

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0544-AR-13 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 North Highway 201
Mountain Home, Arkansas 72653

3. PERMIT WRITER:

Jesse Smith

4. NAICS DESCRIPTION AND CODE:

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

5. ALL SUBMITTALS:

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
9/6/2016	Administrative Amendment	Removal of SN-76, SN-77, and SN-94

6. REVIEWER'S NOTES:

Baxter Healthcare Corporation (Baxter) owns and operates a manufacturing facility located in Mountain Home, Arkansas. The facility manufactures peritoneal dialysis disposables, blood cell separation disposables, patient connectors, and produces plastics for the disposables manufacturing. This permitting action is necessary to remove SN-76, SN-77, and SN-94. Permitted annual emission changes from this administrative amendment are as follows: decrease of 0.1 tpy of PM/PM₁₀, decrease of 0.1 tpy SO₂, decrease of 0.4 tpy VOC, decrease of 0.5 tpy CO, decrease of 1.1 tpy NO_x, and decrease of 0.3 tpy Ethylene Oxide.

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 December 3, 2015. There were no areas of concern noted at the time.

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*

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

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
11-15, 57, 76-83, 88, 94, 101, 116-119	Ethylene Oxide	40 CFR Part 63, Subpart A and Subpart O
18	N/A	40 CFR Part 60 Subpart Dc
112 & 115	HAPs	40 CFR Part 63 Subpart ZZZZ
112	HC, NO _x , CO & PM	40 CFR Part 60 Subpart IIII

10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

11. AMBIENT AIR EVALUATIONS:

a) Reserved.

b) Non-Criteria Pollutants:

Based on Department procedures for review of non-criteria pollutants, emissions of non-criteria pollutants are below thresholds of concern.

c) H₂S 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 H₂S Standards Y

If exempt, explain: No H₂S emissions

Pollutant	Threshold value	Modeled Concentration (ppb)	Pass?
H ₂ S	20 parts per million (5-minute average*)		
	80 parts per billion (8-hour average) residential area		
	100 parts per billion (8-hour average) nonresidential area		

*To determine the 5-minute average use the following equation

$$C_p = C_m (t_m/t_p)^{0.2} \text{ where}$$

C_p = 5-minute average concentration

C_m = 1-hour average concentration

t_m = 60 minutes

t_p = 5 minutes

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	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 Table 1.4-1,2,3	<u>lb/MMscf</u> PM = 5.7 PM ₁₀ = 1.9 NO _x = 100 CO = 84 VOC = 5.5	N/A	N/A	

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		SO ₂ = 0.6			
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	
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	

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
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
115	AP-42 Table 3.2-1	<u>lb/MMBtu</u> PM = 9.91E-03 PM10 = 3.84E-02 NO _x = 3.17 CO = 3.86E-01 VOC = 1.20E-01 SO ₂ = 5.88E-04	N/A	N/A	1528 HP 46.94 HP
116 117	AP-42 Table 1.4-1,-2	<u>lb/MMscf</u> PM = 5.7 PM10 = 1.9 NO _x = 100 CO = 84 VOC = 5.5 SO ₂ = 0.6	Catalytic Oxidizer	Controlled to 1 ppm	
118	Subpart O	<u>Volumetric Flow</u> 29,217 acfm	Catalytic Oxidizer	99%	
119	Subpart O	<u>200,000 lb/yr</u>	Acid-Water Scrubber	99%	

13. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
N/A				

14. 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

15. 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	600,000 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	natural gas usage	570 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	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	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

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	N/A	Y
115	Maintenance Plan & Testing Results	N/A	N/A	N
115	Hours & Reason for Operation	500 hr/yr	As operated	N

16. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
17, 18	5% (Natural Gas)	§18.501	Opacity Reading
17, 18	20% (No. 2 Fuel Oil)	§18.501	Opacity Reading
41	5%	§18.501	Preventative maintenance
94	20%	§19.503	Daily Observations
112, 115	20%	§19.503	Daily Observations when Operating
118, 119	20%	§19.503	Daily Observations

17. DELETED CONDITIONS:

Former SC	Justification for removal
	N/A

18. 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	0.0023						
Resin Storage Silo 4A (former SN-60)	A-13	0.0023						
Resin Storage Silo 4B (former SN-61)	A-13	0.0023						
Resin Storage Silo 5 (former SN-62)	A-13	0.0023						
Resin Storage Silo 3B (former SN-63)	A-13	0.0023						
Resin Storage Silo 3C (former SN-64)	A-13	0.0023						
Resin Storage Silo (former SN-65)	A-13	0.0023						
Resin Storage Silo (former SN-66)	A-13	0.0023						
Needles	A-13			2.18				

Silicone								
Needles Cleaning/ Electropolishing	A-13			0.19				
Vacuum Pumps Plastics (2) (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						
Print Shop (SN- 85)	A-13						0.001	0.001
Pump Housing (Sets) (SN-108)	A-13						0.5	0.5
Label Printing	A-13						0.3	0.33

Inks								
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

19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
0544-AR-12

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Minor Source

Revised 03-11-16

Baxter Healthcare Corporation

Permit #: 0544-AR-13

AFIN: 03-00002

			Old Permit	New Permit
\$/ton factor	23.93	Permit Predominant Air Contaminant	95	94.6
Minimum Fee \$	400	Net Predominant Air Contaminant Increase	-0.4	
Minimum Initial Fee \$	500			
Check if Administrative Amendment	<input type="checkbox"/>	Permit Fee \$	400	
		Annual Chargeable Emissions (tpy)	94.6	

Pollutant (tpy)	Old Permit	New Permit	Change
PM	3.9	3.8	-0.1
PM ₁₀	2.8	2.7	-0.1
PM _{2.5}	0	0	0
SO ₂	0.9	0.8	-0.1
VOC	95	94.6	-0.4
CO	26.9	26.4	-0.5
NO _x	32.7	31.6	-1.1
Ethylene Oxide	5.8	5.5	-0.3
Ethylene Glycol	0.05	0.05	0
Single HAP	9.5	9.5	0
Total HAP	23.75	23.75	0