

STATEMENT OF BASIS

For the issuance of Air Permit # 0378-AR-17 AFIN: 04-00111

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Gates Corporation - Siloam Springs
1801 North Lincoln
Siloam Springs, Arkansas 72761

3. PERMIT WRITER:

Bart Patton

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Rubber and Plastics Hoses and Belting Manufacturing
NAICS Code: 326220

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
3/15/2018	De Minimis	Add boilers SN-18 and SN-19

6. REVIEWER'S NOTES:

The facility submitted a de minimis modification application to add new boilers SN-18 and SN-19.

Permitted annual emissions increased as follows: 2.4 tpy PM/PM₁₀, 0.2 tpy SO₂, 1.2 tpy VOC, 2.6 tpy CO, 11.6 tpy NO_x, 0.60 tpy Single HAP, and 0.62 Total HAPs.

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 May 25, 2017 and was found to be in compliance. There are no pending enforcement actions.

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/A

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

- *Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 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)
15, 18, 19	N/A	NSPS 40 CFR Part 60 Subpart Dc
16, 17	HAPs	NESHAP 40 CFR Part 63 Subpart ZZZZ

SN-18 and 19 were approved for installation and operation at Permit# 0378-AR-17. At that time, they were evaluated under NESHAP JJJJJJ. They were found not to be subject to that subpart because they were approved to burn natural gas only, and thus meet the subpart's definition of gas-fired boilers (see 40 C.F.R. §63.11237), a category not subject to the subpart (see 40 C.F.R. §63.11195(e)).

10. PERMIT SHIELD – TITLE V PERMITS ONLY:

This section is not applicable.

11. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

12. AMBIENT AIR EVALUATIONS:

a) Reserved.

b) Non-Criteria Pollutants:

The non-criteria pollutants listed below were last evaluated at R15. Based on Department procedures for review of non-criteria pollutants, emissions of all other non-criteria pollutants are below thresholds of concern.

1st 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 (mg/m^3), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = $0.11 \times \text{TLV}$	Proposed lb/hr	Pass?
Acetophenone	49.14	5.406	12.301	N
Acrolein	0.23	0.025	0.068	N
Aniline	7.62	0.838	0.13	Y
Benzene	1.60	0.176	0.32	N
1,3-Butadiene	4.42	0.487	0.36	Y
Carbon Disulfide	3.11	0.34	28.38	N
Cumene	245.79	27.04	0.239	Y
DEHP (Bis(2-ethylhexyl) phthalate)	5.00	0.55	0.57	N
Isooctane (2,2,4-Trimethylpentane)	1400.27	154.03	0.12	Y
Methylene Chloride (dichloromethane)	173.68	19.11	0.84	Y
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	81.93	9.01	1.05	Y
Hexane	176.24	19.39	0.91	Y
Phenol	19.25	2.12	0.132	Y

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Propylene oxide	1.42	0.16	0.872	N
Styrene	85.20	9.37	0.0289	Y
Tetrachloroethylene	169.53	18.65	1.4587	Y
Toluene	188.40	20.73	7.7806693	Y
2-Chloro-1,3- Butadiene (chloroprene)	36.21	3.98	0.832	Y
Nickel	1.50	0.17	0.0934281	Y
m-Xylene + p- Xylene	434.19	47.76	1.0929	Y
Cadmium Compounds	0.002	2.2E-4	0.0015495	N
Lead	0.05	6.03E-3	0.0162	N
Carbonyl Sulfide	12.28	1.35	3.3229	N

2nd 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 (µg/m ³) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/m ³)	Pass?
Acetophenone	491.4	81.67	Yes
Acrolein	2.3	0.41	Yes
Benzene	16.0	1.86	Yes
DEHP (Bis(2-ethylhexyl) phthalate)	50.0	3.36	Yes
Carbon Disulfide*	175	169.10	Yes
Propylene Oxide	14.2	4.77	Yes
Cadmium Compounds	0.02	0.0105	Yes
Lead	0.5	0.149	Yes
Carbonyl Sulfide	122.8	18.13	Yes

*The PAIL for Carbon Disulfide is based on an 1/4th of the RFC Value (which is 700 µg/m³). 1/4th of the RFC = 175 µg/m³. The PAIL in this instance is compared to the annual concentration – which is equal to 169.10 µg/m³.

c) No other modeling was required.

13. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01, 02	AP-42 1.4 (Natural Gas) HAPs Calculated in Application	NO _x = 100 lb/MMscf CO= 84 lb/MMscf PM10= 7.6 lb/MMscf SO ₂ = 0.6 lb/MMscf VOC= 5.5 lb/MMscf	None	NA	40.8 MMBtu/hr
01, 02	AP-42 1.3 (#2 Fuel Oil) HAPs Calculated in Application	NO _x = 20 lb/kgal CO= 5 lb/kgal PM/PM ₁₀ = 3.3 lb/kgal SO ₂ = 71 lb/kgal VOC= 0.252 lb/kgal	None	NA	40.8 MMBtu/hr
08	Material balance	-	-	-	-
09	AP-42 Table 4.12-9 HAPs Calculated in Application`	Listed in excel spreadsheet on EPA website. Worst Case factors were used.	None	NA	
10	AP-42 Table 4.12-10	VOC – 2.94E-03 HAPS – Listed in excel spreadsheet on EPA website.	None	NA	Units are lbs/lb rubber processed
11	AP-42 Table 4.12-12	EF's listed in excel spreadsheet on EPA website.	Cyclones + ESP	99%	
15	AP-42 1.4 (Natural Gas) HAPs Calculated in Application	NO _x = 100 lb/MMscf CO= 84 lb/MMscf PM10= 7.6 lb/MMscf SO ₂ = 0.6 lb/MMscf VOC= 5.5 lb/MMscf	None	N/A	29.2 MMBtu/hr
16	AP-42 3.2-3 HAPs Calculated in Application	PM ₁₀ = 1.94E-2 lb/MMbtu SO ₂ = 5.88E-4 lb/MMbtu VOC= 0.36 lb/MMbtu CO= 3.51 lb/MMbtu NO _x = 100 lb/MMbtu	None	N/A	112 bhp 4S- RB SI Emergency Generator (Installed 2002)

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
17	AP-42 3.3-1 3.3-2 HAPs Calculated in Application	PM ₁₀ = 2.2E-3 lb/hp-hr SO ₂ = 2.05E-3 lb/hp-hr VOC= 2.514E-3 lb/hp-hr CO= 6.68E-3 lb/hp-hr NO _x = 0.031 lb/hp-hr	None	N/A	185 bhp CI Emergency Fire Pump Diesel Engine (Installed 1978)
18, 19	Cleaver Brooks vendor data; AP-42, Table 1.4-3	lb/MMBtu: PM/PM ₁₀ = 0.00735 SO ₂ = 0.00058 VOC= 0.003559 CO= 0.0075 NO _x = 0.035 lb/10 ⁶ scf: 1.8 single HAP 1.881699 total HAP	None	N/A	37.237 MMBtu/hr. 0.001 MMBtu/scf. 8,760 hrs. Emergency Fire Pump Diesel Engine (Installed 2018)

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
None				

15. 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)
None				

16. RECORDKEEPING REQUIREMENTS:

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

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
01, 02	Fuel Oil Usage	869,760 gallons per 12 months	Monthly	N
01, 02	Fuel Oil Sulfur Content	0.5 % sulfur	Each Shipment	N
08	VOC Usage	24 tpy	Monthly	N
08	Toluene Usage	8.5 tpy	Monthly	N
09	Rubber Processed	29,000 lb/hr	Monthly	N
11	Rubber Processed	30,000 lb/hr	Monthly	N
Facility	Rubber Throughput	10,000,000 lb/yr	Monthly	N

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01, 02, 15, 18, 19 (Natural Gas)	5%	§18.501	Fuel used
01, 02 (#2 Fuel Oil)	20%	§19.503	Inspector Observation
11	10%	§18.501	Inspector Observation
16, 17	20%	§19.503	Inspector Observation

18. DELETED CONDITIONS:

Former SC	Justification for removal
	None

19. GROUP A INSIGNIFICANT ACTIVITIES:

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

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Oil Demister	A-5			<0.1				
Grinding Wheel Cleaning	A-13			<0.1				
Cooling Towers	A-13			<0.1				
Misc. Solvent Usage (Mobile Printers)	A-13			4.5			Acetone= 4.5	
Dust Collectors Venting Indoors	A-13	<0.01						
Milling, Extruding, and Calendering	A-13			<0.1				
TOTAL	A-13	<0.01		<4.6			Acetone= 4.5	

Permit #: 0378-AR-17

AFIN: 04-00111

Page 8 of 8

20. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
0378-AR-16

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Minor Source

Revised 03-11-16

Facility Name:
 Gates Corporation - Siloam Springs
 Permit Number: 0378-AR-17
 AFIN: 04-00111

		Old Permit	New Permit
\$/ton factor	23.93	58.2	69.8
Minimum Fee \$	400	11.6	
Minimum Initial Fee \$	500		
		400	
Check if Administrative Amendment	<input type="checkbox"/>	69.8	
		Permit Predominant Air Contaminant	
		Net Predominant Air Contaminant Increase	
		Permit Fee \$	
		Annual Chargeable Emissions (tpy)	

Pollutant (tpy)	Old Permit	New Permit	Change
PM	9.3	11.7	2.4
PM ₁₀	9.3	11.7	2.4
PM _{2.5}	0	0	0
SO ₂	31.5	31.7	0.2
VOC	41.5	42.7	1.2
CO	43.3	45.9	2.6
NO _x	58.2	69.8	11.6
Single HAP	8.62	9.22	0.6
Total HAPs	21.36	21.98	0.62
Acetone	4.5	4.5	0