

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0544-AR-11 AFIN: 03-00002

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Baxter Healthcare Corporation
1900 Highway, 201 North
Mountain Home, Arkansas 72653

3. PERMIT WRITER:

Ambrosia Brown

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Unlaminated Plastics Film and Sheet (except Packaging)
Manufacturing
NAICS Code: 326113

5. SUBMITTALS:

11/5/2012, 11/21/2012, 11/28/2012

6. REVIEWER'S NOTES:

Baxter Healthcare Corporation (Baxter), previously known as Travenol Laboratories, Inc., operates a facility in Mountain Home, AR, which manufactures items used in the healthcare field. This permitting action is necessary to:

- The removal of the emergency generator currently listed as an insignificant activity
- The addition of a Diesel Emergency Generator as Source #112
- The addition of a Diesel Sub-base Storage tank as Source #113
- The addition of a transfer tank as an insignificant activity

Permitted annual emissions from this modification increase by 0.1 tpy PM/ PM₁₀, 0.2 tpy SO₂, 0.2 tpy CO, and 0.4 tpy NO_x.

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 compliance issues or pending CAO's for this facility.

8. PSD APPLICABILITY:

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

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, or*
- *CO_{2e} potential to emit $\geq 100,000$ tpy and ≥ 100 tpy/ ≥ 250 tpy of combined GHGs?*

If yes, explain why this permit modification is not PSD.

9. GHG MAJOR SOURCE (TITLE V):

Indicate one:

- Facility is classified as a major source for GHG and the permit includes this designation
- Facility does not have the physical potential to be a major GHG source
- Facility has restrictions on GHG or throughput rates that limit facility to a minor GHG source. Describe these restrictions: _____

10. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
11-15, 57, 76-83, 88, 94, 101,	Ethylene Oxide	40 CFR Part 63, Subpart A and Subpart O
18	N/A	40 CFR Part 60 Subpart Dc
112	N/A	40 CFR Part 63 Subpart ZZZZ
112	HC, NO _x , CO & PM	40 CFR Part 60 Subpart IIII

11. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

12. 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:

This permit contains a TLV table for non-criteria pollutants. Previous modeling was used to determine the permitted emission rates for ranges of non-criteria pollutants (grouped by TLV) that pass the PAER or PAIL. The TLV table does not include Ethylene Oxide. There were no changes to permitted HAP emissions during this modification. The following modeling was performed during the previous modification.

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?
Ethylene Oxide	1.8	0.198	0.91	Fail

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 ($\mu\text{g}/\text{m}^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
Ethylene Oxide	18	1.71*	Pass

*2nd high 24 hr for 2005-2009

Other Modeling: N/A

13. CALCULATIONS:

SN	Emission Factor Source	Emission Factor and units	Control Equipment Type	Control Equipment Efficiency	Comments
09	Testing & Records	60% IPA density 6.63 lb/gal 99% waste	N/A	N/A	usage - waste = total emissions
17, 18	AP-42	Per 1000gal #2: SO ₂ : 142 lb NO _x : 20 lb CO: 5 lb PM: 2 lb PM ₁₀ : 2 lb TOC: 0.252 lb Per 10 ⁶ ft ³ NG: SO ₂ : 0.6 lb NO _x : 140 lb CO: 35 lb PM: 13.7 lb PM ₁₀ : 13.7 lb TOC: 5.8 lb	N/A	N/A	
41	Records	2% of Grinder Feed goes to B.H. Max Feed 8000tpy	Baghouse	99%	Max equipment capacity
72	Testing	Area = 0.05 ft ² Velocity = 250 fpm	N/A	N/A	
78-83, & 101	Testing & Records	Potential: 2% Chamber Exhaust	Scrubber	99.8%	Max sent to scrubber = 421 lb/hr EtO
76, 77, & 94	Testing & Records	Potential: 15% Aeration Room	Catalytic Oxidizer	99%	
88	TANKS	2 tank turnovers /month 24 t.t./yr 8,000 gal tank	N/A	N/A	Assumed 100% ethylene glycol
89&90	TANKS	Tank ht = 24 ft Tank D= 11.7ft 19304 gal 247 t.t./yr	N/A	N/A	
95	TANKS	Tank ht = 5 ft Tank D= 5ft 734 gal 1280 t.t./yr	N/A	N/A	

SN	Emission Factor Source	Emission Factor and units	Control Equipment Type	Control Equipment Efficiency	Comments
95	Mass Balance	Tubing/pelletizing: 11 tubing lines 2 pelletizers 1" D max 7" max distance Film Lines: 42" cool film 64" wide 11 lines	Hood	T/P: 80% Film: 98%	
97	Mass Balance	Max Usage: 100 lb/hr VOC	N/A	N/A	
100	TANKS	15 t.t./yr tank D = 10'6" tank ht. = 39'	N/A	N/A	
108	Mass Balance	15 gal/yr Ink density = 9 lb/gal 2% Dibutyl phthalate 200 lb/yr MeCl	N/A	N/A	
112	Kohler Power Systems Emission Data Sheet & AP 42	0.1290 g/kWh PM 0.0022 lb/hp-hr PM ₁₀ 0.0021 lb/hp-hr SO _x 0.1400 g/kWh VOC 2.9500 g/kWh NO _x 0.1100 g/kWh CO	N/A	N/A	237 HP 177 kW
113	Tanks 4.0.9d	N/A	N/A	N/A	583 gallon tank Diesel Fuel

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
17, 18(while burning No. 2 fuel oil)	CO NO _x SO ₂	10 10 7E	Annual*	Carry over from previous permit
41	PM/PM ₁₀	1-5	Initial Test Only	Carry over from previous permit
112	NTE standards	40 CFR part 1039, subpart F	If Required: See SC #70 - #71	40 CFR Part 63, Subpart ZZZZ

*Only required to test in years when burning No. 2 Fuel Oil.

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)
94	Oxidation Temperature	Temperature monitor	continuously	N

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)
11-15, 57	Ethylene Oxide usage	400,000 lb/yr	monthly	N
94	oxidation temperature	minimum of 10°F below baseline temperature	hourly avg. & 3-hr avg.	N
	actions taken during start-up, shut-down, or mal-function	as necessary	as necessary & semiannual	Y
17, 18	sulfur content of No. 2 fuel oil	Maximum = 0.5% sulfur (by weight)	with each shipment	N
	natural gas usage	300 MM ft ³ /rolling twelve-month period	monthly	N
	No.2 fuel oil usage	725,000 gal/rolling twelve-month period	monthly	N
41	amount of waste plastic ground	8,000 tons/yr	monthly	N
	Preventive maintenance	N/A	every 3 months	N

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
97	VOC usage Updated list of sources Updated plot plan Raw materials used Updated MSDSs	100 lb/hr, 95 tpy	Monthly As needed As needed As needed	N
101	Liquid level in scrubber liquor tank	18 feet, maximum	weekly	N
109	Single HAP usage Combined HAP Updated list of sources Updated plot plan Raw materials used Updated MSDSs	9.5tpy 23.75 tpy	Monthly Monthly As needed As needed As needed	N
112	Hours & Reason for Operation	Total: 500 hr/yr Maintenance Checks and testing: 100 hr/yr Non-emergency situations: 50 hr/yr (included in 100 hr/yr limit) Peak shaving/income generation not allowed	As operated	N
112	Purchased fuel specifications	requirements of 40 CFR 80.510 for nonroad diesel fuel	As Purchased	N

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SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
112	Manufacturer's emission-related specifications and engine certification	N/A	N/A	N
112	Maintenance and Repair	As per manufacturer instructions	N/A	N
112	Maintenance Plan & Testing Results	N/A	If Required: See SC #70-#71	Y

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
17, 18	5% (Natural Gas)	[Regulation No. 18 §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]	Opacity reading
17, 18	20% (No. 2 Fuel Oil)	[Regulation No. 19 §19.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]	Opacity reading
41	5%	[Regulation No. 18 §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]	Preventative maintenance
112	20%	[Regulation No. 19 §19.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]	Daily Observations when Operating

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18. DELETED CONDITIONS:

Former SC	Justification for removal
48	Included in SC #3

19. GROUP A INSIGNIFICANT ACTIVITIES

Source Name	Group A Category	Emissions (tpy)							
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs		
							Single	Total	
Chiller #1-3(former SN-67) #1 replaced in 2008 (no emissions)	A-1			0.008					
Chiller #5 (former SN-68)	A-1			0.003					
Chiller #4	A-1			None					
Chiller Plant #3 (installed 2007)	A-1			None					
Portable Transfer Tank of Emergency Generator	A-2			0.00001					
Resin Storage Silo 3A (former SN-59)	A-13	.0023							
Resin Storage Silo 4A (former SN-60)	A-13	.0023							
Resin Storage Silo 4B (former SN-61)	A-13	.0023							
Resin Storage Silo 5 (former SN-62)	A-13	.0023							
Resin Storage Silo 3B (former SN-63)	A-13	.0023							
Resin Storage Silo 3C (former SN-64)	A-13	.0023							

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Resin Storage Silo (former SN-65)	A-13	.0023						
Resin Storage Silo (former SN-66)	A-13	.0023						
Needles Silicone	A-13			2.18				
Needles Cleaning/ Electropolishing	A-13			0.19				
Vacuum Pumps Plastics (99.9% eff)	A-13	<.01						
Dust Collector Home Choice	A-13	<.01						
Molding Process (SN-96)	A-13						<.1	<.1
Coextruded Non-PVC Plastics (SN-107)	A-13			<0.1				
PM Removal Vacuum Systems	A-13	<0.1						
Thermoformer regrind convey air	A-13	<0.1						
Core Extrusion convey air	A-13	<0.1						
Non-146-2 Grinder (filter air and exhaust back into warehouse – no exhaust to atmosphere)	A-13	<0.1						
PVC Blend (4 inside tanks– fugitive)	A-13	<0.1						
1847 Blend (1 inside tank- fugitive)	A-13	<0.1						
146-2 Pellets(2 inside tanks- fugitive)	A-13	<0.1						

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Print Shop (SN-85)	A-13						0.001	0.001
Pump Housing (Sets) (SN-108)	A-13						0.5	0.5
Label Printing Inks	A-13						0.3	0.33
Home Hemo Dialysis Assembly Bicarbonate Tubing Set	A-13	0.17						
570 gal Diesel Fuel tank (Mfg. After July 1, 2008) (New Area Source MACT does not apply)	A-3			0.0001				
300 gal Diesel Fuel tank (Mfg. After July 1, 2008) (New Area Source MACT does not apply)	A-3			<0.0001				
500 & 300 gal Propane tanks	A-3			<0.0001				
Distilled Water Tank	A-3			NA			NA	NA
De-aeration tank	A-3			NA			NA	NA
5,500 gal Out of Service Tank	A-3			NA			NA	NA
Water	A-3			NA			NA	NA
Air Receiver Tank	A-3			NA			NA	NA

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20. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
0544-AR-10

21. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.

Paula Parker, P.E.

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Minor Source

Revised 08-20-12

Facility Name: Baxter Healthcare Corporation
 Permit Number: 0544-AR-11
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			Old Permit	New Permit
\$/ton factor	22.97	Permit Predominant Air Contaminant	97	95
Minimum Fee \$	400	Net Predominant Air Contaminant Increase	-2	
Minimum Initial Fee \$	500			
		Permit Fee \$	400	
Check if Administrative Amendment <input type="checkbox"/>		Annual Chargeable Emissions (tpy)	95	

Pollutant (tpy)	Old Permit	New Permit	Change
PM	3	3.1	0.1
PM ₁₀	3	3.1	0.1
SO ₂	30.5	30.7	0.2
VOC	97	95	-2
CO	13.1	13.3	0.2
NO _x	16.1	16.5	0.4
Ethylene Oxide (EtO)*	0.7	0.7	0
Ethylene Glycol*	0.05	0.05	0
Total HAPs	23.75	23.75	0