02	Pass
Cadmium	0.002	0.00022	9.29E-04	Model
Cobalt	0.020	0.0022	1.71E-03	Pass
Manganese	0.020	0.0022	1.03E-03	Pass
Mercury	0.010	0.0011	5.13E-04	Pass
Nickel (Ni) Compounds	0.100	0.0110	2.31E-02	Model
Selenium	0.200	0.0220	2.56E-03	Pass
POM/PAH - Total	0.200	0.0220	2.28E-04	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	2.0	1.65269	Yes
Cadmium	0.02	0.00278	Yes
Hexachlorobutadiene	2.13	0.42553	Yes
Lead (Pb) Compounds	0.5	0.03752	Yes
Nickel	1.0	0.47504	Yes

### a) H<sub>2</sub>S Modeling:

A.C.A. §8-3-103 requires hydrogen sulfide emissions to meet specific ambient standards. Many sources are exempt from this regulation, refer to the Arkansas Code for details.

Is the facility exempt from the H<sub>2</sub>S Standards

Y

If exempt, explain: No H<sub>2</sub>S emissions

## 15. CALCULATIONS:

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   RTO – Mixer #10	PM 95%   VOC 96% destruction 85% capture   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  3.78 ton/hr; 22,680 tpy silica throughput for Mixer #10  Master pass Silica VOC – 65.7% Second&Final Pass Silica VOC – 34.3%  65.7% of VOC emissions are released in the master pass of rubber processed with uncoupled silica. Only the master pass emissions are captured and controlled by the RTO, with an estimated 85% capture efficiency.  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	Emission Factor Source	Emission Factor and units	Control Equipment Type	Control Equipment Efficiency	Comments
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) 4.5 lb/gal (paint)	None	None	Paint Density 10.0 lb/gal
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	40 ton/hr; 307,600 tpy standard rubber throughput 8.9 ton/hr; 47,280 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	40 ton/hr; 307,600 tpy standard rubber throughput 8.9 ton/hr; 47,280 tpy silica throughput 100% of mixed and silica rubber is extruded
SN-110	RMA	40 ton/hr 40% of rubber, calendared 5.59E-5 lbcompd#2/lbrubber	None	None	
SN-111	RMA	VOC: 3.37E-4 lb/lb rubber	None	None	
SN-121	MSDS	VOC 7.5 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
SN-145	NSPS III,  AP-42 Chapter 3.3	<u>lb/hp-hr</u> NO <sub>x</sub> : 1.87E-02 CO: 1.52E-02 PM <sub>10</sub> : 8.82E-04  <u>lb/MMBtu</u> VOC: 3.60E-01 SO <sub>2</sub> : 2.90E-01	Diesel Particulate Filter	None	8,760 hr/yr, 155 hp.  7,000 Btu/scf conversion factor per AP-42

SN	Emission Factor Source	Emission Factor and units	Control Equipment Type	Control Equipment Efficiency	Comments
SN-146	NSPS JJJJ,  AP-42 Chapter 3.2-2	<u>lb/MMBtu</u> PM/PM <sub>10</sub> : 7.71E-05 SO <sub>2</sub> : 5.88E-04 VOC: 2.73E-01 CO: 1.09 NO <sub>x</sub> : 0.847	None	None	204 hp, 500 hr/yr

## 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
144	VOC CO NO <sub>x</sub>	25A 10 7E	Once every 60 months	Ensure PSD compliance

## 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
144	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)	307,600 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
SN-144	Silica Usage	22,680 tons/yr	Monthly	Y
SN-133, SN-134, SN-144	Temperature of RTO	$\geq 1500^{\circ}\text{F}$	Continuously while operating	N
SN-144	Rubber VOC content	3.91E-05 lb VOC/lb rubber	Monthly	N
SN-133, SN-134, SN-144 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	16,000,000 treads/yr	Monthly	Y
GR-03	VOC Emissions per Tread	7.5 grams/tread/month	Monthly	Y
GR-04	VOC Emissions of Inside Paint	1.2 grams/tread/month	Monthly	Y
	VOC Emissions of Outside Paint	9.3 grams/tread/month	Monthly	Y
GR-08	Ink Throughput	2,800 gallons/yr	Monthly	Y
	Solvent Throughput	400 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

Source	Recorded Item	Limit (as established in permit)	Frequency	Report (Y/N)
SN-59 SN-60	Carbon Black	80,000 Tons Total both sources	Monthly	Y
SN-67	Cement	1,000 Gallons	Monthly	Y
	Solvent	1,800 Gallons	Monthly	Y
	Solvent & Cement VOC Content	Listed in Table	Monthly	N
SN-68, SN-106	Solvent	1,500 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
SN-140 and SN-141	Hours of operation	500 hours per calendar year	Per Event	Y
SN-145	Maintenance Conducted	N/A	Per Event	N
SN-146	Hours of operation	500 hours per calendar year	Monthly	N
	NSPS JJJJ records	Records required by 60.4245(a)(1-4)	As Required	N

## 19. OPACITY:

SN	Opacity %	Justification	Compliance Mechanism
GR-01, GR-03 through GR-06, and GR-09	20	Division of Environmental Quality Guidance	Weekly observation Daily during off-line maintenance
GR-01 with RTO operating	5	Division of Environmental Quality Guidance	Weekly observation
07	20	Division of Environmental Quality Guidance	Weekly observation
53	5	Division of Environmental Quality Guidance-NG	Burn only Nat. Gas

SN	Opacity %	Justification	Compliance Mechanism
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
145	20%	Division of Environmental Quality Guidance	Annual Observation
146	5%	Division of Environmental Quality Guidance	Annual Observation, only use natural gas as fuel

## 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

Source Name	Group A Category	Emissions (tpy)			
		VOC	PM <sub>10</sub>	HAPs	
				Single	Total
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
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-R22

## APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

## Fee Calculation for Major Source

Revised 03-11-16

Facility Name: Goodyear Tire & Rubber Company  
 Permit Number: 0957-AOP-R23  
 AFIN: 46-00005

\$/ton factor	28.14	Annual Chargeable Emissions (tpy)	1402.09
Permit Type	Modification	Permit Fee \$	1000

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) 3.5

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		38.8	38.8	0		
PM <sub>10</sub>		38.8	38.8	0	0	38.8
PM <sub>2.5</sub>		0	0	0		
SO <sub>2</sub>		2.8	2.8	0	0	2.8
VOC		1268.5	1,272.00	3.5	3.5	1272
CO		97.7	97.7	0		
NO <sub>x</sub>		78.4	78.4	0	0	78.4
Lead Compounds	<input type="checkbox"/>	1.12E-02	1.12E-02	0		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
MIBK	<input type="checkbox"/>	21.1	21.1	0		
Xylene	<input type="checkbox"/>	21.22	21.22	0		
Total HAPs	<input type="checkbox"/>	115.44	115.44	0		
Methylene Chloride	<input checked="" type="checkbox"/>	8.06	8.06	0	0	8.06
Tetrachloroethene	<input checked="" type="checkbox"/>	2.03	2.03	0	0	2.03