

STATEMENT OF BASIS

for the issuance of Final Air Permit # 957-AOP-R6

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

The Cooper Tire Company, A Division of Cooper Tire & Rubber Company
3500 East Washington Road
Texarkana, Arkansas 71854

3. PERMIT WRITER:

Amanda Leamons

4. PROCESS DESCRIPTION AND SIC CODE:

NAICS Description: Tire Manufacturing
NAICS Code: 326211

5. SUBMITTAL: 4/24/06, 4/25/06, 5/23/06, 6/22/06, 7/12/06, 7/27/06, 10/06/06, 11/09/06

6. REVIEWER'S NOTES:

Cooper Tire & Rubber Company (Cooper) operates a tire manufacturing plant in Texarkana, Arkansas. This revision to Cooper's air permit incorporates two minor modifications and a significant modification at the facility. During the Draft Permit Comment period the facility revised several source calculations. The fuel oil limit requested in the application was decreased, the fuel oil bubble was removed, the sulfur content of 0.5% in fuel oil was reduced to 0.3%, HAPs previously unpermitted at the boilers are now permitted. The facility requested the inclusion of several throughput limits, as a result plantwide limits for particulate and HAPs were removed and the limits were applied to specific sources since the pollutant emissions are tied to the throughput limits.

The first minor modification allows the replacement the existing fabric filter dust collector with a new wet scrubber at the Pellet Coolers (GR-02). The emission limits for GR-02 will remain 5.3 tpy of PM₁₀.

The second minor modification allows the installation of an additional spray booth (SN-122) in the Green Tire Spray Booth Operations at GR-04. This booth will be primarily utilized for light duty and sport truck tires. This booth will also act as a back-up to the other booths when they are shut down for preventive maintenance. This modification has potential emissions of 7.35 tpy of VOC and 2.5 tpy of PM/PM₁₀; however, there will not be an increase in permitted plantwide PM emissions due to this modification.

Lastly, the significant modification allows Cooper to de-rate Boiler #4 (SN-89). The boiler was previously permitted as having a maximum heat input capacity of 118 MMBtu/hr; however, the actual heat rating is 108 MMBtu/hr while burning natural gas and 103.7 MMBtu/hr while burning low sulfur fuel oil. With this modification Cooper will reduce the heat input rating from 103.7 MMBTU/hr to 95 MMBtu/hr while burning Fuel Oil No. 2. The boiler will retain the capacity of 108 MMBtu/hr for burning natural gas. The oil train valve trim will be modified to limit the flow of fuel oil to the burner. The oil flow meter and air flow control will be re-calibrated to the new pressure settings and control valve specifications. Once the de-rating for the boiler for fuel oil is completed, the boiler will still be subject to portions of 40 CFR Subpart Db when firing natural gas and subject to Subpart Dc when firing No. 2 Fuel Oil.

As a result of the described modifications, updated AP-42 emission factors and calculation corrections made during the comment period, the overall annual permitted emissions will decrease 3.2 tons of SO₂ and 38 tons PM/PM₁₀ and increase 6.4 tons of CO and 9.9 of NO_x.

7. COMPLIANCE STATUS: The following summarizes the current compliance status of the facility including active/pending enforcement actions and recent compliance activities and issues

There is a CAO in routing for Cooper Tire. Based on the November 09, 2005 inspection findings, Cooper exceeded the monthly limit of 7.5 grams/tread/month by 0.72 grams/tread/month in April of 2005 and by 0.46 grams/tread/month in September of 2005 (did not exceed the NSPS Subpart BBB limit of 10 grams/tread/month). At this time the CAO has not been signed or issued.

8. APPLICABLE REGULATIONS:

A. Applicability

Did the facility undergo PSD review in this permit (i.e. BACT, Modeling, etc.)?		<u> N </u>
Has this facility undergone PSD review in the past? (Y/N)	<u> N </u>	Permit # : <u> N/A </u>
Is this facility categorized as a major source? (Y/N)	<u> N </u>	
≥ 100 tpy and on the list of 28 (100 tpy)? (Y/N)	<u> N </u>	

≥ 250 tpy all other (Y/N) N

B. PSD Netting

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

C. Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation
GR-03 & GR-04	All Listed	NSPS Subpart BBB
SN-89	NO _x Opacity and SO ₂	NSPS Subpart Db NSPS Subpart Dc

9. EMISSION CHANGES:

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

Plantwide Permitted Emissions (ton/yr)			
Pollutant	Air Permit 957-AOP-R5	Air Permit 957-AOP-R6	Change
PM/PM ₁₀	92	54	-38
SO ₂	128.7	125.5	-3.2
VOC	249	249	0
CO	79.9	86.3	6.4
NO _x	99.9	109.8	9.9
1,1,2,2- Tetrachloroethane*	0	0.06	0.06
1-Dichloroethene (Vinylidene Chloride)*	0.16	0.16	0
1,2 Dibromo-3 Chloropropane*	0.11	0.11	0
1,3 Butadiene*	0.18	0.16	-0.02
2-Butanone	0	1.11	1.11
4-Methyl-2-Pentanone (MIK)*	13.89	13.89	0
Acetophenone*	0.96	0.94	-0.02

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Plantwide Permitted Emissions (ton/yr)			
Pollutant	Air Permit 957-AOP-R5	Air Permit 957-AOP-R6	Change
Acrolein*	0.2	0.19	-0.01
Aniline*	2.49	2.58	0.09
Arsenic**	0	0.01	0.01
Benzyl Chloride*	0.02	0.02	0
Beryllium**	0	0.001	0.001
bis(2-Ethylhexyl)phthalate*	0	0.53	0.53
Cadmium Compounds**	0	0.01	0.01
Carbon Disulfide*	7.84	7.83	-0.01
Carbonyl Sulfide *	0.71	0.71	0
Ethylbenzene*	5.71	5.7	-0.01
Formaldehyde	0	0.14	0.14
Glycol Ethers*	2.67	2.67	0
Hexachlorobutadiene*	0	0.108	0.108
Hexane*	2.74	2.77	0.03
Isooctane*	0	0.43	0.43
Lead Compounds*	0.02	0.02	0
Methylene Chloride	5.47	6.11	0.64
Mercury**	0	0.01	0.01
Naphthalene*	0	1.78	1.78
Phenol*	0.26	0.24	-0.02
Selenium**	0	0.01	0.01
Styrene*	2.4	2.38	-0.02
Tetrachloroethylene (127-18-4)*	0	1.71	1.71
Toluene*	9.63	10.03	0.4
Xylene* (m,o, & p isomers)	17.29	17.25	-0.04

* HAP included in VOC or PM totals.

10. MODELING:

A. Criteria Pollutants

Pollutant	Emission Rate (lb/hr)	NAAQS Standard ($\mu\text{g}/\text{m}^3$)	Averaging Time	Highest Concentration ($\mu\text{g}/\text{m}^3$)	% of NAAQS
PM ₁₀	21.0	50	Annual	14.28 (38.28)**	29%
		150	24-hour	75.96 (122.96)**	51%
SO ₂	82	80	Annual	6.58 (11.58)**	8%
		1,300	3-hour	172.3 (203.3)**	13%
		365	24-hour	67.55 (91.55)**	18.5%
NO _x	99.9	100	Annual	2.89 (27.89)**	3%
VOC	280.7	0.12 ppm	1-hour (ppm)	0.0298 ppm (0.104 ppm)**	25%
CO	*	10,000	8-hour	-	0%
		40,000	1-hour	-	0%

* Emissions are below 100 tpy and do not warrant modeling at this time.

** Values in parenthesis include 2003 background concentrations.

B. 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 PAER was deemed by the Department to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m^3), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = 0.11*TLV	Proposed lb/hr	Pass?
1,1,2,2-Tetrachloroethane	6.87	0.76	0.02	YES
1,1-Dichloroethene (Vinylidene Chloride)*	19.83	2.18	0.04	YES
1,2 Dibromo-3Chloropropane*	0.0097	0.0011	0.025	NO
1,3 Butadiene	4.4	0.484	0.04	YES
2-Butanone (78-93-3) (MEK)	589.8	64.9	0.257	YES

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Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11*TLV	Proposed lb/hr	Pass?
4-Methyl-2Pentanone	417	45.87	3.18	YES
Acetophenone	49	5.39	0.22	YES
Acrolein	0.23	0.0253	0.05	NO
Aniline	7.6	0.836	0.67	YES
Arsenic	0.01	0.0011	0.001	YES
Benzene	1.60	0.176	0.057	YES
Benzyl Chloride	5.18	0.57	0.01	YES
Beryllium	0.002	0.00022	0.001	NO
bis(2-ethylhexyl)phthalate (117-81-7) (DEHP)	5	0.55	0.13	YES
Cadmium Compounds	0.01	0.0011	0.001	YES
Carbon Disulfide	31	3.41	1.80	YES
Carbonyl Sulfide	4.2	0.462	0.17	YES
Ethylbenzene	434	47.74	1.32	YES
Formaldehyde	0.92	0.101	0.064	YES
Glycol Ethers	17	1.87	0.68	YES
Hexachlorobutadiene	0.22	0.0242	0.025	NO
Hexane	1762	193.86	0.66	YES
Isooctane (540-84-1)	350	38.5	0.12	Yes
Lead Compounds	0.05	0.0055	0.008	NO
Mercury	0.1	0.011	0.001	YES
Methylene chloride (MeCl)	174	19.14	1.40	YES
Naphthalene	5.66	0.62	0.405	YES
Phenol	19	2.09	0.06	YES
Selenium	0.2	0.022	0.01	YES
Styrene	213	23.43	0.55	YES
Tetrachloroethylene (127-18-4) (Perchloroethylene)	169.5	18.65	0.391	YES
Toluene	188	20.68	2.33	YES
Xylene (95-47-6 & 1330-20-7)	434	47.74	3.95	YES

2nd Tier Screening (PAIL)

ISCST3/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 was 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 TLV	Modeled lb/hr	Proposed lb/hr	Modeled Conc. ($\mu\text{g}/\text{m}^3$)	Pass?
Acrolein	2.3	0.19	0.05	1.58	YES
1,2 Dibromo- 3Chloropropane	0.097	0.03	0.025	0.094	YES
Benzene*	5	0.057	0.057	0.53	YES
Beryllium*	0.02	0.001	0.001	0.001	YES
Hexachlorobutadiene*	2.2	0.025	0.025	0.308	YES
Lead Compounds*	0.50	0.008	0.008	0.141	YES

**due to increases during comment period, the pollutants were screened using AERMOD (April 2007)*

11. 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	Baghouse	95%	RMA is the Rubber Manufacturers Association.
GR-02	RMA	4.00E-04 lb _{PM} /lb rubber	Baghouse	95%	
	RMA	4.00E-04 lb _{PM} /lb rubber	Wet Scrubber	95%	
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%	

SN	Emission Factor Source	Emission Factor and units	Control Equipment Type	Control Equipment Efficiency	Comments
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 Standard Fuel Oil	None	None	
SN-55	AP-42	Standard Natural Gas Standard Fuel Oil	None	None	
SN-67	MSDS	VOC: 6.114 lb/gal 6.28 lb/gal (cement)	None	None	
SN-68 SN-106	MSDS	VOC: 6.114 lb/gal 0.5406 lb/gal (paint)	None	None	
SN-89	AP-42	Standard Natural Gas Standard Fuel Oil	None	None	
SN-109	RMA	VOC: 4.2E-5 lb/lb rubber	None	None	
SN-111	RMA	VOC: 3.37E-4 lb/lb rubber	None	None	
SN-121	MSDS	Various	None	None	

12. TESTING REQUIREMENTS:

This permit requires no stack testing.

13. MONITORING OR CEMS:

The following are parameters that must be monitored with CEMs or other monitoring equipment (temperature, pressure differential, etc), frequency of recording and whether records are needed to be included in any annual, semiannual or other reports.

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SN	Parameter or Pollutant to be Monitored	Method of Monitoring (CEM, Pressure Gauge, etc)	Frequency*	Report (Y/N)**
89	NO _x	PEMS	Continuously	N

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

** Indicates whether the parameter needs to be included in reports

14. 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.

Source	Recorded Item	Limit (as established in permit)	Frequency	Report (Y/N)
GR-01, SN-109, SN-111	Final Rubber Processed (Mixed & Imported)	180,000 tons/yr	monthly	Y
GR-03, GR-04, GR-05, GR-06	Treads/Tires Processed	15,000,000 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-55	Fuel Oil Throughput	2,766,950 gallons/yr	Monthly, as used	Y
	Sulfur Content	0.3 Weight %	As needed	N

Source	Recorded Item	Limit (as established in permit)	Frequency	Report (Y/N)
SN-59	Carbon Black	55,000 Tons	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
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

15. OPACITY:

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism
GR-01 through GR-06	20	Dept Guidance	EPA Method 9
GR-02 (SN-61 only)	5	Dept Guidance – Wet Scrubber Control	CPMS
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-

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism
			203 as referenced by §8-4-304 and §8-4-311, and CFR Part 52, Subpart E/PA Method 9
55	5	Dept Guidance –NG	EPA Method 9 Burn only Nat. Gas
55	20	Dept Guidance Fuel Oil	EPA Method 9
89	5	Dept Guidance - NG	EPA Method 9
89	20	NSPS Dc – Fuel Oil	Continuous - CEMS

16. DELETED CONDITIONS:

The following Specific Conditions were included in the previous permit, but deleted for the current permitting action.

Former S.C.	Justification for Removal
Plantwide 9&10	Bubbled Fuel Oil limit replaced with specific limits at each of the 3 boilers.
Plantwide 12, 15-18	Plantwide particulate and HAP limits removed and replaced with source specific emission limits and corresponding throughput limits.

17. VOIDED, SUPERSEDED OR SUBSUMED PERMITS:

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

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18. CONCURRENCE BY:

The following supervisor concurs with the permitting decision:

 David Triplett, P.E.