

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1085-AOP-R10 AFIN: 32-00036

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

FutureFuel Chemical Company
2800 Gap Road
Batesville, Arkansas 72501

3. PERMIT WRITER:

Shawn Hutchings

4. NAICS DESCRIPTION AND CODE:

NAICS Description: All Other Basic Organic Chemical Manufacturing
NAICS Code: 325199

5. 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
10/7/2014	Modification	None. Added control equipment for odor control. No emission changes no changes in method of operation.

6. REVIEWER'S NOTES:

FutureFuel Chemical Company is located in Batesville, Arkansas, is a supplier of specialty organic chemical intermediates used in the manufacture of color film and photographic paper, paints and coatings, plastics and bottle polymers, medical supplies, prescription medicines, food supplements, household detergents, agricultural products, and biofuel. In this permit modification FutureFuel is adding three odor control scrubbers to reduce odors of trimethylamine and trimethylamine emitted by process equipment and a third scrubber on tank TF-14. Tank TF-14 is a pressurized tank the scrubber is on the pressure relief valve of the tank and is not permitted as a source. The other odor scrubbers are before Thermal Oxidizer SN 5N09-02 and

SN-5N09-01. No increase in permitted emissions is made due to these scrubbers. The emissions for the gasoline tank SN 6N01-03 were updated. Hourly rates were increased. Annual rates are part of the Plantwide limit which did not change. Two insignificant diesel tanks were removed. The permit was updated to incorporate the fact two scrubbers before other control devices were removed. Opacity observation requirements for 5N09-01 and 5N09-02 were updated.

A requirement to submit an application to incorporate the boiler MACT into the permit was added to Plantwide conditions.

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 enforcement issues with the 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? **Y**

- *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. No physical changes to a source or change in method of operation. No physical changes or changes in method of operation at any source.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
5N09-01, OCI-FUG	VHAP	40 CFR Part 63 Subpart GGG - National Emission Standards Pharmaceuticals Production
5N09-01, OCI-FUG	VHAP	40 CFR Part 63 Subpart MMM - National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production
TF-13 (SN-5N03-43) WB-06 (SN-6M-03-08) WB-07 (SN-6M-03-09) WB-08 (SN-6M-03-10) WB-09 (SN-6M-03-11) Tanks under SN-5M04-01	VOC	40 CFR Part 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
Tanks under SN-5M04-02 Tanks under SN-5M04-06 Tanks under SN-5M04-08 Tanks under SN-5M14-06 TFS-60 PT-60 PT-68 PT69A PT69B PB-51 PB-52 PM-50A PM-50B TBA-100 4P94-11 SN-5N03-51 SN-5N03-53 T-280 T-265 T-251 T-220 T-211A T-211B T-241 TF-13 PA-50 T-242 T-243 VC-PT-03 VC-PT-01 VC-PT-02		Construction, Reconstruction, or Modification Commenced after July 23, 1984
Utilities Section (coal processing activities)	PM	40 CFR Part 60 Subpart Y- Standards of Performance for Coal Preparation Plants
Organic Sulfonation DIPB Production (Equipment Leaks)	VOC	40 CFR Part 60 Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry
5M01-02	VOC	40 CFR Part 60 Subpart NNN - Standards of Performance for

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
		Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations
DIPB Production (equipment Leaks, benzene)	Benzene	40 CFR Part 61 Subpart J - National Emission Standards for Equipment Leaks (Fugitive Emission Sources) of Benzene
DIPB Production (equipment leaks, VHAP)	VHAP	40 CFR Part 61 Subpart V - National Emission Standards for Equipment Leaks (Fugitive Emission Sources)
Tank T-210 (benzene vessel)	Benzene	40 CFR Part 61 Subpart Y - National Emission Standards for Benzene Emissions from Benzene Storage Vessels
DIPB Production T9, D9 (benzene waste streams).	Benzene	40 CFR Part 61 Subpart FF - National Emission Standard for Benzene Waste Operations
Facility (waste management/recovery operations).	VHAP	40 CFR Part 63 Subpart DD - National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations
6M03-05 6M01-01	Dioxins Furans Mercury Lead Cadmium Arsenic Beryllium Chromium CO Hydrocarbons HCl Cl ₂ PM	40 CFR Part 63 Subpart EEE (Phase I and II) - National Emission Standard for Hazardous Air Pollutants from Hazardous Waste Combustors
Organic Chemical Intermediates Organic Sulfonation Process Solvent Recovery Isopropyl	VHAP	40 CFR Part 63 Subpart FFFF - National Emission Standard for Hazardous Air Pollutants: Miscellaneous Organic

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
Benzene Production 5N07 Production Facility Aldehyde Processing Facility Storage Tanks and Misc. Sources Anode Production Section		Chemical Manufacturing
6M07-01	NOx	40 CFR Part 60 Subpart Db - Standards of Performance for Industrial-Commercial- Institutional Steam Generating Units
5N01-WA 7M04-HT-G01 7M04-HT-G04 6N02 8M01	VHAP	40 CFR Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

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:

No change in emissions. No evaluation performed.

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
6N01-03	Tanks/AP-42	Varied	None	N/A	

13. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
No testing requirements were changed.				

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)
This permit did not add or modify any monitoring or CEMs.				

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)
This permit required no additional recordkeeping.				

16. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
5N09-01 and 5N09-02	20%	Previous limit. Department Guidance	Weekly Method 22 Method 9 if any visible emissions detected.

17. DELETED CONDITIONS:

Former SC	Justification for removal
SR 5	Flow rate requirement for a scrubber removed from service.
BD 5	Flow rate requirement for a scrubber removed from service.

18. GROUP A INSIGNIFICANT ACTIVITIES:

Source Name		Group A Category	Emissions (tpy)						
			PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
								Single	Total
Vents (Organic Sulfonation Process)	5M11-09	A-13			0			0	0
Unloading Station (Isopropyl Benzene Process)	5N03-46	A-13			0.23			0.23	0.23
Unloading Station (Isopropyl Benzene Process)	5N03-47	A-13			0			0	0
Railcar Loading and Unloading Racks	4Q01-12	A-13			0.0112			0	0
Sawdust pile and handling		A-13	2.0						
5P01-01	Storage Tank (Glycerin)	A-13			0.001				
5P01-02	Storage Tank (Glycerin)	A-13			0.001				
4Q01-12	Storage Tank (Glycerin)	A-13			0.001				
4Q01-13	Storage Tank (Glycerin)	A-13			0.001				
A-13 Totals			2.0		0.25			0.23	0.23
Storage Tank (Organic Sulfonation Process)	5M04-04	A-4							
Storage Tank (Organic Sulfonation Process)	5M04-07	A-4							
Storage Tank (Solvent Recovery Process)	4P94-03	A-4							
Storage Tank (Storage Tank Process)	5N03-39	A-4							

Storage Tank (Storage Tank Process)	5N03-40	A-4							
Storage Tank (Chemical Destruction Process)	6M03-15	A-4							
Caustic Tank (CL-01R)	-	A-4							
Storage Tank (Organic Chemical Intermediate Process)	5N01-63	A-3			0.001			0.001	0.001
Storage Tank (Organic Chemical Intermediate Process)	5N01-64	A-3			0.001			0.001	0.001
Storage Tank (Organic Chemical Intermediate Process)	5N03-63	A-3			0.001			0.001	0.001
Storage Tank (Storage Tank Process)	6N01-01	A-3			0.001				
A-3 Totals					0.004			0.003	0.003

19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
1085-AOP-R9

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 08-25-14

FutureFuel Chemical Company
 Permit #: 1085-AOP-R10
 AFIN: 32-00036

\$/ton factor	23.89	Annual Chargeable Emissions (tpy)	5463.6
Permit Type	Modification	Permit Fee \$	1000

Minor Modification Fee \$	500
Minimum Modification Fee \$	1000
Renewal with Minor Modification \$	500
Check if Facility Holds an Active Minor Source or Minor Source General Permit	<input type="checkbox"/>
If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$	0
Total Permit Fee Chargeable Emissions (tpy)	19.2
Initial Title V Permit Fee Chargeable Emissions (tpy)	

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 condensable PM, H2S in TRS, etc.)

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
PM		177.1	177.1	0		
PM ₁₀		177.1	177.1	0	0	177.1
SO ₂		6,123.40	6123.4	0	0	4000
VOC		446.5	465.7	19.2	19.2	465.7
CO		1,126.00	1126	0		
NO _x		820.8	820.8	0	0	820.8
Inorganics	<input type="checkbox"/>	1087.2	1087.3	0.1		
Organic Pollutants	<input type="checkbox"/>	446.2	465.7	19.5		

