STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0544-AR-14 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:

Andrea Sandage

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
3/6/2017	Administrative Amendment	Removal of SN-115, addition of IA.

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 administrative amendment is necessary to remove SN-115 and the associated subpart ZZZZ conditions. Also included is the addition of a natural gas hot water heater and third tubing line with a vacuum pump (along with a filtration unit) and chiller as insignificant activities. Permitted annual emission rate decreases are as follows: 0.1 tpy PM/PM_{10}, 0.1 tpy SO_2, 0.1 tpy VOC, 0.1 tpy CO and 0.1 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.

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	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) H_2S 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 H_2S Standards Y
If exempt, explain: No H_2S emissions

Pollutant	Threshold value	Modeled Concentration (ppb)	Pass?
H_2S	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

$Cp = Cm\ (t_m/t_p)^{0.2}$ where

Cp = 5-minute average concentration
Cm = 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 Table1.4-1,2,3	lb/MMscf PM = 5.7 PM_{10} = 1.9 NOx = 100 CO = 84	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
		VOC = 5.5 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
116 117	AP-42 Table 1.4-1,-2	lb/MMscf PM = 5.7 PM10 = 1.9 NOx = 100 CO = 84 VOC = 5.5 SO2 = 0.6	Catalytic Oxidizer	Controlled to 1 ppm	
118	Subpart O	Volumetric Flow 29,217 acfm	Catalytic Oxidizer	99%	
119	Subpart O	200,000 lb/yr	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^{o}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
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	9.5tpy 23.75 tpy	Monthly	N

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
	Combined HAP Updated list of sources Updated plot plan Raw materials used Updated MSDSs			
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
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

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	20%	§19.503	Daily Observations when Operating
118, 119	20%	§19.503	Daily Observations

17. DELETED CONDITIONS:

Former SC	Justification for removal
57-71	Removed SN-115 and ZZZZ conditions

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				
Chiller Plant	A-1			None				
NG Hot Water Heater	A-1	0.01	5.13E-04	4.7E-02	0.07	0.09	4.27E-07	4.27E-07
Portable Transfer Tank of Emergency Generator	A-2			0.00001				

Source Name	Group A Category	Emissions (tpy)						
		PM/PM_{10}	SO_2	VOC	CO	NO_x	HAPs	
							Single	Total
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 Silicone	A-13			2.18				
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	A-13	<0.1						

Source Name	Group A Category	Emissions (tpy)						
		PM/PM_{10}	SO_2	VOC	CO	NO_x	HAPs	
							Single	Total
atmosphere)								
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 Inks	A-13						0.3	0.33
Home Hemo Dialysis Assembly Bicarbonate Tubing Set	A-13	0.17						
Tubing Vacuum Pump	A-13	1.99E-04						
Tubing Line	A-13	0.31						
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

Source Name	Group A Category	Emissions (tpy)						
		PM/PM_{10}	SO_2	VOC	CO	NO_x	HAPs	
							Single	Total
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

Note: Not all IA that are included in the permit from previous revisions are included in this table. These sources were not updated by this revision.

19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
0544-AR-13

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Minor Source

Revised 03-11-16

Baxter Healthcare Corporation
Permit #: 0544-AR-14
AFIN: 03-00002

			Old Permit	New Permit
$/ton factor	23.93	Permit Predominant Air Contaminant	94.6	94.5
Minimum Fee $	400	Net Predominant Air Contaminant Increase	-0.1	
Minimum Initial Fee $	500			
		Permit Fee $	0	
Check if Administrative Amendment	☑	Annual Chargeable Emissions (tpy)	94.5	

Pollutant (tpy)	Old Permit	New Permit	Change
PM	3.8	3.7	-0.1
PM_{10}	2.7	2.6	-0.1
$PM_{2.5}$	0	0	0
SO_2	0.8	0.7	-0.1
VOC	94.6	94.5	-0.1
CO	26.4	26.3	-0.1
NO_X	31.6	31.5	-0.1
Ethylene Oxide	5.5	5.5	0
Ethylene Glycol	0.05	0.05	0
Single HAP	9.5	9.5	0
Total HAP	23.75	23.75	0