#### STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1085-AOP-R16 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:

Christopher Riley

## 4. NAICS DESCRIPTION AND CODE:

NAICS Description:All Other Basic Organic Chemical ManufacturingNAICS 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       | Short Description of Any Changes   |
|---------------------|---------------------------|------------------------------------|
|                     | (New, Renewal,            | That Would Be Considered New or    |
|                     | Modification,             | Modified Emissions                 |
|                     | Deminimis/Minor Mod, or   |                                    |
|                     | Administrative Amendment) |                                    |
| 10/20/2022          | Minor Mod                 | Adding a new natural gas emergency |
|                     |                           | engine                             |

# 6. **REVIEWER'S NOTES**:

FutureFuel Chemical Company, 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. This application was submitted as a minor modification to Permit No. 1085-AOP-R15:

• Add a natural gas emergency engine (SN-4P-EG-01) to the permit

Permitted emission increases are 0.1 tpy SO<sub>2</sub>, PM, PM<sub>10</sub>, VOC, NO<sub>X</sub> and Organic Pollutants as well as 0.4 tpy of CO.

## 7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

Facility was last inspected July 26 and 27, 2021. No violations were found during this inspection.

## 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/A

- b) Is the facility categorized as a major source for PSD? Y
- Single pollutant  $\geq$  100 tpy and on the list of 28 or single pollutant  $\geq$  250 tpy and not on list

If yes for 8(b), explain why this permit modification is not PSD. Based on information submitted, no significant emissions increases for NSR pollutants.

# 9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

| Course                 | Dollutont  | Regulation                    |  |
|------------------------|------------|-------------------------------|--|
| Source                 | Pollutalit | (NSPS, NESHAP or PSD)         |  |
|                        |            | 40 CFR Part 63 Subpart GGG    |  |
| 5N00.01 OCLEUC         | VIIAD      | - National Emission           |  |
| 5N09-01, OCI-FUG       | VHAP       | Standards Pharmaceuticals     |  |
|                        |            | Production                    |  |
|                        |            | 40 CFR Part 63 Subpart        |  |
|                        |            | MMM - National Emission       |  |
| 5N09-01, OCI-FUG       | VHAP       | Standards for Hazardous Air   |  |
|                        |            | Pollutants for Pesticide      |  |
|                        |            | Active Ingredient Production  |  |
| TF-13 (SN-5N03-43)     |            | 40 CFR Part 60 Subpart Kb -   |  |
| WB-06 (SN-6M-03-08)    |            | Standards of Performance for  |  |
| WB-07 (SN-6M-03-09)    |            | Volatile Organic Liquid       |  |
| WB-08 (SN-6M-03-10)    |            | Storage Vessels (Including    |  |
| WB-09 (SN-6M-03-11)    | VOC        | Petroleum Liquid Storage      |  |
| Tanks under SN-5M04-01 |            | Vessels) for Which            |  |
| Tanks under SN-5M04-02 |            | Construction, Reconstruction, |  |
| Tanks under SN-5M04-06 |            | or Modification Commenced     |  |
| Tanks under SN-5M04-08 |            | after July 23, 1984           |  |

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| Source  | Pollutant | Regulation<br>(NSPS, NESHAP or PSD)  |
|---|-----------|--|
| Tanks under SN-5M14-06TFS-60PT-60PT-60PT-68PT69APT69BPB-51PB-52PM-50APM-50BTBA-1004P94-11SN-5N03-51SN-5N03-53T-280T-265T-265T-251T-220T-211AT-211BT-241TF-13PA-50T-242T-243VC-PT-03VC-PT-03VC-PT-01VC-PT-02 |           |  |
| Utilities Section (coal processing activities)  | РМ        | 40 CFR Part 60 Subpart Y-<br>Standards of Performance for<br>Coal Preparation Plants   |
| Organic Sulfonation<br>DIPB Production<br>(Equipment Leaks)   | VOC       | 40 CFR Part 60 Subpart VV -<br>Standards of Performance for<br>Equipment Leaks of VOC in<br>the Synthetic Organic<br>Chemicals Manufacturing<br>Industry                                   |
| 5M01-02   | VOC       | <ul> <li>40 CFR Part 60 Subpart NNN         <ul> <li>Standards of Performance<br/>for Volatile Organic</li> <li>Compound (VOC) Emissions<br/>From Synthetic Organic</li> </ul> </li> </ul> |

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

| Source                       | Pollutant | Regulation<br>(NSPS, NESHAP or PSD) |
|------------------------------|-----------|-------------------------------------|
| 5N07 Production Facility     |           | Organic Chemical                    |
| Aldehyde Processing Facility |           | Manufacturing                       |
| Storage Tanks and Misc.      |           |                                     |
| Sources                      |           |                                     |
| Anode Production Section     |           |                                     |
|                              |           | 40 CFR Part 60 Subpart Db -         |
|                              |           | Standards of Performance for        |
| 6M07-01                      | NOx       | Industrial-Commercial-              |
|                              |           | Institutional Steam                 |
|                              |           | Generating Units                    |
| 5N01-WA                      |           | 40 CFR Part 63 Subpart              |
| 7M04-HT-G01                  |           | ZZZZ - National Emissions           |
| 7M04-HT-G04                  | νμαρ      | Standards for Hazardous Air         |
| 6N02-EG                      |           | Pollutants for Stationary           |
| 8M01                         |           | <b>Reciprocating Internal</b>       |
| 4P-EG-01                     |           | Combustion Engines                  |
|                              |           | Subpart DDDDD—National              |
| 4P05-01                      |           | Emission Standards for              |
| 4P05-03                      | ΗΔΡς      | Hazardous Air Pollutants for        |
| 6M06-01                      | IIAI S    | Major Sources: Industrial,          |
| 6M07-01                      |           | Commercial, and Institutional       |
|                              |           | <b>Boilers and Process Heaters</b>  |
|                              |           | Subpart JJJJ - Standards of         |
| 4P-FG-01                     |           | Performance for Stationary          |
| 41-20-01                     |           | Spark Ignition Internal             |
|                              |           | <b>Combustion Engines</b>           |

# 10. UNCONSTRUCTED SOURCES:

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

# 11. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? N

# 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<br>Frequency |  |  |  |
|---|----------------------|--|--|--|--|
| See permit shield (Plant Wide Condition 33) |                      |  |  |  |  |

# 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:

This permit contains a PAER formula for non-criteria pollutants (See condition PW 14 in the permit). Therefore, modeling of specific non-criteria pollutants was not performed.

c) H<sub>2</sub>S 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 exem | pt from the H <sub>2</sub> S Standards | Y |  |
|----------------------|--|---|--|
| If exempt, explain:  | No H2S                                 |   |  |

# 15. CALCULATIONS:

| SN             | Emission<br>Factor<br>Source<br>(AP-42,<br>testing,<br>etc.) | Emission Factor<br>(lb/ton, lb/hr, etc.)   | Control<br>Equipment | Control<br>Equipment<br>Efficiency | Comments   |
|----------------|--|--|----------------------|------------------------------------|--|
| 5N09-<br>02&03 | AP-42<br>Table 1.4-1<br>Table 1.4-2                          | $VOC: \\ 45cfm \\ 19,391 BTU/lb VOC \\ PM/PM_{10}: \\ 7.6lb/1,000,000scf \\ NO_x: 100lb/1,000,000 \\ scf \\ CO: 84lb/1,000,000 scf \\ SO_2: 0.6 lb/1,000,000 \\ scf \\ \end{tabular}$  | Scrubber             | 98%                                | 2.5MMBtu/hr<br>NO <sub>x</sub> , CO,<br>SO <sub>2</sub> :<br>45 scfm |
| OCI-FUG        | Bagging<br>Study   | <u>VOC</u><br>Pumps/Fans:<br>0.00417lb/hr/component<br>Valves:<br>0.000154<br>lb/hr/component<br>Flanges:<br>0.000057<br>lb/hr/component<br>Relief Devices:<br>0.000168<br>lb/hr/component<br>Simple Ports:<br>0.0086 lb/hr/component      | _                    | -                                  | _  |
| 5N09-01        | AP-42<br>And<br>material<br>balance                          | $\begin{array}{c} \text{PM/PM}_{10} \text{ 8.6 lb/hr} \\ \text{NO}_{X} \text{ 2.7 lb/hr} \\ \text{CO 13.0 lb/hr} \\ \text{SO}_{2} \text{ 6.75 lb/hr} \\ \text{VOC 43 lb/hr} \\ \text{Inorganic emissions 8.2} \\ \text{lb/hr} \end{array}$ |                      |                                    | All numbers<br>are pre-<br>control                                   |
| 5M18-01        | Mass<br>balance  | PM/PM <sub>10</sub> 0.31 lb/100<br>lbs intake  |                      |                                    |  |
| 5M18-02        | Mass<br>balance  | PM/PM <sub>10</sub> 0.3 lbs/100<br>lbs intake  |                      |                                    |  |
| 5M18-03        | AP-42  | PM/PM <sub>10</sub> 10 gr/ft3  |                      |                                    | 600 cfm  |
| 5M16-01        | AP-42  | $PM/PM_{10}$ 1 gr/ft3  |                      |                                    | 1000 cfm   |

| SN             | Emission<br>Factor<br>Source<br>(AP-42,<br>testing,<br>etc.) | Emission Factor<br>(lb/ton, lb/hr, etc.)  | Control<br>Equipment | Control<br>Equipment<br>Efficiency | Comments  |
|----------------|--|---|----------------------|------------------------------------|-----------|
| 5M11-15        | AP-42  | PM/PM <sub>10</sub> 2 gr/ft3              |                      |                                    | 1600 cfm  |
| 5M01-          | Mass   | DM/DM = 2.1  lb/hm                        |                      |                                    |           |
| TSP            | balance  | $PIVI/PIVI_{10}$ 5.1 ID/III               |                      |                                    |           |
| 5M05-02        | Vendor<br>supplied   | PM/PM10 0.02 gr/ft3                       |                      |                                    | 502 dscfm |
| 5M11-08        | Vendor<br>supplied   | PM/PM <sub>10</sub> 0.016 gr/ft3          |                      |                                    | 11585 cfm |
| 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-<br>TNK | Modeling   | VOC 0.00082 lb/hr                         |                      |                                    |           |
| NOBS-<br>FUG   | Bagging<br>Study   | VOC 0.96 lb/hr                            |                      |                                    |           |
|                |  | VOC 0.0518 lb/MMBtu                       |                      |                                    |           |
|                |  | Organic emissions                         |                      |                                    |           |
|                | AP-42 and  | 0.0882 lb/MMBtu                           |                      |                                    |           |
| 5N03-54        | TANKS  | CO 0.37 lb/MMBtu                          |                      |                                    |           |
|                | 4.0  | NO <sub>X</sub> and SO <sub>2</sub> 0.068 |                      |                                    |           |
|                |  | lb/MMBtu                                  |                      |                                    |           |
|                |  | PM/PM10 0.013 lb/hr                       |                      |                                    |           |
| DIPB-<br>FUG   | Bagging<br>study   | VOC 0.2 lb/hr                             |                      |                                    |           |

| SN                 | Emission<br>Factor<br>Source<br>(AP-42,<br>testing,<br>etc.) | Emission Factor<br>(lb/ton, lb/hr, etc.)  | Control<br>Equipment | Control<br>Equipment<br>Efficiency | Comments                               |
|--------------------|--|---|----------------------|------------------------------------|--|
| 5N03-48            | Mass<br>balance  | Inorganics 0.09 lb/hr   |                      |                                    |  |
| 5N03-55            | Mass<br>balance  | Inorganics 0.009 lb/hr  |                      |                                    |  |
| 5NDIPB-<br>TNK     | TANKS  | VOC 0.061 lb/hr   |                      |                                    |  |
| 5N07               | TANKS<br>and other<br>modeling                               | VOC 2.67 lb/hr  |                      |                                    |  |
| 4P05-01<br>4P05-03 | TANKS<br>and other<br>modeling                               | VOC 1.3 lb/hr<br>PM/PM <sub>10</sub> 0.2 lb/hr<br>NO <sub>X</sub> 2.1 lb/hr<br>CO 1.0 lb/hr<br>SO <sub>2</sub> 0.8 lb/hr  |                      |                                    |  |
| 4PSR-<br>FUG       | Bagging<br>study   | VOC 0.57 lb/hr  |                      |                                    |  |
| CP2-FUG            | Baggins<br>study   | VOC 0.32 lb/hr  |                      |                                    |  |
| 5M11-09            | Vendor<br>supplied   | 0.016 gr/ft3  |                      |                                    |  |
| 4PSR-00            | Modeling   | VOC 3.85 lb/hr after<br>control   |                      |                                    |  |
| SR-FUG             | Bagging<br>study   | VOC 2.14 lb/hr  |                      |                                    |  |
| 5N03TK-<br>01      | TANKS<br>4.0   | VOC 8.0 lb/hr   |                      |                                    |  |
| 6N01-02            | TANKS<br>4.0   | VOC 2.53 lb/year  |                      |                                    |  |
| 6N01-03            | TANKS<br>4.0   | VOC 1248 lb/yr  |                      |                                    |  |
| 6M01-01            | AP-42,<br>Monitoring,<br>and testing                         | VOC 0.05 lb/ton<br>PM/PM <sub>10</sub> 0.44 lbs/ton<br>NO <sub>X</sub> 11 lb/ton<br>CO 2000 ppmv<br>SO <sub>2</sub> 76 lb/ton<br>HCl 1.2 lb/ton<br>Inorganics 302.3 lb/hr |                      |                                    | Coal burning<br>boilers<br>24000 dscfm |
| BLR-FUG            | Bagging<br>study   | VOC 0.41 lb/hr  |                      |                                    |  |

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| SN            | Emission<br>Factor<br>Source<br>(AP-42,<br>testing,<br>etc.) | Emission Factor<br>(lb/ton, lb/hr, etc.)  | Control<br>Equipment | Control<br>Equipment<br>Efficiency | Comments |
|---------------|--|---|----------------------|------------------------------------|----------|
| 6M01-<br>01A  | AP-42  | PM/PM <sub>10</sub> 0.02 gr/scf   |                      |                                    | 880 scfm |
| 6M06-01       | AP-42 and<br>BACT  | NO <sub>X</sub> 13.3 lb/hr<br>CO 84 lb/MMscf<br>PM/PM <sub>10</sub> 5.7 lb/MMscf<br>SO <sub>2</sub> 0.6 lb/MMscf<br>VOC 5.5 lb/MMscf  |                      |                                    |          |
| 6M07-01       | AP-42 and<br>BACT  | NO <sub>X</sub> 0.1 lb/MMBtu<br>CO 84 lb/MMscf<br>PM/PM <sub>10</sub> 5.7 lb/MMscf<br>SO <sub>2</sub> 0.6 lb/MMscf<br>VOC 5.5 lb/MMscf  |                      |                                    |          |
| 6M03-05       | AP-42 and<br>bagging<br>study                                | $\begin{array}{c} \text{VOC 0.9 lb/hr} \\ \text{PM/PM}_{10} \ 0.44 \ \text{lb/hr} \\ \text{NO}_{\rm X} \ 15.97 \ \text{lb/hr} \\ \text{CO 2.05 lb/hr} \\ \text{SO}_2 \ 10.19 \ \text{lb/hr} \\ \text{Inorganics 1.4 lb/hr} \end{array}$ |                      |                                    |          |
| DEST-<br>FUG  | Bagging<br>study   | VOC 0.38 lb/hr  |                      |                                    |          |
| 7K01-01       | Toxchem<br>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-<br>B | Toxchem<br>modeling  | Inorganics 0.06 lb/hr   |                      |                                    |          |
| 7M01-04       | Toxchem<br>modeling  | VOC 0.01 lb/hr  |                      |                                    |          |
| 4P-EG-01      | EPA cert   |   |                      |                                    |          |

#### 16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

| SN      | Pollutants                                      | Test Method                 | Test Interval | Justification                                   |
|---------|---|-----------------------------|---------------|---|
| 5N09-03 | SO <sub>2</sub><br>VOC<br>CO<br>NO <sub>x</sub> | Method 26 or<br>26A, or 320 | 5 years       | To ensure<br>compliance with<br>emission 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<br>to be Monitored | Method<br>(CEM, Pressure Gauge, etc.) | Frequency  | Report (Y/N) |
|---------|---|---------------------------------------|------------|--------------|
| 5N09-03 | Temperature                               | Not Specified                         | Continuous | No           |

# 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<br>4P05-03<br>6M06-01<br>6M07-01 | Fuel analyses,<br>compliance<br>mechanisms,<br>performance<br>tests | N/A                    | -                | Y            |
| 4P05-01<br>4P05-03                       | Tune-up   | N/A                    | Initial, 5 years | Ν            |
| 6M06-01<br>6M07-01                       | Tune-up   | N/A                    | Initial, 2 years | Ν            |
| 6N02-EG<br>4P-EG-01                      | Operational<br>hours  | 100 hours<br>250 hours | Calendar year    | Ν            |

# 19. OPACITY:

| SN                               | Opacity | Justification for limit                | Compliance<br>Mechanism |
|----------------------------------|---------|--|-------------------------|
| 5N09-01, 5N09-02,<br>and 5N09-03 | 20%     | Previous limit.<br>Department Guidance | Weekly Method 22        |

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| SN                      | Opacity  | Justification for limit | Compliance<br>Mechanism   |
|-------------------------|--|-------------------------|---|
|                         |  |                         | Method 9 if any<br>visible emissions<br>detected.                     |
| 6M01                    | 5%   | §18.501                 |   |
| 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                 | Method 9  |
| 5M11-08 and 5M11-<br>09 | 5%   | §18.501                 | Weekly Method 22<br>Method 9 if any<br>visible emissions<br>detected. |
| 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<br>4P05-03      | 5% except during<br>periods of fuel oil<br>usage for 4P05-01,<br>which the permittee<br>is allowed 20% | §18.501                 | Weekly Method 22<br>Method 9 if any<br>visible emissions<br>detected. |
| 4P-EG-01                | 5%   | §19.503                 | Daily Method 9 once<br>operation exceeds 24<br>consecutive hours      |

# 20. DELETED CONDITIONS:

| Former SC | Justification for removal |  |  |  |
|-----------|---------------------------|--|--|--|
| N/A       |                           |  |  |  |

# 21. GROUP A INSIGNIFICANT ACTIVITIES:

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

| Source C<br>Name C                           | Croup A  | Emissions (tpy)     |                 |     |    |                 |        |       |
|--|----------|---------------------|-----------------|-----|----|-----------------|--------|-------|
|  | Category | PM/PM <sub>10</sub> | SO <sub>2</sub> | VOC | СО | NO <sub>x</sub> | HAPs   |       |
|  | Category |                     |                 |     |    |                 | Single | Total |
| Vents<br>(Organic<br>Sulfonation<br>Process) | 5M11-09  | A-13                |                 |     | 0  |                 | 0      | 0     |

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| Unloading<br>Station<br>(Isopropyl<br>Benzene<br>Process) | 5N03-46                    | A-13 |     | 0.23   | 0.23  | 0.23  |
|---|----------------------------|------|-----|--------|-------|-------|
| Unloading<br>Station<br>(Isopropyl<br>Benzene<br>Process) | 5N03-47                    | A-13 |     | 0      | 0     | 0     |
| Railcar<br>Loading and<br>Unloading<br>Racks              | 4Q01-12                    | A-13 |     | 0.0112 | 0     | 0     |
| Sawdust pile<br>and handling                              |                            | A-13 | 2.0 |        |       |       |
| 5P01-01   | Storage Tank<br>(Glycerin) | A-13 |     | 0.001  |       |       |
| 5P01-02   | Storage Tank<br>(Glycerin) | A-13 |     | 0.001  |       |       |
| 4Q01-12   | Storage Tank<br>(Glycerin) | A-13 |     | 0.001  |       |       |
| 4Q01-13   | Storage Tank<br>(Glycerin) | A-13 |     | 0.001  |       |       |
| A-13 Totals   |                            |      | 2.0 | 0.25   | 0.23  | 0.23  |
| Storage<br>Tank<br>(Organic<br>Sulfonation<br>Process)    | 5M04-04                    | A-4  |     |        |       |       |
| Storage<br>Tank<br>(Organic<br>Sulfonation<br>Process)    | 5M04-07                    | A-4  |     |        |       |       |
| Storage<br>Tank<br>(Solvent<br>Recovery<br>Process)       | 4P94-03                    | A-4  |     |        |       |       |
| Storage<br>Tank<br>(Storage<br>Tank<br>Process)           | 5N03-39                    | A-4  |     |        |       |       |
| Storage<br>Tank<br>(Storage<br>Tank<br>Process)           | 5N03-40                    | A-4  |     |        |       |       |
| Storage<br>Tank<br>(Chemical<br>Destruction<br>Process)   | 6M03-15                    | A-4  |     |        |       |       |
| Caustic<br>Tank (CL-<br>01R)                              | -                          | A-4  |     |        |       |       |
| Storage<br>Tank<br>(Organic<br>Chemical                   | 5N01-63                    | A-3  |     | 0.001  | 0.001 | 0.001 |

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| Intermediate<br>Process)  |         |     |  |       |       |       |
|---|---------|-----|--|-------|-------|-------|
| Storage<br>Tank<br>(Organic<br>Chemical<br>Intermediate<br>Process) | 5N01-64 | A-3 |  | 0.001 | 0.001 | 0.001 |
| Storage<br>Tank<br>(Organic<br>Chemical<br>Intermediate<br>Process) | 5N03-63 | A-3 |  | 0.001 | 0.001 | 0.001 |
| Storage<br>Tank<br>(Storage<br>Tank<br>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-R15 |

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

# Fee Calculation for Major Source

Facility Name: FutureFuel Permit Number: 1085-AOP-R16 AFIN: 32-00036

| \$/ton factor<br>Permit Type  | 27.27<br>Minor Mod | Annual Chargeable Emissions (tpy)<br>Permit Fee \$ | 6036.7<br>500 |
|---|--------------------|--|---------------|
| Minor Modification Fee \$   | 500                |  |               |
| Minimum Modification Fee \$   | 1000               |  |               |
| Renewal with Minor Modification \$  | 500                |  |               |
| Check if Facility Holds an Active Minor Source or Minor<br>Source General Permit  | r<br>              |  |               |
| If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$<br>Total Permit Fee Chargeable Emissions (tpy)<br>Initial Title V Permit Fee Chargeable Emissions (tpy) | 0<br>1.06          |  |               |

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.)

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|                   | Check if   |            |            |                     | Permit Fee | Annual     |
|-------------------|------------|------------|------------|---------------------|------------|------------|
|                   | Chargeable |            |            |                     | Chargeable | Chargeable |
| Pollutant (tpy)   | Emission   | Old Permit | New Permit | Change in Emissions | Emissions  | Emissions  |
| РМ                |            | 178.6      | 178.7      | 0.1                 |            |            |
| $PM_{10}$         |            | 178.6      | 178.7      | 0.1                 | 0.1        | 178.7      |
| PM <sub>2.5</sub> |            | 0          | 0          | 0                   |            |            |
| SO <sub>2</sub>   |            | 6144.3     | 6144.4     | 0.1                 | 0          | 4000       |
| VOC               |            | 490.87     | 491.3      | 0.43                | 0.43       | 491.3      |
| со                |            | 1224.2     | 1224.6     | 0.4                 |            |            |
| NO <sub>X</sub>   |            | 875.3      | 875.4      | 0.1                 | 0.1        | 875.4      |
| Pb                |            | 3.5        | 3.5        | 0                   |            |            |

| Pollutant (tpy)    | Check if<br>Chargeable<br>Emission | Old Permit | New Permit | Change in Emissions | Permit Fee<br>Chargeable<br>Emissions | Annual<br>Chargeable<br>Emissions |
|--------------------|------------------------------------|------------|------------|---------------------|---------------------------------------|-----------------------------------|
| Inorganics         |                                    | 1092.9     | 1092.9     | 0                   |                                       |                                   |
| Organic Pollutants | ✓                                  | 490.87     | 491.3      | 0.43                | 0.43                                  | 491.3                             |