

STATEMENT OF BASIS

For the issuance of Air Permit # 0544-AR-10 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:

Travis Porter

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Pharmaceutical Preparation Manufacturing
NAICS Code: 325412

5. SUBMITTALS:

6/17/2010

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. The facility, currently permitted under Title V, no longer meets the criteria, and a Title V permit is not required. This permitting action is necessary to:

- Issue a Minor Source Permit.
- Remove the following sources from the permit:
 - The Needles Grinding Operation (SN-21 through SN-28, SN-45, and SN-98) because the equipment has been removed.
 - Methylene Chloride Etching (SN-102) and E-Beam ionizing Radiation (SN-103) because the equipment is no longer in service.
 - The Lasker Boiler (SN-16) because it has been replaced with a new boiler
 - Plastics Grinder #2 (SN-73) because it was not installed.
 - Sterilization Chambers 110 and 111 because they were not installed.

- Install a new Cleaver Brooks Boiler (SN-18) per the terms of 0544-AOP-R5 as a replacement for SN-16.
- Remove as Source Numbers, the following Insignificant Activities:
 - Resin Storage Silos (former SN-59 through SN-66)
 - Water Chillers (former SN-67 through SN-69)
 - Print Shop (former SN-85)
 - Molding Process (former SN-96)
 - Coextruded Non-PVC Plastics (former SN-107)
 - Pump Housing and Sets Assembly (former SN-108)
- Remove the following insignificant activities: (1) nitric acid tanks; (2) citric acid tanks; (3) sodium hydroxide tanks; (4) needles silicone; (5) needles cleaning/electroplating; (6) needles neutralization tank; (7) Isolex 300 Sets.

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues. The last inspection, April 6, 2010, revealed no compliance issues.

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 not PSD?

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

| Source | Pollutant | Regulation (NSPS, NESHAP or PSD) |
|--------------------------------|----------------|---|
| 11-15, 57, 76-83, 88, 94, 101, | Ethylene Oxide | NESHAP 40 CFR Part 63, Subpart A and Subpart O |

10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

11. MODELING:

Criteria Pollutants

AERMOD air dispersion modeling was performed on the estimated hourly emissions for the pollutants below.

| Pollutant | Emission Rate (lb/hr) | NAAQS Standard ($\mu\text{g}/\text{m}^3$) | Averaging Time | Highest Concentration ($\mu\text{g}/\text{m}^3$) | % of NAAQS |
|------------------|-----------------------|---|--|--|------------|
| PM ₁₀ | 1.7 | 50 | Annual | 3.76 | 7.5 |
| | | 150 | 24-Hour | 30.12 | 20.0 |
| SO ₂ | | 80 | Annual | NA | |
| | | 1300 | 3-Hour | NA | |
| | | 365 | 24-Hour | NA | |
| VOC | | 0.12 | 1-Hour (ppm) | NA | |
| CO | | 10,000 | 8-Hour | NA | |
| | | 40,000 | 1-Hour | NA | |
| NO _x | | 100 | Annual | NA | |
| Pb | | 0.15 | Rolling 3-month Period over 3 years (not to be exceeded in any 3 month period) | NA | |

*PM₁₀ modeling performed for 2005-2009. 6th high for 24 hr averaging; 1st high for annual.

Non-Criteria Pollutants:

This permit contains a TLV table for certain non-criteria pollutants. Modeling was used to determine the permitted emission rates for ranges of non-criteria pollutants (grouped by TLV) that pass the PAER or PAIL. AERMOD modeling was performed on Ethylene Oxide.

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 × TLV | Proposed lb/hr | Pass? |
|-----------------|--------------------------|---------------------------|----------------|-------|
| Ethylene Oxide | 1.8 | 0.198 | 0.91 | Fail |
| Ethylene Glycol | 100 | 11 | 1 | Pass |

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? |
|----------------|--|--|-------|
| Ethylene Oxide | 18 | 1.71* | Pass |

*2nd high 24 hr for 2005-2009

Other Modeling: N/A

H₂S Modeling: N/A

12. 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 | |

| SN | Emission Factor Source | Emission Factor and units | Control Equipment Type | Control Equipment Efficiency | Comments |
|------------------------------|------------------------|---|------------------------|------------------------------|--------------------------------------|
| 21—28 Removed from permit | | | | | |
| 41 | Records | 2% of Grinder Feed goes to B.H. Max Feed 8000tpy | Baghouse | 99% | Max equipment capacity |
| 45— Removed from permit | | | | | |
| 72 | Testing | Area = 0.05 ft ² Velocity = 250 fpm | N/A | N/A | |
| 85— Moved to IA | | | | | |
| 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 | |
| 102— Removed from permit | | | | | |
| 108 | Mass Balance | 15 gal/yr Ink density = 9 lb/gal 2% Dibutyl phthalate 200 lb/yr MeCl | N/A | N/A | |

13. 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 | 10 10 | Initial Testing when Fuel Oil consumption threshold met | Carry over from previous permit |
| 41 | PM/PM ₁₀ | 1-5 | Initial Test Only | Carry over from previous permit |

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 |
| 17, 18 | Visible emissions | EPA Reference Method 9 | Weekly | N |
| 41 | Visible emissions | EPA Reference Method 9 | Weekly | 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 | Limit (as established in permit) | 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 | Limit (as established in permit) | 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 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 As needed | N |

16. 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 |

17. DELETED CONDITIONS:

| Former SC | Justification for removal |
|---------------------------|---|
| 29-40 | Equipment not installed |
| 45 | SN-16 removed and replaced with SN-18 |
| 61 | Equipment not installed |
| 58, 59 | Not necessary; requirements covered in General Condition #9 |
| Plantwide Conditions 1-14 | Not required for the Minor Source Permit |
| 68, 75 | Reporting not required |
| General Provisions 1-26 | Replaced with Minor Source General Conditions 1-21 |

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 | | | | |
| 150 HP Emergency Generator—NG fired; 500 hr/yr max | A-1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.6 | | |
| Resin Storage Silo 3A (former SN-59) | A-13 | .0023 | | | | | | |
| Resin Storage Silo 4A (former SN-60) | 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 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 | | | | | | | |
| 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 | A-13 | <0.1 | | | | | | | |

| Source Name | Group A Category | Emissions (tpy) | | | | | | |
|---|------------------|-------------------------|-----------------|---------|----|-----------------|--------|-------|
| | | PM/ PM ₁₀ | SO ₂ | VOC | CO | NO _x | HAPs | |
| | | | | | | | Single | Total |
| convey air | | | | | | | | |
| 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 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 | A-3 | | | <0.0001 | | | | |

| Source Name | Group A Category | Emissions (tpy) | | | | | | |
|-------------------------------|------------------|-------------------------|-----------------|---------|----|-----------------|--------|-------|
| | | PM/ PM ₁₀ | SO ₂ | VOC | CO | NO _x | HAPs | |
| | | | | | | | Single | Total |
| does not apply) | | | | | | | | |
| 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 |

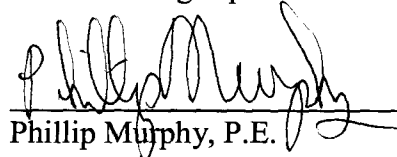
19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

| |
|-------------|
| Permit # |
| 0544-AOP-R5 |

20. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.


 Phillip Murphy, P.E.

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source Changing to Minor Source

Revised 03-01-10

Facility Name: Baxter Healthcare
 Corporation
 Permit Number: 0544-AR-10
 AFIN: 03-00002

| | | | |
|----------------|-------|-----------------------------------|-----|
| \$/ton factor | 22.07 | Annual Chargeable Emissions (tpy) | 97 |
| Minimum Fee \$ | 400 | Permit Fee \$ | 400 |

Title V Permit Chargeable Emissions (tpy) 183.3

HAPs not included in VOC or PM: Chlorine, Hydrazine, HCl, HF, Methyl Chloroform, Methylene Chloride, Phosphine, Tetrachloroethylene, Titanium Tetrachloride

Air Contaminants: All air contaminants are chargeable unless they are included in other totals (e.g., H2SO4 in condensible PM, H2S in TRS, etc.)

| Pollutant (tpy) | Check if Chargeable Emission | Old Permit | New Permit | Change in Emissions | Title V Permit Annual Chargeable Emissions |
|------------------|-------------------------------------|------------|------------|---------------------|--|
| PM | <input checked="" type="checkbox"/> | 7.5 | 3 | -4.5 | 7.5 |
| PM ₁₀ | <input type="checkbox"/> | 7.5 | 3 | -4.5 | |
| SO ₂ | <input checked="" type="checkbox"/> | 43.2 | 30.5 | -12.7 | 43.2 |
| VOC | <input checked="" type="checkbox"/> | 97.6 | 97 | -0.6 | 97.6 |
| CO | <input type="checkbox"/> | 9.5 | 13.1 | 3.6 | |
| NO _x | <input checked="" type="checkbox"/> | 35 | 16.1 | -18.9 | 35 |
| HAPs | <input type="checkbox"/> | 23.75 | 23.75 | 0 | |