STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1085-AOP-R18 AFIN: 32-00036

1. PERMITTING AUTHORITY:

Division 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:

Elliott Marshall

4. NAICS DESCRIPTION AND CODE:

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

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

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
2/4/2025	Minor Mod	-remove Anode material process -remove SPS-TF-06 from IA list -add 2-EHMA-FUG and increase HAP/VOC at SN: 5N09-01 to account for contribution of new EHMA process

6. REVIEWER'S NOTES:

This application was submitted as a minor modification to Permit No. 1085-AOP-R17 to:

1. Remove the Anode Material Process section (conditions CP2-1 through CP2-8) and associated emissions. This material is no longer being manufactured.
2. Remove tank SPS-TF-06 from the IA list. It is now vented to the RTO SN:5N09-01.

3. Remove tank RA-TF-02 from the Kb list (PW#18). Kb is no longer applicable. This tank does not meet the size requirements and the vapor pressure of it's contents is extremely low.
4. Add the following storage tanks to the A-13 IA list; all tank contents have low vapor pressures and emissions are zero using the EPA Tanks program.
   a. FAA-TF-01 (5M04-13); 2-Ethylhexyl Alcohol
   b. RA-TF-02 (5M04-12); 2-Ethylhexyl Methacrylate (2-EHMA)
   c. EX-TF-01 (5M04-08); 2-EHMA
   d. EX-TF-02 (5M04-06); 2-EHMA
5. Add a new 2-EHMA Production section, including: new source EHMA-FUG emissions (+2.7 tpy VOC/HAP) and specific conditions EHMA 1 through EHMA 4. The addition of the new 2-EHMA production section will result in an additional VOC/HAP emission increase at SN:5N09-01 of 4.4 tpy.

Permitted emission rates are decreasing /increasing by -5.6 tpy PM/PM10, 5.7 tpy VOC, and 5.7 tpy organic HAP pollutants.

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 June 19, 2023. The inspection revealed no areas of concern. There are no active or pending enforcement actions.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
If yes, were GHG emission increases significant? 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 for 8(b), explain why this permit modification is not PSD.
No emission increases above PSD significant emission rates.

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

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
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 Tanks under SN-5M04-02 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	VOC	40 CFR Part 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
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

10. UNCONSTRUCTED SOURCES:

Unconstructed Source	Permit Approval Date	Extension Requested Date	Extension Approval Date	If Greater than 18 Months without Approval, List Reason for Continued Inclusion in Permit
N/A				

11. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? N
(Note - permit shields are not allowed to be added, but existing ones can remain, for minor modification applications or any Rule 18 requirement.)

If yes, are applicable requirements included and specifically identified in the permit? N/A
If not, explain why.

12. COMPLIANCE ASSURANCE MONITORING (CAM) – TITLE V PERMITS ONLY:

List sources potentially subject to CAM because they use a control device to achieve compliance and have pre-control emissions of at least 100 percent of the major source level. List the pollutant of concern and a brief summary of the CAM plan (temperature monitoring, CEMs, opacity monitoring, etc.) and frequency requirements of § 64.

Source	Pollutant Controlled	Cite Exemption or CAM Plan Monitoring and Frequency
5N09-01	VOC	
5N09-02	VOC	MON requirements - Daily
5N09-03	VOC	MON requirements - Daily
6M01-01	PM_{10}	MON requirements - Daily
6M01-01A	PM_{10}	Not Pre-control Major Source
5M01-01	VOC	Not Pre-control Major Source
5M01-02	VOC	Post 1990 Federal Regulation

Source	Pollutant Controlled	Cite Exemption or CAM Plan Monitoring and Frequency
5M01-05	VOC	Not Pre-control Major Source
5M01-06	VOC	Not Pre-control Major Source
5M01-07	VOC	Not Pre-control Major Source
5M01-08	VOC	Not Pre-control Major Source
5M01-09	VOC	Not Pre-control Major Source
5M03-01	VOC	Not Pre-control Major Source
5M03-02	VOC	Not Pre-control Major Source
5M04-01	VOC	Not Pre-control Major Source
5M04-02	VOC	Scrubber flow – daily
5M04-10	SO_2	Not Pre-control Major Source
5M05-01	VOC	Not Pre-control Major Source
5M05-02	PM_{10}	Inherent Process Equipment
5M11-01	VOC	Not Pre-control Major Source
5M11-04	VOC	Not Pre-control Major Source
5M11-05	VOC	Not Pre-control Major Source
5M11-06	VOC	Not Pre-control Major Source
5M11-07	VOC	Not Pre-control Major Source
5M11-15	PM_{10}	Inherent Process Equipment
5M13-01	VOC	Not Pre-control Major Source
5M16-01	PM_{10}	Inherent Process Equipment
5M18-01	PM_{10}	Inherent Process Equipment
5M18-02	PM_{10}	Inherent Process Equipment
5M18-03	PM_{10}	Inherent Process Equipment
6M03-05	PM_{10} VOC CO	Post 1990 Federal Regulation
5N03-54	VOC	MON requirements - Daily

13. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

14. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the DEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

Plantwide Conditions 15 and 16 require Non-Criteria pollutant records and an PAER/PAIL analysis of those emissions. Therefore, modeling of specific non-criteria pollutants was not performed. Hourly emissions of organic pollutants increased by 1.6 lb/hr (2-EHMA). There is no published TLV for 2-EHMA; methyl methacrylate (MMA), a related compound has a TLV of 204.8 mg/m^3. 2-EHMA is larger in molecular weight than MMA and is less volatile when considering vapor pressure (2-EHMA: 0.017 mmHg at 20°C, MMA: 29 mmHg at 20°C. No condition of pollution is expected due to the hourly increase in 2-EHMA.

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

15. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
5N09-02&03	AP-42 Table 1.4-1 Table 1.4-2	VOC: 45cfm 19,391 BTU/lb VOC PM/PM_{10}: 7.6lb/1,000,000scf NO_x: 100lb/1,000,000 scf CO: 84lb/1,000,000 scf SO_2: 0.6 lb/1,000,000 scf	Scrubber	98%	2.5MMBtu/hr NO_x, CO, SO_2: 45 scfm
OCI-FUG	Bagging Study	VOC Pumps/Fans: 0.00417lb/hr/component Valves: 0.000154 lb/hr/component Flanges: 0.000057 lb/hr/component Relief Devices: 0.000168 lb/hr/component Simple Ports: 0.0086 lb/hr/component	-	-	-
5N09-01	AP-42 And material balance	PM/PM_{10} 8.6 lb/hr NO_X 2.7 lb/hr CO 13.0 lb/hr SO_2 6.75 lb/hr VOC 43 lb/hr Inorganic emissions 8.2 lb/hr			All numbers are pre-control
5M18-01	Mass balance	PM/PM_{10} 0.31 lb/100 lbs intake			
5M18-02	Mass balance	PM/PM_{10} 0.3 lbs/100 lbs intake			
5M18-03	AP-42	PM/PM_{10} 10 gr/ft3			600 cfm
5M16-01	AP-42	PM/PM_{10} 1 gr/ft3			1000 cfm

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
5M11-15	AP-42	PM/PM_{10} 2 gr/ft3			1600 cfm
5M01-TSP	Mass balance	PM/PM_{10} 3.1 lb/hr			
5M05-02	Vendor supplied	PM/PM_{10} 0.02 gr/ft3			502 dscfm
5M01-01	Modeling	VOC 0.007 lb/hr			
5M01-02	Modeling	VOC 0.018 lb/hr			
5M01-05	Modeling	VOC trace/0.1 lb/hr			
5M01-06	Modeling	VOC 0.006 lb/hr			
5M01-07	Modeling	VOC trace/0.1 lb/hr			
5M01-08	Modeling	VOC trace/0.1 lb/hr			
5M01-09	Modeling	VOC 0.001 lb/hr			
5M03-01	Modeling	VOC 0.0012 lb/hr			
5M03-02	Modeling	VOC trace/0.2 lb/hr			
5M04-02	Modeling	VOC 0.018 lb/hr			
5M04-10	Modeling	VOC trace/0.1 lb/hr			
5M05-01	Modeling	VOC 0.001 lb/hr			
5M11-01	Modeling	VOC 0.007 lb/hr			
5M11-04	Modeling	VOC trace/0.1 lb/hr			
5M11-05	Modeling	VOC 0.006 lb/hr			
5M11-06	Modeling	Trace/0.1 lb/hr			
5M11-07	Modeling	VOC trace/0.1 lb/hr			
5M13-01	Modeling	VOC 0.0012 lb/hr			
5MNOBS-TNK	Modeling	VOC 0.00082 lb/hr			
NOBS-FUG	Bagging Study	VOC 0.96 lb/hr			
5N03-54	AP-42 and TANKS 4.0	VOC 0.0518 lb/MMBtu Organic emissions 0.0882 lb/MMBtu CO 0.37 lb/MMBtu NO_X and SO_2 0.068 lb/MMBtu PM/PM_{10} 0.013 lb/hr			
DIPB-FUG	Bagging study	VOC 0.2 lb/hr			
5N03-48	Mass balance	Inorganics 0.09 lb/hr			

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
5N03-55	Mass balance	Inorganics 0.009 lb/hr			
5NDIPB-TNK	TANKS	VOC 0.061 lb/hr			
5N07	TANKS and other modeling	VOC 2.67 lb/hr			
4P05-01 4P05-03	TANKS and other modeling	VOC 1.3 lb/hr PM/PM_{10} 0.2 lb/hr NO_X 2.1 lb/hr CO 1.0 lb/hr SO_2 0.8 lb/hr			
4PSR-FUG	Bagging study	VOC 0.57 lb/hr			
4PSR-00	Modeling	VOC 3.85 lb/hr after control			
SR-FUG	Bagging study	VOC 2.14 lb/hr			
5N03TK-01	TANKS 4.0	VOC 8.0 lb/hr			
6N01-02	TANKS 4.0	VOC 2.53 lb/year			
6N01-03	TANKS 4.0	VOC 1248 lb/yr			
6M01-01	AP-42, Monitoring, and testing	VOC 0.05 lb/ton PM/PM_{10} 0.44 lbs/ton NO_X 11 lb/ton CO 2000 ppmv SO_2 76 lb/ton HCl 1.2 lb/ton Inorganics 302.3 lb/hr			Coal burning boilers 24000 dscfm
BLR-FUG	Bagging study	VOC 0.41 lb/hr			
6M01-01A	AP-42	PM/PM_{10} 0.02 gr/scf			880 scfm
6M06-01	AP-42 and BACT	NO_X 13.3 lb/hr CO 84 lb/MMscf PM/PM_{10} 5.7 lb/MMscf SO_2 0.6 lb/MMscf VOC 5.5 lb/MMscf			

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
6M07-01	AP-42 and BACT	NO_X 0.1 lb/MMBtu CO 84 lb/MMscf PM/PM_{10} 5.7 lb/MMscf SO_2 0.6 lb/MMscf VOC 5.5 lb/MMscf			
6M03-05	AP-42 and bagging study	VOC 0.9 lb/hr PM/PM_{10} 0.44 lb/hr NO_X 15.97 lb/hr CO 2.05 lb/hr SO_2 10.19 lb/hr Inorganics 1.4 lb/hr			
DEST-FUG	Bagging study	VOC 0.38 lb/hr			
7K01-01	Toxchem modeling	VOC 28.6 lb/hr			
7M01-02	Toxchem modeling	VOC 0.02 lb/hr			
7M01-03	Toxchem modeling	Inorganics 0.03 lb/hr			
7M01-03-B	Toxchem modeling	Inorganics 0.06 lb/hr			
7M01-04	Toxchem modeling	VOC 0.01 lb/hr			
EHMA-FUG	ASPEN Plus V14 and EPA fugitive emission factors for components in light liquid service	VOC 0.6 lb/hr			

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
5N09-01	SO_2, VOC, CO, and NO_x	6C, 25A, 10, and 7E	61 months	Show compliance with limits.
SN-5N09-02 SN-5N09-03	Halide and VOC destruction	26 or 26A, or 320 and 25	61 months	Continued compliance with MACT destruction efficiencies
6M01-01	NOx	7e	61 months	To show compliance with limits.
Tanks WB-01, WB-02, WB-03, WB-04, WB-05, WB-06, WB-07, WB-08, WB-09, WDT-01, WDT-02, and PT-50	DD testing	40 CFR §63.694	40 CFR §63.694	MACT Reqirement
Coal Handling	Opacity	Method 9	Initial only	NSPS requirement
6M01-01 6M03-05	EEE testing	See permit	61 months	MACT requirements
6M03-05	VOC PM, PM_{10} SO_2	25A 7E, 201 or 201A 6C	61 months	Compliance with limits.

17. 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)
5N09-01 5N09-02 5N09-03	Temperature	Thermocouple	Continuous	Y
5N09-01 5N09-02 5N09-03	GGG Pharmaceutical MACT and MMM	Vary	As specified	Y

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
	Pesticide MACT requirements			
6M01-01	ESP Power Input	Ammeter	Daily	Y
6M01-01A	Pressure Drop	Pressure Gauge	Continuous	Y
6M07-01	NO_2	PEMs	Continuous	Y
6M01-01	PM	CEMS	Continuous	Y
6M01-01	CO or Hydrocarbon	CEMS	Continuous	Y
5M05-02, 5M11-15, 5M16-01, 5M18-01, 5M18-02, and 5M18-03	Pressure Drop	Pressure Gauge	Daily	Y
5M01-01 5M01-02 5M01-05 5M01-06 5M01-07 5M01-08 5M01-09 5M03-01 5M03-02 5M04-01 5M04-02 5M05-01 5M11-01 5M11-04 5M11-05 5M11-06 5M11-07 5M13-01	Scrubbing flow rate	Flow meter	Daily	Y
6M03-05	CO and PM	CEMS	Continuous	Y
5N03-48 5N03-55	Scrubber parameters	Facility Operating Plan	Facility Operating Plan	N
5N03-54	Flare Flame	Flame Detector	Daily	Y
SV-03	Scrubbing flow rate	Flow meter	Daily	Y

18. 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)
4P05-01 4P05-03 6M06-01 6M07-01	Fuel analyses, compliance mechanisms, performance tests	N/A	-	Y
4P05-01 4P05-03	Tune-up	N/A	Initial, 5 years	Y
6M06-01 6M07-01	Tune-up	N/A	Initial, 2 years	Y
6N02-EG 4P-EG-01	Operational hours	100 hours 250 hours	Calendar year	Y
5N09-01 5N09-02 5N09-03	GGG Pharmaceutical MACT	Vary	As specified	Y
6M01-01	ESP Power Input	Ammeter	Daily	Y
6M01-01	Fuels Fed	-	30-Day	Y
OCI Plant	GGG Records]MMM Records	None	As necessary	Y
6M07-01	Db Records	Fuel combusted, daily records	Daily	Y
Tanks WB-01, WB-02, WB-03, WB-04, WB-05, WB-06, WB-07, WB-08, WB-09, WDT-01, WDT-02, and PT-50	DD Records	None	As needed	Y
6M01-01 6M03-05	EEE Records	None	As needed	Y
Organic Sulfonation Process	NNN and VV Records	None	As needed	Y

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
4PSR-00	VOC Solvents	40 million pounds solvent processed	Monthly	Y
4PSR-00	Biodiesel produced	250 million pounds	Monthly	Y
4PSR-00	Emissions from Biodiesel production	Permit limits	Monthly	Y
Wastewater Treatment	Emissions from wastewater	Permit limits	Yearly	Y
Isopropyl Benzene Production	MACT FF, V, J, and Y Records	None	As Needed	Y
Storage Tanks	Emissions	Permits limits	Monthly	Y
5N07	Biodiesel produced	250 million pounds	Monthly	Y
5N07	Emissions from Biodiesel production	Permit limits	Monthly	Y
Aldehyde Processing Section	Vinyl compounds	75.0 million pounds of vinyl compound products per 12 months	Monthly	Y
4P05-01 4P05-03	DDDDD Records	None	As needed	Y
Engines	RICE Records	None	As needed	Y
Plantwide	MON Records	None	As needed	Y
Plantwide	Non Criteria Plantwide Emissions	Permit Limits	Monthly	Y
Plantwide	HAP PAER comparison	None	Monthly	N
Tanks	Kb Records	None	As Needed	N
EHMA-FUG	2-EHMA	19.8 million pounds per rolling 12 months	Monthly	N

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
5N09-01, 5N09-02, and 5N09-03	20%	Previous limit. Department Guidance	Weekly Method 22 Method 9 if any visible emissions detected.
6M01	5%	§18.501	Weekly Method 22 Method 9 if any visible emissions detected.
6M01-01	20%	§19.503	
6M01-01A	5%	§18.501	
6M06-01	5%	§18.501	
6M07-01	20%	NSPS Db	
6M03-05	20%	§19.503	
5N01-WA	20%	§18.501	Method 9
7M04-HT-G01	20%	§18.501	Method 9
7M04-HT-G04	20%	§18.501	Method 9
6N02-EG	20%	§18.501	Method 9
8M01	20%	§18.501	Method 9
4P05-01 4P05-03	5% except during periods of fuel oil usage for 4P05-01, which the permittee is allowed 20%	§18.501	Weekly Method 22 Method 9 if any visible emissions detected.
4P-EG-01	5%	§19.503	Daily Method 9 once operation exceeds 24 consecutive hours

20. DELETED CONDITIONS:

Former SC	Justification for removal
CP2 #1 through CP2 #8	The Anode material process and associated conditions have been removed from the permit.

21. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

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

Source Name	Group A Category	Emissions (tpy)						
		PM/PM_{10}	SO_2	VOC	CO	NO_x	HAPs	
							Single	Total
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					
Storage Tank (Glycerin) 5P01-01	A-13				0.001			
Storage Tank (Glycerin) 5P01-02	A-13				0.001			
Storage Tank (Glycerin) 4Q01-12	A-13				0.001			
Storage Tank (Glycerin) 4Q01-13	A-13				0.001			
FAA-TF-01 (5M04-13)-storage tank	A-13							
RA-TF-01 (5M04-12)-storage tank	A-13							
EX-TF-01 (5M04-08)-storage tank	A-13							
EX-TF-02 (5M04-06)-storage tank	A-13							
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							

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

22. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
1085-AOP-R17

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Facility Name: FutureFuel Chemical Company
Permit Number: 1085-AOP-R18
AFIN: 32-00036

$/ton factor	28.14	Annual Chargeable Emissions (tpy)	6638.1
Permit Type	Minor Mod	Permit Fee $	500

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	☐
If Hold Active Permit, Amt of Last Annual Air Permit Invoice $	0
Total Permit Fee Chargeable Emissions (tpy)	0.1
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 condensible 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		178.7	173.1	-5.6		
PM_{10}		178.7	173.1	-5.6	-5.6	173.1
$PM_{2.5}$		0	0	0		
SO_2		6144.4	6144.4	0	0	4000
VOC		491	496.7	5.7	5.7	496.7
CO		1224.6	1224.6	0		
NO_X		875.4	875.4	0	0	875.4
Inorganics	☑	1092.9	1092.9	0	0	1092.9

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Organic Pollutants	☐	491	496.7	5.7		
Pb	☐	3.5	3.5	0		