

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0378-AOP-R5

AFIN: 04-00111

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Gates Corporation
1801 North Lincoln
Siloam Springs, Arkansas 72761

3. PERMIT WRITER:

Paul Osmon

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Rubber Belt Manufacturing
NAICS Code: 326220

5. SUBMITTALS:

February 7, 2005

6. REVIEWER'S NOTES:

All emission limits for the facility have been recalculated based on the latest emission factors from AP-42. Gates has decided to retire the Cord Treating Operations (SN-06) prior to May 29, 2006. The related sources [Pre-Dip Mix Area (SN-03), Cement House (SN-04), Latex Mix Area (SN-07), and Toluene Storage Tank (SN-07)] will also be retired at the same time. They have requested permission to retain this equipment on cold standby from the time of the issuance of this permit until compliance with 40 CFR Part 63, Subpart OOOO is required. The boilers at the facility are not subject to 40 CFR 60, Subpart Dc-*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* because the boilers were constructed prior to the applicability date and have not been modified or reconstructed since that date.

The boilers are subject to 40 CFR 63, Subpart DDDD with an initial compliance date of September 13, 2007. The initial notification report has been received from the facility.

7. COMPLIANCE STATUS:

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

There are no known active/pending enforcement actions related to this facility.

8. APPLICABLE REGULATIONS:

PSD Applicability

Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
 Has the facility undergone PSD review in the past? N
 Is the facility categorized as a major source for PSD? N
 ≥ 100 tpy and on the list of 28? N
 ≥ 250 tpy all other? N

PSD Netting

Was netting performed to avoid PSD review in this permit? N

Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
-	None	NA

9. EMISSION CHANGES:

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

Plantwide Permitted Emissions (tpy)			
Pollutant	Permit # 0378-AOP-R4	Permit # 0378-AOP-R5	Change
PM	50.7	66.8	16.1
PM ₁₀	50.7	66.8	16.1
SO ₂	43.1	31.2	-11.9
VOC	227.1	275.7*	48.6*
CO	14.4	31.2	16.8
NO _x	56.4	41.4	-15.0

* - no change in the processes at the facility – change is due to calculation changes. The 275.7 tpy VOC emission limit is really a pseudo limit since 180 tpy of the VOC emission limit is for cold standby equipment.

10. MODELING:

Criteria Pollutants

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.

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 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	5.39	0.347	Y
Acrolein	0.23	0.0253	0.096	N
Aniline	7.6	0.836	0.1168	Y
Benzene	1.6	0.176	0.332	N
1,3-Butadiene	4.4	0.484	0.179	Y
Carbon Disulfide	31	3.41	10.453	N
Cadmium	0.01	0.0011	0.0010	Y
Bis(2-ethylhexyl)phthalate	5	0.55	0.421	Y
Hexane	176	19.36	2.846	Y
Lead	0.05	0.0055	0.0114	N
Methylene Chloride	174	19.14	0.725	Y
Methyl Isobutyl Ketone	205	22.55	0.363	Y
Nickel	1	0.11	0.065	Y

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Phenol	19	2.09	0.076	Y
Propylene Oxide	48	5.28	0.220	Y
Quinoline	0.44	0.0484	0.661	N
Styrene	85	9.35	0.0264	Y
Tetra Chloroethene	170	18.7	0.999	Y
Toluene	188	20.68	178.58	N
Xylene	434	47.74	0.477	Y
Methanol	262	28.82	4.28	Y
MDI	0.01	0.0011	8.57	N
Chloroprene	36	3.96	0.39	Y
Formaldehyde	15	1.65	8.9	N

2nd Tier Screening (PAIL)

ISCST3 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?
Acrolein	2.3	0.37	Y
Benzene	16	1.27	Y
Carbon Disulfide	310	39.9	Y
Lead	0.5	0.04	Y
Quinoline	4.4	2.53	Y
Toluene	1880	1788.9	Y
MDI	0.51	---	*Y
Formaldehyde	15	9.59	Y

Other Modeling:

Odor:

Odor modeling for sources emitting styrene.

Pollutant	Threshold value 1-hour average	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
Styrene	1361 $\mu\text{g}/\text{m}^3$	Less than 1 $\mu\text{g}/\text{m}^3$	Y

H₂S Modeling:

No hydrogen sulfide emissions from this facility.

11. 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	NO _x – 100 CO – 84 PM ₁₀ – 7.6 SO ₂ – 0.6 VOC – 5.5	None	NA	Natural gas fuel – units are lbs/MMscf
01 02	AP-42	NO _x – 20 CO – 5 PM ₁₀ – 3.3 SO ₂ – 71 VOC – 0.252	None	NA	#2 Fuel Oil – units are lbs/Mgal
08	Material balance	-	-	-	-
09	AP-42 Table 4.12-9	VOC – 8.68E-05 HAPS – see application	None	NA	Units are lbs/lb rubber processed
10	AP-42 Table 4.12-10	VOC – 2.94E-03 HAPS – see application	None	NA	Units are lbs/lb rubber processed
11 12 13	AP-42 Table 4.12-12	VOC – 1.78E-03 PM ₁₀ – 1 HAPS – see application	Cyclones + ESP	99%	Units are lbs/lb rubber processed

12. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
No testing requirements in this permit if incinerator operated less than 60 days from issuance of the permit until 5/29/2006 and it is not anticipated to operate.				

13. 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)
No monitoring or CEMS in this permit				

14. RECORD KEEPING 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	Y
01, 02	Fuel Oil sulfur content	0.5 % sulfur	Each Shipment	Y
08	VOC Usage	25.3 tons per 12 months	Monthly	Y
08	HAPS usage	Toluene – 14.33 tons per 12 months Hexane – 14.33 tons per 12 months	Monthly	Y
Facility	Rubber Throughput	37,300,000 tons per 12 months	Monthly	Y

15. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01, 02 (natural gas)	5%	Department Standard	Fuel used
01, 02 (fuel oil)	20%	Department Standard	Weekly observation (when fuel oil is used)

SN	Opacity	Justification for limit	Compliance Mechanism
11, 12, 13	10%	Department Standard	Weekly observation

16. DELETED CONDITIONS:

Former SC	Justification for removal
S.C. 8 through S.C. 31*	Sources SN-03, SN-04, SN-05, SN-06 & SN-07 have been removed from service. They may be reactivated if need prior to May 29, 2006. These Specific Conditions are not needed after that date.

* - These Specific Conditions are moved to the back of the permit. They will not be used after 5/29/06 unless the permit is modified.

17. VOIDED, SUPERCEDED, OR SUBSUMED PERMITS:

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

Permit #
0378-AOP-R4

18. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.

Thomas Rheume, P.E.